UNIVERSITY OF CAPE COAST

SPIRITUALITY, SOCIAL SUPPORT AND QUALITY OF LIFE OF PERSONS LIVING WITH HIV/AIDS

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2023

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BY

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Thesis submitted to the Department of Education and Psychology of the Faculty of Educational Foundations, College of Education Studies, University of Cape Coast, in partial fulfillment of requirements for the award of Master of Philosophy degree in Clinical Health Psychology

SEPTEMBER 2023

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: ………………………………………………………………………….

Supervisor’ Declaration

I 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.

Supervisor’s Signature:................................... Date:.....................................

Name: ………………………………………………………………………….

ABSTRACT

HIV is a virus that attacks white blood cells, weakening the immune system, and leading to the development of AIDS. It affects the poor, rich, uneducated and educated in both underdeveloped and developed countries, with higher rates in third-world countries like Ghana. The purpose of the study was to examine the spirituality, social support and quality of life of HIV/AIDS patients at the Cape Coast Teaching Hospital. A descriptive quantitative research design was used in the study. Using the convenience sampling technique, a sample size of 196 from the accessible population of 3,000 persons living with HIV/AIDS and receiving treatment at the Cape Coast Teaching Hospital was utilized. Participants answered a 50-item questionnaire that measured quality of life, social support and spirituality. The study found that people living with HIV/AIDS in Cape Coast Metropolis have a good quality of life, social support, and spirituality. Also, social support was a significant predictor of quality of life and its dimensions. Again, spirituality was a significant predictor of all the dimensions of quality of life and indirect influence on social support. The study recommends that the Ministry of Information, the Ghana Health Service, the Media, and NGOs should develop appropriate information, education, and communication materials to raise public awareness of the disease and educate the public about social isolation and stigma associated with HIV/AIDS.

ACKNOWLEDGEMENTS

Not to us, Oh Lord, but to your name be the glory for this accomplishment. I thank Most Rev. Gabriel Charles Palmer-Buckle, Metropolitan Archbishop of Cape Coast for his fraternal love and support, and for giving me the opportunity to study. I am, exceedingly indebted to my supervisor, Professor Emmanuel Gyimah, Department of Education and Psychology, UCC, for his priceless and patient contributions and suggestions, and above all for providing time, constructive criticism, support, and encouragement in making the completion of this work a success. I am grateful to the Management of Cape Coast Teaching Hospital for granting me permission to conduct this study legally. I am also appreciative of Very Rev. Fr. George Opoku Danso and Rev. Frs: Enoch Asmah, Stephen Afful, Emmanuel Kwesi Fynn, Evans Afful, and Eric Bosomtwe. I am grateful to Mrs. Stella Abama Brakye Baiden and Angela Amofa-Appiah for providing financial support and to Ms. Mariam Adama for helping me with the typing. A big thank you to St. Stephens Parish (Dunkwa On-Offin) and St. Edward Parish (Jukwa). I also extend my gratitude to my big brothers, Very Rev. Fr Joseph Tekyi Chancellor of the Archdiocese of Cape Coast and Very Rev. Fr Emmanuel Abbey-Quaye for their proofreading and editorial work.

May the Almighty God bless you all.

DEDICATION

To the marginalized, stigmatized, voiceless, hustlers and street children

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LIST OF ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
ARV	Anti-Retroviral
CCTH	Cape Coast Teaching Hospital
CCTHERB	Cape Coast Teaching Hospital Ethical Review Board
HAART	High activity antiretroviral therapy
HBM	Health Belief Model
HIV	Human Immune Virus
MSPSS	Multidimensional Scale of Perceived Social Support
PLWHA	Persons Living with HIV/AIDS
QoL	Quality of Life
SO	Significant Other
SS	Spirituality Scale
SS	Social Support
WHO	World Health Organisation

CHAPTER ONE

INTRODUCTION

Spiritual health is a dimension of human wellness that integrates all dimensions of health: physical, emotional, mental, and social. Spiritual health creates meaning in life, cultivates altruism and ethics, and is based on individual perceptions convincing us of our ability to survive. HIV-related stigma beliefs and spiritual struggle (anger, alienation from God) have been associated with higher levels of depression, loneliness, AIDS stands for acquired immunodeficiency syndrome. AIDS is the most advanced stage of HIV infection. HIV attacks and destroys the infection-fighting CD4 cells (CD4 T lymphocyte) of the immune system. In addition, there are important spiritual impacts a diagnosis of HIV can confer, including dramatically shaping patients' belief in self competence, their ability to cope with the disease, and even the physiological course of the disease.

Background to the Study

Many individuals living with Human Immune Virus / Acquired Immune Deficiency Syndrome (HIV/AIDS) struggle with psychosocial influences, such as poverty, stigma, depression, substance abuse, domestic violence, and/or cultural beliefs. Quality of life (QoL), which may include aspects such as physical functioning, social functioning, mental health, pain, and energy is usually compromised. Quality of life should be patient-centred and driven. For this concept to have significant meaning in patient care, the individual and his or her cultural beliefs must be taken into consideration. Some of the more debilitating psychosocial factors affecting QoL of persons living with

HIV/AIDS are limited access to medical care because of poverty, the stigma of being infected with HIV, mental health concerns, illicit drug use, and domestic violence (Okonkwo et al., 2022). Persons living with HIV/AIDS may experience judgmental/critical (i.e., stigmatising) attitudes from uninfected or HIV-negative patients. Infected individuals may be judged negatively for contracting HIV. Fear of stigma, when an HIV diagnosis becomes public, remains prevalent and is associated with shame. Both HIV-positive men and women have depression correlated with HIV infection (Owusu, 2020).

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 claiming 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 (WHO, 2016). According to the WHO (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 represent 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). Persons living with HIV/AIDS go through severe emotional problems that may be related to their socioeconomic situation, psychological makeup and coping abilities, the medical parameters of the disease, and other forms of adjuvant treatment, the side effects of the treatment, and the availability of emotional and financial support (Anakwa et al., 2021; Nguyen et al., 2019).

Anakwa et al. (2021) opined that people living with HIV/AIDS may have a reduced quality of life, reduced perception of well-being, feelings of hopelessness, lack of optimism, spiritual dryness, and many other challenges. Therefore, how do spirituality and social support influence the QOL of people living with HIV/AIDS? Spirituality and social support appear to be adopted as part of the mechanisms or strategies for coping with their condition. Religious organisations play a crucial role in providing psychosocial support to PLWHA in Ghana.

Faith-based communities are often seen as vital sources of emotional and social support. These congregations can foster environments that empower PLWHA, helping them manage their health and improve their quality of life through spiritual engagement and community solidarity. However, there is a duality in their role; while they can provide significant support, they can also perpetuate stigma and discrimination, which may hinder access to care (Fürj Kuhn, 2023). Research indicates that spiritual beliefs can positively influence the experiences of PLWHA. Many individuals find solace and hope in their faith, which can enhance their adherence to treatment and overall well-being. However, the stigma associated with HIV often leads to fears of disclosure within religious communities, which can limit the potential support available from these groups (Saah et al., 2024).

An individual's view of their place in life regarding their objectives, expectations, standards, and concerns in the context of the culture and value systems in which they live is termed Quality of Life (QoL) by WHO (1993). Quality of life is defined as “an individual's perception of their position in life in the context of the culture and value systems in which they live and about their goals, expectations, standards and concerns (WHO, 2017). Quality of life also describes an individual’s perception of the position in life in the context of the culture and value systems in which they live about their goals, expectations, values and concerns (Megari, 2013). Again, it involves incorporating physical health, psychological state, level of independence, social relations, personal beliefs and their relationship to salient features of the environment (Megari, 2013). Other views situate quality of life in a subjective, objective and existential and integrative context (Liégeois, 2014).

According to Joseph, Ainsworth, Mathis, Hooker and Keller (2017), spirituality should be understood as a more general, unstructured, personalized, and naturally occurring phenomenon, where a person seeks closeness and/or connectedness between him/herself and a higher power or purpose. Other authors define spirituality in terms of the search for universal truth and as an activity enabling people to discover meaning and significance in the surrounding world (Woods & Ironson, 1999).

Spirituality has a true impact on everything from the roots of illness to how people survive. Therefore, this is becoming increasingly essential. Koenig (2003) reported that patients who get health care place spiritual care as a high priority during hospitalization. A case for adding spirituality to quality of life measuring in oncology was conducted by Brady, Peterman, Fitchett, Mo, & Cella (1999). Who found spirituality to be connected with Quality of Life to the same magnitude as physical well-being. Spirituality is an important aspect of

QoL and in coping with a disease (Lucchetti et al., 2010). Associations have been demonstrated between greater spirituality and a better quality of life (Panzini et al., 2007; Lucchetti et al., 2012). Hence, the assessment of persons living with HIV/AIDS and spirituality is an essential step to raise awareness of the importance of these factors in this population's life and wellbeing, as well as to promote actions that help the patients in their contact with the disease, its treatments and its harmful aspects in different contexts of daily life (Lucchetti et al., 2012).

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 (Aknin et al., 2011; Sosnowy et al., 2019). It has been recommended that social support from several supportive sources is the best. Social support can affect how 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. Lack of social support can be considered a risk factor for morbidity and mortality (Barth et al., 2010; Graham & Barnow, 2013; Feeney & Collins, 2015). Social support is critical for improving the quality of life among PLWHA in Ghana. Saah et al. (2024) found that those who disclosed their HIV status to family and friends were more likely to receive social and material support, which are significant predictors of quality of life. Approximately 76.9% of those who disclosed their status reported having social support (Saah et al., 2024).

Research work has shed some light on the relationship between social support and health outcomes of persons living with HIV/AIDS (PLWHA). A study conducted by Park et al. (2016) in a 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. Furthermore, Subramanian, Mohan, Nandi and Rajeshwari (2021) showed 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 the 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 the quality of life of PLWHA.

Similarly, a study by Yadav (2010), revealed a positive relationship between perceived social support and the quality of life of PLWHA. However, the available research does not highlight the effects of perceived social support on the quality of life of people living with HIV/AIDS. The effect of the perceived social support on the quality of life of PLWHA represents the need to examine how the collective effects of family, friends and significant others affect the quality of life of persons living with HIV/AIDS.

In Ghana, where cultural beliefs, stigma, and limited resources profoundly impact the lives of individuals living with HIV/AIDS, exploring the influence of spirituality and social support on their quality of life (QoL) is critical. This study is vital as it addresses the unique psychosocial challenges faced by Ghanaian PLWHA, including the dual role of religious communities in both supporting and stigmatising individuals. By understanding how spirituality and social support enhance QoL, the study aims to inform culturally sensitive interventions that improve well-being and reduce the adverse effects of stigma, thereby contributing to public health efforts in Ghana.

Statement of the Problem

HIV/AIDS patients experience a broad spectrum of psychosocial challenges that extend beyond their health status and medical treatments. These challenges often include dealing with stigma, discrimination, social isolation, and the psychological burden of managing a chronic illness. According to Lokpo et al. (2020), HIV continues to be one of the most critical health threats in Ghana, affecting individuals and communities both medically and socially. Midtbø et al. (2012) investigated how HIV-infected adolescents in sub-Saharan Africa cope with stigma through disclosure and antiretroviral therapy (ART), specifically in Botswana and Tanzania. Their study revealed that many HIV patients must navigate different forms of stigmatisation, which impacts how they adjust psychosocially. These experiences of stigma, in turn, influence their emotional well-being and ability to manage their condition effectively.

In Ghana, Dako-Gyeke et al. (2015) conducted a study focused on the stigmatisation and discrimination faced by persons living with HIV/AIDS (PLWHAs) in accessing health services. They used qualitative research methods and recruited 42 participants at Amasaman in Accra. Their findings revealed that PLWHAs were well aware of the stigma surrounding their condition, which they experienced through three main mechanisms: enacted stigma (actual experiences of discrimination), anticipated stigma (fear of potential stigma), and internalised stigma (self-stigmatization). These stigmatisation experiences significantly affect the psychosocial adjustment of PLWHAs, creating barriers to health-seeking behaviours and diminishing their quality of life (QoL).

Given this background, two important questions emerge: (1) To what extent do spirituality and social support influence the QoL of HIV/AIDS patients amid the social, psychological, and religious stigmas that exist in Ghanaian culture? and (2) How do patients adopt spirituality and social support as coping mechanisms or strategies to improve their QoL? These questions are critical because while numerous studies have explored the QoL of HIV/AIDS patients both in Ghana and internationally (Okonkwo et al., 2022; Nguyen et al., 2019; Midtbø et al., 2012; Anakwa et al., 2021; Lokpo et al., 2020; Opoku et al., 2022), there is a paucity of research specifically examining the role of spirituality and social support in the context of HIV/AIDS management in Ghana, particularly at major healthcare centres like Cape Coast Teaching Hospital.

Cape Coast Teaching Hospital is a regional facility that serves a significant number of persons living with HIV/AIDS. Despite its prominence, little to no research has been conducted on the QoL of its HIV/AIDS patients. Understanding the psychosocial dimensions of HIV/AIDS in this setting is crucial, as it may provide valuable insights into the broader challenges faced by PLWHAs in Ghana. For example, Liping et al. (2015) conducted a study in Zhejiang province, China, to evaluate the QoL of PLWHAs. They assessed how demographic, laboratory and disease-related factors influenced QoL and found that younger individuals, those with higher education levels, higher CD4 counts, and strong access and adherence to ART tended to report better QoL. This study underscores the idea that QoL among PLWHAs is shaped by more than just medical treatment; social and environmental factors play a significant role as well.

Similarly, Hipolito et al. (2017) conducted research in Brazil to analyse the QoL of PLWHAs and their relationship with sociodemographic factors, health satisfaction, and the duration since diagnosis. The study found that greater health satisfaction was linked to better QoL and statistically significant differences was observed in QoL based on variables such as gender, employment status, family income, personal income, religious beliefs, and the time elapsed since diagnosis. Their findings suggest that spirituality and social relationships are important coping mechanisms that can help PLWHAs better navigate the emotional and social challenges associated with the disease. This is particularly relevant in the context of Ghana, where cultural and religious factors play a critical role in shaping how individuals manage chronic illnesses.

In West Africa, Yaya et al. (2019) conducted a study on the QoL of HIV/AIDS patients in Togo. The objective was to assess the overall QoL of PLWHAs and identify the factors associated with better QoL. The study found that a higher level of education, access to ART, living in the Kara region, and HIV status disclosure were all positively associated with better QoL. These findings are important because they highlight the role of educational and environmental factors in shaping how PLWHAs experience their illness and manage the social stigma associated with it. The study also pointed to the importance of strengthening healthcare providers' competencies in HIV-related care and encouraging interventions that promote HIV status disclosure as part of a broader strategy to improve QoL.

In the Ghanaian context, Osei-Yeboah et al. (2017) investigated the QoL of HIV/AIDS patients attending antiretroviral clinics in the Ho municipality. Their study revealed that patients' occupations, perceptions of health, sexual activity, and disease status were all associated with variations in QoL. They found that being an HIV-infected man, a symptomatic patient, or someone who was not sexually active or ART-naive was linked to poorer QoL across multiple domains. These findings align with broader global research but also point to the need for more specific studies in different regions of Ghana, particularly regarding the role of spirituality and social support in managing HIV/AIDS.

Despite the wealth of existing research on the QoL of HIV/AIDS patients, there remains a gap in understanding how spirituality and social support contribute to managing the psychosocial burdens associated with the disease in Ghana. Spirituality, for many Ghanaians, serves as an important coping mechanism, offering emotional resilience and hope in the face of chronic illness. Similarly, social support from family, friends, and healthcare providers can act as a buffer against the negative psychological impacts of HIV-related stigma. Given the significant role that these factors may play, this study aims to explore how spirituality and social support influence the QoL of PLWHAs at Cape Coast Teaching Hospital. By addressing this gap in the literature, the study hopes to contribute valuable insights into the holistic management of HIV/AIDS in Ghana.

Purpose of the Study

Generally, the study explored the spirituality, social support and quality of life of HIV/AIDS patients. Precisely, the study sought to:

1. assess the quality of life of persons living with HIV/AIDS
2. explore the level of spirituality of persons living with HIV/AIDS
3. establish the level of social support for persons living with HIV/AIDS
4. determine whether social support predicts the quality of life of persons living with HIV/AIDS
5. examine whether spirituality predicts the quality of life of persons living with HIV/AIDS
6. investigate the relationship between social support and spirituality of persons living with HIV/AIDS

Research Questions

1. What is the quality of life of persons living with HIV/AIDS in Cape Coast Teaching Hospital?
2. What is the level of social support for persons living with HIV/AIDS in Cape Coast Teaching Hospital?
3. What is the level of spirituality of persons living with HIV/AIDS in Cape Coast Teaching Hospital?

Research Hypothesis

1. Ho: Social support will not significantly predict the quality of life for persons living with HIV/AIDS in Cape Coast Teaching Hospital

   HI: Social support will significantly predict the quality of life for persons living with HIV/AIDS in Cape Coast Teaching Hospital.

2. Ho: Spirituality will not significantly predict the quality of life for persons living with HIV/AIDS in Cape Coast Teaching Hospital

   H1: Spirituality will significantly predict the quality of life for persons living with HIV/AIDS in Cape Coast Teaching Hospital
3. Ho: There will be no significant relationship between social support and spirituality in persons living with HIV/AIDS in Cape Coast Teaching Hospital

   H1: There will be a significant relationship between social support and spirituality in persons living with HIV/AIDS in Cape Coast Teaching Hospital

Significance of the study

This study is important both practically and theoretically in enhancing the quality of life of persons living with HIV/AIDS (PLWHA). Practically, the research could lead to workshops or seminars that educate religious leaders and social influencers on addressing HIV/AIDS stigma in churches, mosques, shrines, and other community settings. By encouraging open discussions, the study aims to reduce stigma and promote support for PLWHA. It also advocates for healthcare workers, particularly in HIV/AIDS units, to use positive and hopeful language when interacting with patients, fostering a more compassionate care environment.

The study's findings could inform policies, such as introducing chaplains or spiritual counsellors into HIV care units to offer spiritual support. Additionally, educating families and friends of PLWHA on providing emotional and practical support can improve the overall well-being of these individuals.

Theoretically, the research fills gaps in the literature on how spirituality and social support impact the quality of life for PLWHA, especially in the Ghanaian context. Methodologically, the study can serve as a model for future research, allowing its design and tools to be applied in other settings to further explore the role of social and spiritual factors in HIV/AIDS care.

Delimitations

This study is geographically delimited to the Cape Coast Teaching Hospital in the Central Region of Ghana, specifically focusing on persons living with HIV/AIDS (PLWHA) who receive care at this hospital. The research is centred on exploring the role of spirituality and social support in shaping the quality of life of PLWHA. It examines how these two factors help patients cope with the various challenges associated with HIV/AIDS, including social and psychological stigma.

Limitations

The limitations of this study stem primarily from the descriptive research design employed. Since the study only observes and measures variables without manipulation or control, it cannot establish causal relationships between spirituality, social support, and the quality of life of persons living with HIV/AIDS. This limits the ability to determine if these factors directly influence the quality of life or if other variables contribute. Additionally, the reliance on self-reported data may introduce biases such as social desirability or recall bias, affecting the accuracy of the information collected. While the descriptive approach allows for an in-depth examination of the research problem, its inability to explore underlying causes means that findings are primarily correlational. Lastly, generalizing the results to broader populations is challenging due to contextual variations.

Definition of Terms

Quality of life: it refers to the harmony within an individual which comprises Physical health, psychological condition, independence, relationships with others, and the environment one lives in.

Spirituality: it is concerned with the harmonious relationship between humanity and the Object of Faith (God); humanity, and humanity and the environment:

Social support: it refers to the physical, emotional and psychological comfort given to persons by their families, friends, co-workers and others. A feeling that one is part of the society amidst all the challenges.

Organisation of the Study

The thesis starts with Chapter one as an introductory chapter that includes the background of the study, statement of the problem, purpose, research questions, the significance of the study, a summary of the organization of the study, and operational definitions. In Chapter two, the researcher provides a review of the literature relevant to the thesis; that is, spirituality, social support and quality of life of persons living with HIV/AIDS, the conceptual and theoretical framework. Chapter three discusses the methodology of the study with an overview of the variety of methods employed within the thesis. Chapter four, thus, present the results of the data. Chapter five provides a summary and conclusions. It also suggests other areas for other researchers to consider.

CHAPTER TWO

LITERATURE REVIEW

This study investigated the influence of spirituality and social support on the quality of life of persons living with HIV/AIDS. The literature was reviewed in the following areas: Theoretical review, Conceptual review, Empirical review and Conceptual Framework.

Theoretical Review

This aspect explains the relevant theories that apply to the study. For this study, three main theories were reviewed. These include the Health Belief Model, the Theory of Planned Behaviour and the Biopsychosocial Model.

Health Belief Model (HBM) (Rosenstock, Strecher & Becker, 1994)

The health belief model was initially developed by Rosenstock in the 1960s and further by Becker and colleagues throughout the 1970s and 1980s to predict preventive health behaviours and also the behavioural response to treatment in acutely and chronically ill patients (Glanz, Rimer & Viswanath, 2008). In recent years, however, the health belief model has been used to predict a wide variety of health-related behaviours in several conditions (Jones, Smith & Llewellyn, 2014). Thus, the model has been seen as one of the important propositions that guide both action and research in the field of health and health-related management issues. Additionally, the health belief model helps in explaining how an individual's perception of an illness influences his/her line of action and addresses the individual's perceptions of the threat posed by a health problem (susceptibility, severity), the benefits of avoiding the threat, and factors influencing the decision to act (barriers, cues to action, and self-efficacy).

The HBM has been applied in studies to predict recovery method preference among those who need help medically (Hall, 2012; Loke, Davies & Li, 2015). The model is a psychological health behaviour change model developed to explain and predict health-related behaviours. The HBM posits that people's beliefs about whether they are or they are not susceptible to disease, and their perceptions of the benefits of trying to avoid it, influence their readiness to engage in health-promoting behaviour. The model explores the relationship between belief and behaviour. Based on the model, six main constructs have been identified to predict behaviour; perceived susceptibility, perceived severity, perceived benefits, perceived barriers, modifying factors or variables, cue to action, and perceived self-efficacy (Champion & Skinner, 2008). Perceived susceptibility looks at the risk involved in carrying out health-related behaviour. Perceived severity looks at the severity of the risk involved or the potential consequences/complications associated with the health-related behaviour. Perceived benefits look at the benefits/advantages that will be achieved when one engages in health-related behaviour. Perceived barriers are the obstacles an individual perceives with a health-related behaviour.

According to Roden (2004), "the Health Belief Model predicts that behaviour is a result of a set of core beliefs, which have been redefined over the years". The core beliefs that were proposed by the proponents of the health belief model are built around the individual's subjective interpretations and perception in terms of susceptibility to illness, the severity of the illness, the costs involved in carrying out the behaviour, the benefits involved in carrying out the behaviour and cues to action, which may be internal or external. However, as the health belief model has been criticised certain reforms or modifications were made to include the construct “health motivation” to reflect an individual’s readiness to be concerned about health matters and Roden has also suggested that perceived control should be added to the model. These additions or modifications have made the health belief model applicable in many health-related situations. For instance, the perception of control either real or imagined can, to some extent, determine how the individual will act in the face of a health threat. That is, if the individual thinks that s/he can do something about the health threat posed by a condition, more efforts will be put into place rather than when there is perceived uncontrollability on the part of the individual.

The HBM is based on the assumption that a person will take a health-related action or perform a health-related behaviour if the person feels that a negative health condition can be avoided; has a positive expectation that he will avoid a negative health condition by taking a recommended action; and believes that they can successfully take a recommended action (Conner, 2010). Research findings have provided support for the health belief model in predicting a variety of health-related behaviours including dietary compliance, safe sex, having vaccinations, making regular dental visits and taking part in regular exercise programmes. These health-related behaviours are believed to be related to the individual’s perception of susceptibility to the related health problem, their belief that the problem is severe and their perception that the benefits of preventive action outweigh the costs (Roden, 2004). Similarly, Kim, Ahn and No (2012) used the health belief model in a study and found that the best predictors of health-related behaviours are perceived barriers and perceived susceptibility to illness.

On the contrary, Carpenter (2010) conducted a meta-analytic review of 19 studies that included measures of the health belief model to predict compliance and concluded that the best predictors of compliance are the costs and benefits and the perceived severity. This, therefore, showed that each of the components in the health belief model becomes significant in the context in which it is being used such that in certain instances a component will be significant but in other health-related instances. As a result of these limitations, some authors have criticized the model for being static and also that it is the symptoms rather than the individual factors as suggested by the health belief model (Bissell, May & Noyce, 2004).

One main strength of the HBM is the common-sense operationalization it uses including key beliefs related to decisions about health behaviour (Conner, 2010). Some weaknesses of the HBM are that the model does not account for a person's attitudes, beliefs, or other individual determinants that dictate a person's acceptance of health behaviour. It does not take into account behaviours that are habitual and thus may inform the decision-making process to accept a recommended action (e.g., smoking). It does not take into account behaviours that are performed for non-health-related reasons such as social acceptability. It does not account for environmental or economic factors that may prohibit or promote the recommended action. It assumes that everyone has access to equal amounts of information on the illness or disease. It assumes that cues to action are widely prevalent in encouraging people to act and that "health" actions are the main goals in the decision-making process (Conner, 2010).

Notably, modifying variables such as the demographic and psychosocial variables can affect the perceptions of health-related behaviour indirectly by affecting perceived susceptibility, benefits and barriers. Cues to action are the factors or triggers for accepting a health-related behaviour (Chou & Wister, 2005). Self-efficacy refers to an individual's confidence in her ability to carry out health-related behaviour (Tarkang & Zotor, 2015). The HBM is based on the assumption that a person will take a health-related action or perform a health-related behaviour if the person feels that a negative health condition can be avoided and has a positive expectation that they will avoid a negative health condition by taking a recommended action; and believes that they can successfully take a recommended action (Conner, 2010).

Application of the theory in the study

The theory underpins this study as the health behaviour of a population (HIV patients) can be explained using the health belief model. In this model, the person's (HIV patients') reactions to symptoms of illness are modified by various factors, including motivation, the experienced threat of illness and coping factors. The model includes an interesting concept, "cue to action", which means that different cues, information or recommendations may act as the final stimulus to the behaviour carried out by the HIV patient; for example, an encounter with the physician may influence their belief to manage the disease.

The Health Belief Model (HBM) was adopted for this study because it offers a comprehensive framework for understanding the health behaviors of individuals living with HIV/AIDS, particularly within the Ghanaian context. This model allows for the exploration of how patients' perceptions of susceptibility and severity of their condition influence their engagement in health-promoting behaviors. Additionally, the HBM's emphasis on perceived barriers and benefits is crucial in understanding the factors that motivate or hinder HIV patients from adopting behaviors that improve their quality of life.

Given that HIV/AIDS management requires consistent adherence to treatment and lifestyle adjustments, the model's focus on self-efficacy and cues to action provides insights into how patients can be supported to maintain these behaviors. For instance, cues such as interactions with healthcare providers may play a critical role in encouraging patients to follow their treatment plans. The model's applicability in predicting health behaviors across various contexts (Carpenter, 2010; Kim et al., 2012) further supports its relevance to this study, as it allows for the examination of both individual and contextual factors that affect health outcomes in HIV/AIDS patients. Therefore, the HBM is a valuable tool for guiding interventions aimed at improving the quality of life of individuals living with HIV/AIDS in Ghana.

Theory of Planned Behaviour (TPB) (Ajzen, 1985)

The Theory of Planned Behaviour (TPB) was developed from the Theory of Reasoned Action by Martin Fishbein and Icek Ajzen (Ajzen & Fishbein, 1988). The theory of planned behaviour proposed by Ajzen in 1988 is thus an extension of the theory of reasoned action. This theory represents the individual’s perception of how easy or difficult it is to perform a particular behaviour. It states that if the behaviour is easy to perform, it is rated high in perceived behavioural control, but a difficult one is rated low in perceived behavioural control. In this theory, therefore, a person with a high perceived behavioural control is more likely to form the intention to perform that behaviour despite apparent obstacles and setbacks. According to Ajzen (1985), the theory helps to predict and understand an individual's intention to engage in a behaviour. The theory states that behavioural achievement depends on motivation (intention) and ability (behavioural control).

The theory has six main constructs; attitudes, behavioural intention, subjective norms, social norms, perceived power and perceived behavioural control (Kashif, Zarkada & Ramayah, 2018). Attitude is an individual's negative or positive belief about performing health-related behaviour. Behavioural intention refers to the motivational factors that influence the performance of a behaviour. If the intention to perform the behaviour is strong, the more likely it will be performed. Subjective norm is the individual's belief about people's (friends, family members) approval or disapproval of the behaviour. Social norms refer to the behaviour of a group in the cultural context. Perceived power refers to the perceived factors that facilitate or impede the performance of the behaviour. Perceived behavioural control is the person's perception of the difficulty in performing the behaviour of interest (Kiriakidis, 2017).

The TPB is based on the assumption that human beings are rational and make systematic use of information available to them. Also, people consider the implications of their actions before they decide to engage or not engage in certain behaviours (Conner, 2010). The weaknesses of the TPB are that it assumes the person has acquired the opportunities and resources to be successful in performing the desired behaviour, regardless of the intention. It does not account for other variables that factor into behavioural intention and motivation, such as fear, threat, mood, or experience (Conner, 2010). While it does consider normative influences, it still does not take into account environmental or economic factors that may influence a person's intention to perform a behaviour. It assumes that behaviour is the result of a linear decision-making process, and does not consider that it can change over time. While the added construct of perceived behavioural control was an important addition to the theory, it does not say anything about actual control over behaviour. The time frame between "intent" and "behavioural action" is not addressed by the theory.

The theory of planned behaviour (TPB) is concerned with the factors that influence a person's decisions about his or her behaviour. According to the theory of planned behaviour, proper decisions about one's behaviours are based on information and beliefs about their actions, the outcome they expect from their actions, and the value they place on these outcomes. The most important component of this theory, however, is that an individual's intentions form the best predictors of actual behaviour. The intention to perform certain actions reflects the person's attitudes about the behaviour and about subjective norms of that behaviour. The attitude toward exercise, for instance, reflects the individual's beliefs about the benefits and consequences of positive and negative evaluations of engaging or not engaging in regular exercise.

Yang-Wallentin, Schmidt Davidov and Bamberg (2004) explain that the role of perceived behavioural control is 'non-psychological' in that it is not the perception of control that causes the failure to act by intentions but rather the lack of actual control over the behaviour. Ajzen (1985) notes that behavioural control affects the relationship existing between intentions and behaviour in two different ways: (1) the degree of belief in one's ability to perform a particular behaviour (perceived behavioural control) affects intentions regarding that behaviour and (2) the degree of actual behavioural control affects one's ability to behave as intended. Nsafoah (2012) also concluded that "individuals have the greatest commitment to exercise when they hold favourable beliefs about exercise and believe that they can successfully perform the behaviour" (p. 45), a concept called perceived competence.

Application of the theory in the study

The theory underpins this study since the implications for the theory of planned behaviour through higher perceived behavioural control include establishing realistic goals for the HIV patient to enhance their quality of life. This theory can also be related to the impact of other life-related pressures on HIV patients' decision-making in that, some of these patients might lack actual control of their behaviours because of the felt pressures/stigmatization on them by society. Also, some patients may encourage themselves to believe in managing the disease and this will affect their intentions to adopt certain practices or behaviours to manage the disease.

The Theory of Planned Behavior (TPB) was adopted for this study due to its comprehensive framework for understanding and predicting individuals' intentions and behaviors, particularly in the context of managing chronic health conditions such as HIV/AIDS. TPB is well-suited for this study as it addresses the multifaceted nature of behavior by incorporating attitudes, subjective norms, and perceived behavioral control, which are crucial for understanding health-related behaviors.

The theory’s focus on perceived behavioral control is particularly relevant, as it acknowledges that individuals' control over their behaviors may be influenced by both their beliefs and actual control (Ajzen, 1985). This is essential in the context of HIV/AIDS, where patients may face significant external pressures and stigmatization, affecting their ability to manage their health effectively (Yang-Wallentin et al., 2004). By incorporating perceived behavioural control, the TPB helps to identify barriers and facilitators that influence patients' intentions and actions towards managing their condition.

Furthermore, TPB emphasizes that individuals' intentions are the best predictors of their actual behavior (Ajzen & Fishbein, 1988). This aligns with the study’s objective to explore how spiritual and social support can shape the quality of life for HIV patients by influencing their intentions and perceived control over their health behaviors (Kashif et al., 2018). Thus, TPB provides a robust theoretical foundation for understanding the dynamics of behavior change and intervention in the context of chronic illness management.

The Biopsychosocial-Spiritual model (George Engel, 1977)

The Biopsychosocial model was developed at the University of Rochester by George Engel and John Romano in 1977 (Dowling, 2005). The Biopsychosocial model is a broad view that attributes disease outcome to the intricate, variable interaction of biological factors (genetic, biochemical), psychological factors (mood, personality, behaviour), and social factors (cultural, familial, socioeconomic, medical) (Santrock, 2007). The Biopsychosocial model counters the biomedical model, which attributes disease to roughly only biological factors, such as viruses, genes, or somatic abnormalities (Engel, 1977). While traditional biomedical models of clinical medicine focus on pathophysiology and other biological approaches to disease, the Biopsychosocial approach emphasizes the importance of understanding human health and illness in their fullest contexts. The Biopsychosocial model applies to disciplines ranging from medicine to psychology to sociology; its novelty, acceptance, and prevalence vary across disciplines and cultures (Berghmans, 2018).

The biopsychosocial model is a general model or approach stating that biological, psychological (which entails thoughts, emotions, and behaviours), and social (socio-economical, socio-environmental, and cultural) factors, all play a significant role in human functioning in the context of disease or illness. It posits that health is best understood in terms of a combination of biological, psychological, and social factors rather than purely in biological terms (Santrock, 2007). This is in contrast to the biomedical model of medicine that suggests every disease process can be explained in terms of an underlying deviation from the normal function such as a virus, gene or developmental abnormality, or injury (Santrock, 2007).

Some authors see the Biopsychosocial model in terms of causation (Santrock, 2007). Its biological component seeks to understand how the cause of the illness stems from the functioning of the individual’s body and biological processes. The psychological component looks for potential psychological causes for a health problem such as lack of self-control, emotional turmoil, and negative thinking among other psychological factors. Its social part investigates how different social factors such as socioeconomic status, culture, technology, and religion can influence health (Santrock, 2007). However, a closer reading of Engel’s seminal paper in the American Journal of Psychiatry in 1980 embeds the model far more closely into patient care. It is not just about causation but also about how any clinical condition (medical, surgical, or psychiatric) can be seen narrowly as just biological or more widely as a condition with psychological and social components, which will impinge on a patient's understanding of her condition and will affect the clinical course of that condition (Engel, 1977). The Biopsychosocial model also focuses on the interaction of biological, psychological and social factors and how they can influence an individual's health and well-being.

Currently, the Biopsychosocial model has been expanded to include the spiritual dimension as well; many authorities have supported this. One such authority is Katerndahl (2008), whose study has shown the relevance of spiritual symptoms and their interactions for understanding health outcomes. Saad, De Medeiros and Mosini (2017) justify the expansion of the model to a Biopsychosocial-spiritual one by remembering that genuinely holistic health care must address the totality of the patient's relational existence. According to him, this will contribute to a more comprehensive model of care and research that takes account of patients in their fullest wholeness (Saad et al., 2017). Also, the World Health Organization (WHO) highlights the importance of the spiritual dimension for clinical purposes (Saad et al., 2017). Arguably, the transcendent and sacred questionings of the spiritual dimension cannot be exhausted on mental and social grounds, notwithstanding the interfaces between the concepts (Saad et al., 2017).

In terms of disease causation, the biological component of the biopsychosocial model seeks to understand how the cause of the illness stems from the functioning of the individual's body. The psychological component looks for potential psychological causes of a health problem such as lack of self-control, emotional turmoil, and negative thinking. The social part investigates how different social factors such as socioeconomic status, culture, poverty, technology, and religion can influence health (Santrock, 2007). The biopsychosocial model is not just about causation but about how any clinical condition (medical, surgical or psychiatric) can either be seen narrowly as just biological or more widely as a condition with psychological and social components, which will impinge on a patient's understanding of her condition and will affect the clinical course of that condition (Halligan & Aylward, 2006).

The biopsychosocial model implies that treatment of disease processes, such as HIV/AIDS, requires that health care address biological, psychological and social influences upon a patient's functioning. In a philosophical sense, the biopsychosocial model states that the workings of the body can affect the mind, and the workings of the mind can affect the body (Halligan & Aylward, 2006). This means both a direct interaction between mind and body as well as indirect effects through intermediate factors (DiMatteo, Haskard & Williams, 2007).

The biopsychosocial model presumes that it is important to handle the three together as a growing body of empirical literature suggests that patient perceptions of health and threat of disease, as well as barriers in a patient's social or cultural environment, appear to influence the likelihood that a patient will engage in health-promoting or treatment behaviours, such as medication taking, proper diet or nutrition, and engaging in physical activity (DiMatteo et al., 2007).

Application of the theory in the study

This theory is applicable in this study because the theory is holistic and can enhance the quality of life of HIV patients. It implies that the management of diseases, like HIV, requires the healthcare team to address biological, psychological, and social factors as well as spiritual influences on a patient's functioning and well-being. Also, psychosocial factors can cause a biological effect by predisposing the patient to risk factors. An example is that HIV as a disease may not only cause clinical depression but a depressed person may be more likely to also have other ailments and this will reduce their quality of life. Perhaps, it is that increased risk-taking that leads to an increased likelihood of disease. Most diseases in Biopsychosocial discussion are behaviourally-moderated illnesses, with known high-risk factors, or so-called "Biopsychosocial illnesses or disorders".

The Biopsychosocial model was adopted for this study due to its comprehensive approach to understanding and improving the quality of life for individuals living with HIV/AIDS. This model, introduced by Engel (1977), emphasises the interconnectedness of biological, psychological, and social factors in shaping health outcomes. This is particularly relevant for HIV/AIDS patients, whose health is profoundly influenced by these dimensions.

Firstly, the Biopsychosocial model provides a holistic framework for addressing the multifaceted nature of HIV/AIDS, recognizing that the impact of the disease extends beyond its biological manifestations to include psychological and social dimensions (Santrock, 2007). Psychological factors, such as depression and anxiety, are common among HIV patients and can significantly affect their overall health (DiMatteo et al., 2007). Social determinants, including stigma and socioeconomic status, also play a crucial role in shaping health behaviors and access to care (Saad et al., 2017).

Furthermore, the model's inclusion of a spiritual dimension, as supported by Saad et al. (2017), aligns with the need for a more comprehensive approach to patient care. By addressing biological, psychological, social, and spiritual factors, the model offers a robust framework for enhancing patient well-being and managing HIV/AIDS more effectively (Katerndahl, 2008). This integrative approach is essential for understanding and addressing the complex challenges faced by individuals living with HIV/AIDS.

Conceptual Review

The conceptual review provides information on the various concepts under study. It considers definitional issues and explanations, characteristics, causes and risk factors, effects, importance and management of the HIV condition where applicable, and also explains other related variables and concepts in this study.

The Concept of HIV / AIDS

According to Lorenz, Latzke and Salzen (2021), 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 to 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. Hays and Hays (2009) posit that the origin of HIV 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 accepted explanation of the origin of HIV is the one which postulates that HIV originated from wild monkeys in Central Africa to the human species. This preposition to the genesis of HIV is known as the "Hunter Theory" or the "Bush meat Theory" (Ansah, 2017). 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.

According to Bolla, Rao, Dudala and Ravikumar (2013), AIDS is an acronym for Acquired Immune Deficiency Syndrome. AIDS is a group of diseases acquired as a result of a weakened defence (immune) system. Acquired means the disease is transmitted from person to person; immune is the body's system of defence or protection against diseases; deficiency means a lack of or not working to the appropriate degree, and a syndrome is a group of signs and symptoms. AIDS is the advanced stage of HIV infection. That is, it is when the individual has overwhelming symptoms and signs and meets the WHO clinical case definition for AIDS, which is two major and one minor symptom for adults and two major and two minor symptoms for children (Bolla et al., 2013).

The human immunodeficiency virus (HIV) causes AIDS in humans. Researchers have identified two types of HIV: HIV-1 and HIV-2. HIV-1 and HIV-2 are transmitted in the same way and are associated with similar opportunistic infections, though they differ in the efficiency of transmission and rates of disease progression (Vidya, Vijayan, Karthigeyan, Tripathi & Hanna, 2017). HIV-1 accounts for the majority of infections in the world; there are more than 10 genetic subtypes. HIV-2, found primarily in West Africa, appears to be less easily transmitted and progresses more slowly to AIDS than HIV-1. A person can be infected with both types of HIV simultaneously. Laar and DeBruin (2017) reported that in Africa, 98% of HIV prevalence cases are of type I, 0.7% are of type II and 1.3% are of both type I and II.

HIV presents health workers and counsellors in particular, with unique challenges. While many health workers have worked with life-threatening illnesses, before the HIV pandemic few had to meet the challenge of working in an area of such sociocultural sensitivity (Mugisha, Kinyanda, Osafo, Nalukenge & Knizek, 2020). In Sub-Saharan Africa, many HIV clients come from marginalized groups with a range of psychosocial issues including histories of drug or alcohol use, sex work, and gender and sexual identity issues (Scorgie et al., 2012). Besides the varied backgrounds of clients who seek support, HIV counsellors and mental health service providers themselves come from diverse professional backgrounds and are often challenged by a complex array of HIV-related psychiatric and psychosocial conditions (Asante, 2013). Health officials are expected to reduce transmission, facilitate knowledge of HIV status, provide psychosocial support, and address treatment adherence in the context of a highly stigmatised disease. HIV health officials and counsellors in Sub-Saharan Africa must meet these objectives with large numbers of clients, often with limited HIV counselling training, personnel support, and clinical supervision (Aizire, Fowler & Coovadia, 2013).

Transmission of HIV

According to Saad, Subramaniam and Tan (2013), HIV is found in blood, semen, vaginal fluids, and breast milk. It can be transmitted in any of these four ways:

1. Unprotected sexual intercourse with an HIV-infected person. 80% of HIV infections are transmitted through this mode.
2. An HIV-infected mother to her child (referred to as vertical transmission). This mainly occurs during pregnancy, labour, delivery and after birth through breast milk.
3. Through infected blood and blood products (transferred via blood transfusions and organ transplants).
4. Through the sharing of needles, syringes, and other injecting equipment (including tattooing equipment).

Diagnosing HIV

The diagnosis of an HIV infection is most often based on the detection of antibodies to the virus (Wu & Zaman, 2012). An antibody test is rarely 100% sensitive (correctly able to categorise an infected person as positive) and 100% specific (correctly able to categorize a non-infected person as negative). Therefore, the Joint United Nations Programme on HIV and AIDS, the World Health Organization, and the US Centre for Disease Control and Prevention jointly recommend that all positive test results be confirmed by retesting, preferably using a different testing method. All testing done at HIV Counselling and Testing (HCT) centres should be subject to external quality assurance. Usually, 5%-10% of all samples–venous samples or samples collected through a filter-paper method (commonly referred to as dried bloodspot specimens) should be sent out for external quality assurance testing.

According to Cohen, Gay, Busch and Hecht (2010), the detection of acute and incident HIV infections is critical to both prevention and treatment strategies. However, after 30 years of the HIV pandemic, laboratory tools are imperfect, and we can identify and care for only a very limited number of persons with recent infections. Cohen et al. (2010) added that new diagnostic assays and new surveillance strategies should prove useful.

Nature of HIV and AIDS

The Human Immunodeficiency Virus (HIV) first enters the bloodstream of the person and attacks the white blood cells so that the person's ability to fight minor diseases is weakened. At this point, the virus breaks the person's immune system completely such that many diseases such as tuberculosis, fever, diarrhoea and many others attack them. Gradually, the person loses their ability to fight diseases and dies. A person infected with HIV may have it between 12 and 15 years before it becomes manifest. However, when it develops into AIDS, it will take about 3-24 months for the person to die (Kodym et al., 2015).

There are two types of HIV, namely HIV-1 and HIV-2. Both have the same modes of transmission and cause the same danger: the destruction of the human immune system HIV-1 is the most common type of HIV and is the one most commonly found in the West African regions. Research has shown that HIV-1 is the more virulent of the two, meaning it can replicate itself and destroy the immune system more rapidly than HIV-2. Both HIV-1 and HIV-2 have been identified in Ghana (Santoro & Perno, 2013).

According to Muniruzzaman (2017), HIV/AIDS affects the poor and the rich, males and females, 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. 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 bloodstream consequentially destroys certain white blood cells in the body that protect the body against infections (Moss, 2013). Many 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. 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 the form of loss of weight, persistent diarrhoea, fever and fatigue. The signs and symptoms are the manifestations of the signs and symptoms of opportunistic diseases.

The course on 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 (Deeks et al., 2015). 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 (Melhuish & Lewthwaite, 2018). 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 (Melhuish & Lewthwaite). For those treated with antiretroviral therapy, the average survival time is estimated to be more than 5 years even after the diagnosis of AIDS (Melhuish & Lewthwaite, 2018). 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. Once infected, an initial burst of viremia occurs with a subsequent drop in CD4+ cell counts (Streeck & Nixon, 2010). Viral-like symptoms of fatigue, rash, fevers, night sweats, and weight loss (known as constitutional symptoms) 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 (Cohen et al., 2013). 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.

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 a 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 (Morris, 2020). The most common symptom during this stage is swollen lymph nodes without pain 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 (Matthews, Madge, Singh & Theobald, 2016). 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 (Bhatoa, Sharma & Kumar, 2013). 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 the 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 (Bhatoa et al., 2013). The most common life-threatening opportunistic infection for people with AIDS during this stage is a fungus affecting the respiratory system, which is evident in a dry cough, fever, night sweats, and increasing shortness of breath (Bhatoa et al., 2013). Other problematic opportunistic infections include neurological deficits or seizures, severe headaches, diarrhoea and abdominal pain, tuberculosis, and cancer. Also observed in the disease are psychiatric symptoms of depression, hallucinations, delusions, and paranoia.

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 their clinical condition improves.

Risk Factors

HIV is transmitted through infected human body fluids, including blood, semen, vaginal secretions, and breast milk (Ouattara, Anderson & Doncel, 2018). 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. Needle sharing, trading sex for money or drugs, and having multiple sex partners are known to increase the risk of HIV transmission. A strong correlation has been reported between addiction and the risk of sexual transmission of HIV (Maracy, Mostafaei, Moghoofei & Mansourian, 2017). Non-injecting drug use (e.g., crack cocaine) can increase the chance of the transmission of HIV by inducing risky sexual behaviours. 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 (Lee, 2012).

Types of HIV Tests

There are two main types of HIV tests: antibody tests (e.g., enzyme-linked immunosorbent assay (ELISA or EIA), simple/rapid tests, saliva assays, urine assays, and the Western blot) and virological tests (e.g., HIV antigen test, polymerase chain reaction test, and viral culture).

Antibody Tests

Klasse (2016) states that HIV antibody tests detect antibodies against HIV; they do not directly detect the virus itself. Once HIV enters the body, it infects white blood cells known as T4-lymphocytes or CD4 cells. The infected person's immune system responds by producing antibodies to fight the new HIV infection. The presence of antibodies is used to determine the presence of HIV infection.

Virological Tests

According to Klasse (2016), the HIV antibody tests discussed above are the most commonly used in HIV testing and counselling. Under special circumstances (e.g., in a recently infected individual, during the window period, or in the case of a child born to an HIV-positive mother), more direct diagnostic methods may be used. Unlike antibody tests, virological tests determine HIV infection by directly detecting the virus itself. There are three types of virological tests:

1. Viral antigen detection tests (also known as p24 antigen tests).
2. Nucleic acid-based tests (specialised tests that look for genetic information on HIV through polymerase chain reaction [PCR]).

3. Virus culture, which isolates the virus. Virological tests are rarely used to diagnose HIV in developing countries because they require sophisticated laboratories and are expensive. They may be used to monitor the progress of infection or response to therapy (e.g., by measuring viral load).

Global Effects of HIV and AIDS

The global HIV and AIDS situation has undermined socioeconomic development at all levels of society-national, community, family and individual (WHO, 2016). The UNAIDS Report of December 2011 estimated the global figure of People Living with HIV and AIDS (PLWA) as 33.2 million, out of which more than 2.1 million lost their lives. Over twenty years after the first clinical evidence of Acquired Immunodeficiency Syndrome (AIDS) was reported, it has become the most devastating disease humanity has ever faced and is now the leading cause of death in sub-Saharan Africa. Worldwide, it is the fourth biggest killer (UNAIDS, 2011).

Africa is home to over 70% of adults and 80% of children living with HIV and AIDS in the world (WHO, 2016). HIV and AIDS have further slowed down economic growth in diverse ways by destroying human capital through increased mortality rates of the skilled population and labour force. A smaller labour force is left behind with reduced knowledge and work experience. Workers take time off to care for sick family members. Employees who are victims of HIV take sick leave resulting in a loss of productive time. Additionally, HIV and AIDS weaken the taxable population and reduce resources available for development. A small tax base would devastate an economy with increased pressure to treat the sick, train people to replace sick workers and pay and care for AIDS orphans.

The United Nations General Assembly observed that Africa is worst hit by the HIV and AIDS epidemic, where HIV and AIDS are considered a state of emergency, which threatens development, social cohesion, political stability, food security and life expectancy. It imposes a devastating economic burden and the dramatic situation on the continent needs urgent and exceptional national, regional and international action. The table below shows global statistics on HIV.

Table 1: Global HIV data (2000-2021)

	2000	2005	2010	2020	2021
People living with HIV	26.0 million [22.9 million–29.7 million]	28.5 million [25.1 million–32.5 million]	30.8 million [27.2 million–35.2 million]	37.8 million [33.3 million–43.1 million]	38.4 million [33.9 million–43.8 million]
New HIV infections (total)	2.9 million [2.2 million–3.9 million]	2.5 million [1.9million–3.3 million]	2.2 million [1.7 million–2.9 million]	1.5 million [1.2 million–2.0 million]	1.5 million [1.1 million–2.2 million]
New HIV infections (aged 15+ years)	2.4 million [1.8 million–3.2 million]	2.0 million [1. 5 million– 2. 7 million]	1.9 million [1.4 million–2.5 million]	1.4 million [1.0 million–1.8 million]	1.3 million [990 000– 1.8 million]
New HIV infections (aged 0–14 years)	520,000 [350 000– 770 000]	470 000 [320 000–700 000]	320 000 [220 000– 480 000]	170 000 [110 000– 250 000]	160 000 [110 000– 230 000]
AIDS-related deaths	1.7 million [1.3 million–	2.0 million [1.6 million– 2.6 million]	1.4 million [1.1 million–	690 000 [540 000– 900 000]	650 000 [510 000– 860 000]

	2.2 million		1.8 million]		
People accessing antiretroviral therapy	560,000	2.0 million	7.8 million	27.2 million	28.7 million
HIV resources are available*	US$ 5.1 billion	US$ 9.3 billion	US$ 16.7 billion	US$ 21.6 billion	US$ 21.4 billion

Clinical Management of HIV

Individuals who are diagnosed with HIV should be referred to a specialist HIV physician for ongoing medical follow-up (Dlamini-Simelane & Moyer, 2017). This follow-up may include regular immune system monitoring, antiretroviral therapy (ART), prophylaxis of OIs, the management of HIV-related neurological and psychiatric conditions, the management of common co-infections, including tuberculosis and hepatitis B and C, clinical examination, family planning, and general health care (Dlamini-Simelane & Moyer).

Immune System Monitoring Tests

Immune system monitoring tests are performed as part of HIV care and treatment and may include viral load and CD4 tests. The CD4 cell count is an indicator of the level of immune function at any given time, while the viral load is a measurement of the level of circulating virus in the blood. As the virus reproduces, it destroys CD4 cells and reduces the CD4 count (Dlamini-Simelane & Moyer, 2017). In general, the higher the viral load, the more quickly the CD4 cells are destroyed. Like CD4 counts, viral load measurement is important for disease staging and prognosis. Persons with a high viral load are more likely to progress rapidly to AIDS than persons with a lower viral load. Both tests are useful in guiding the use of ART, staging HIV disease, and determining a patient's prognosis.

Antiretroviral Therapy

According to Cohen et al. (2013), antiretroviral Therapy (ART) refers to medication that stops or inhibits the replication of HIV. Antiretroviral treatment in general is aimed at prolonging and improving the quality of life by maintaining the maximal suppression of HIV replication for as long as possible. Four types of ART drugs are taken in combination to suppress different stages of the life cycle of the virus. Huge reductions have been seen in rates of death and suffering when use is made of a potent antiretroviral treatment, particularly in the early stages of the disease. Furthermore, expanded access to ART can also reduce HIV transmission at the population level, impact orphanhood and preserve families. In 2011, an estimated 34 million people were living with HIV. WHO and UNAIDS estimated that at least 15 million people needed antiretroviral therapy in 2011. By the end of 2011, over 8 million people had access to antiretroviral therapy in low- and middle-income countries. WHO is providing countries with ongoing guidance, tools and support in delivering and scaling up antiretroviral therapy within a public health approach (Haghighat, Steinert & Cluver, 2019).

HIV in Sub-Saharan Africa

Sub-Saharan Africa has been considered the hub of the epidemic as it remains the most badly affected region in the world (WHO, 2016). In 2014, it was reported that 5,600 people were infected with HIV daily, with 66% of the newly infected people living in Sub-Saharan Africa (Glesby & Myerson, 2019). Owusu, Adu-Gyamfi and Ahmed (2019) 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, 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. 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.

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 condom use, substantial efforts in reducing mother-to-child transmission, encouraging voluntary 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 have affected the effective prevention of HIV in the region (Adedimeji, Abboud, Merdekios & Shiferaw, 2012). 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 a need for an aggressive biopsychosocial/spiritual approach to the prevention, education and treatment of HIV/AIDS in the region.

The case of the HIV/AIDS situation in Ghana

In Ghana, HIV/AIDS was first identified in 1986 with 42 cases. The major mode of HIV transmission in Ghana is heterosexual contact and mother-to-child transmission (Opoku, 2019). These are also the major means of HIV transmission in most African countries due to cultural restrictions on homosexuality and the 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 asserts that HIV awareness is almost universal. The majority of Ghanaian adults have heard about HIV, the mode of transmission and effective practices for 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 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 claiming 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 (WHO, 2016). According to the WHO (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 represent 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).

The Quality-of-Life Concept

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; valorisation of the satisfaction of the client; and the need for humanization in health programming and care. According to Ranganathan and Umadevi (2019), 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 such as Acquired Immuno-deficiency Syndrome (AIDS). This is because, 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 to 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.

Considering the complexity in the conceptualization of QoL, WHO (2016) 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 about 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 WHO-QoL-HIV these being: physical; psychological; level of independence; social relationships; environment; spirituality, religion and personal beliefs (SRPB).

Quality of life also describes an individual’s perception of the position in life in the context of the culture and value systems in which they live about their goals, expectations, values and concerns (Megari, 2013). Again, it involves incorporating physical health, psychological state, level of independence, social relations, personal beliefs and their relationship to salient features of the environment (Megari, 2013). Other views situate quality of life in a subjective, objective and existential and integrative context (Liégeois, 2014).

According to Liégeois (2014), 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. Satisfaction with life and being happy are a dimension of quality of life that shows at the individual level. On the other hand, an objective view of the quality of life suggests that the view people have about the person’s life is what matters in the understanding of the 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 society (values and norms). One’s ability to adapt to these values and norms in society is what is used to evaluate the quality of life of the person. An example is that 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 some 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 a 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 (Selin & Davey, 2012). For example, human beings need food for growth and 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 the quality of life (Kelley-Gillespie, 2009). It is a spectrum of perspectives on quality of life. It is a spectrum of a subjective-existential-objective view of the 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 persons living with HIV/AIDS (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 role 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 (Zhang et al., 2022).

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 by Santos, França Junior and Lopes (2007) 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 the better (physical and psychological) quality of life than other patients but lower quality in social relationships domain. A similar study in South India by Subramanian, Gupte, Dorairaj, Periannan and Mathai (2009) also showed that patients had the worst QOL in the social domain, indicating that the patient's social contacts and sexual activity were affected markedly to a great extent. Fatiregun, Mofolorunsho and Osagbemi (2009) in their study of PLWHA in Kogi State, Nigeria, suggested that stigma and discrimination, as well as poor living conditions, in the PLWHA physical environment, were the cause of lower QOL in the environment and social relationships domain. Several authors have investigated the determinants of the quality of life of PLWHA.

Rasoolinajad et al. (2018) in a study on HIV patients identified gender, mental status, CD4 cell count and stage of the disease to be important factors associated with the QOL of patients. It was also concluded that education, income, occupation, family support and clinical categories were significantly linked to patients' QOL. Notably, 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 domains.

Quality of life has also been characterized by Veenhoven (2012) as subjective well-being related to how happy or satisfied someone is with life as a whole. Over the years the concept of subjective well-being has developed considerably as a general area of scientific interest. Subjective well-being does not represent a single construct; it includes pleasant and unpleasant effects, global judgments of life satisfaction, and satisfaction with individual domains of life. The number of life domains varies among authors, depending on the desired level of generality. At a broad level of abstraction, the domains have been characterized as health and functioning, psychological and spiritual, and family, social, and economic (Veenhoven, 2012). This characterization is consistent with prevailing views of the domains of quality of life in literature, although the specific terminology varies somewhat among authors. Many theories and conceptual models have been proposed to explain the components of subjective well-being.

Ferrans, Zerwic, Wilbur and Larson (2005) published one of the earliest and most influential reports to characterize the determinants of life satisfaction. They described the relationship between the characteristics of the individual and environment and the level of life satisfaction experienced. In their model, life satisfaction is determined by the person's evaluation of attributes of various domains of life. This evaluation is dependent on the person's perception of attributes, as well as internal standards by which those perceptions are judged. Internal standards include personal values, expectation levels, aspiration levels, personal needs, and comparisons with others. Individual perception is influenced by personal characteristics, such as demographic characteristics, general optimism or pessimism, as well as other attributes of personality.

In concordance with Ferrans et al. (2005), Veenhoven (2012) emphasized how patients' values and preferences affect the overall quality of life. Because of differences in values, an impairment that makes life not worth living for one person might be considered only a bother for another. For this reason, the importance of values should be part of an assessment of satisfaction with life. Life satisfaction can be measured through a single global question, asking how satisfied the person is with life in general, or through a series of questions about satisfaction with various aspects of life. If scores on a series of questions are simply summed, then each aspect of life is given equal value. However, some instruments include a weighting system to allow for differences in importance for each aspect of life, and thus would indicate differences in the values of respondents. Two examples are the Quality-of-Life Inventory by Frisch and the Quality-of-Life Index by Ferrans and Powers.

The Concept of 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 (Ashida & Heaney, 2008). The structural component of social support is often defined by social integration, social isolation, or social network characteristics. Functional social support includes informational, instrumental, and emotional support, as well as social conflict. The roots of the concept of social support are found in nineteenth-century sociologists such as Durkheim, who established the link between diminishing social ties and an increase in suicide. As a concept, it has evolved starting with the term ‘‘social ties’’ as used by Durkheim. Yadav (2010) describes a social system as others who;

1. help people to mobilize their psychological resources 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 to help them to deal with particularly stressful situations that they are exposed to).

Social support is a multi-faceted concept that has been difficult to conceptualize, define and measure. According to Snyder (2017), social support can also be described as the interpersonal relations that offer information, emotional relief, and material and self-reliance to an individual. Hochschild (2015) explains it also by saying, “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 daily but also extends to care and support offered by specialized psychological and social services. 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.

As evident above, 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.

Categorisation of Social Support

Social support serves many different functions (Chukwuorji et al., 2020). These include:

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 (McCarthy et al., 2021). 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 (McCarthy et al., 2021).

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 period could share their experiences, as well as some of the side effects of the medications with newly diagnosed people (Khamarko et al., 2013). Information gathered on the condition about what to do and what to avoid from magazines, books, or other resource materials could be shared with a newly diagnosed person by a 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” (Khamarko et al., 2013).

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 (Schultz et al., 2022). 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 (Schultz et al., 2022). They could also provide her regularly with money to pay for her medical expenses. Assistance associated with such activities is primarily provided by the family, friends and significant others, although sometimes, others may help (Schultz et al., 2022).

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 (Leung, 2011). 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. Tangible support, 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 (Coulson & Greenwood, 2012). 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 (Leung).

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 against 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 (Coulson & Greenwood, 2012). In another research too, the perception of social support availability has been more strongly and consistently related to health outcomes than the actual support received (Gable, Gosnell, Maisel & Strachman, 2012). 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 (Coulson & Greenwood, 2012).

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 (Coulson & Greenwood, 2012). Social conflict may also be related to poorer health outcomes because individuals may participate in negative health behaviours to cope with the stress associated with conflict (Coulson & Greenwood, 2012).

Structural Social Support

A structural measure of social support, social integration, describes the way an individual is situated or integrated into a social network (Leung, 2011). Social integration has been associated with lower mortality rates, higher heart attack survival rates, and lower susceptibility to infections (Furman et al., 2019). 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 (Coulson & Greenwood, 2012). 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 (Coulson & Greenwood). Positive psychological responses may result in a lower likelihood of psychological despair, reductions in neuroendocrine responses, and improvements in immune functioning.

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 (Coulson & Greenwood, 2012). Social isolation may cause stress, which can result in poorer effects, 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 (Coulson & Greenwood, 2012).

Importance of Social Support

Social support has several 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:

1. A person's friends and social contacts may encourage him or her to change unhealthy lifestyle habits such as excessive alcohol consumption, smoking, etc.
2. Friends and social contacts may urge a person to visit a doctor when the person feels depressed, which can prevent problems from escalating.
3. These connections can help a person with mental illness "weather troubled times". This explains why 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 (Aknin et al., 2011; Sosnowy, Silverman, Shattuck & Garfield, 2019). It has been recommended that 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. 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 how 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 (Barth, Schneider & Von Känel, 2010).

The Links between Social Support and Health

Two general viewpoints have been offered on how social support works. The first, known as the Buffering Model, suggests that social support serves as a source of protection (that is, a buffer) against the harmful effects of stress (Graham & Barnow, 2013). 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, 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 (Graham & Barnow, 2013).

Social Support is linked to health in so many ways (Feeney & Collins, 2015). 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, research has demonstrated that social support can reduce morbidity and mortality directly as a result of effects on the neuroendocrine, immunologic, and cardiovascular systems (Park et al., 2016). 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 and, therefore, may have a direct influence on the person. The elements of social support may include family, friends support and support from significant others. These domains play a significant role in the quality of life of PLWHA. Quality of life is manifested in the physical, psychological, and social relationships and environment of the person.

Research work has shed some light on the relationship between social support and health outcomes of PLWHA. A study conducted by Park et al. (2016) in a 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 Subramanian, Mohan, Nandi and Rajeshwari (2021) 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 the 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 the quality of life of PLWHA. Similarly, a study by Yadav (2010) revealed a positive relationship between perceived social support and the quality of life of PLWHA. However, the available research does not highlight the effects of perceived social support on the quality of life of people living with HIV/AIDS.

Concerning demographic variables, younger patients are likely to have a higher quality of life than older patients, according to Abrefa-Gyan and Okundaye (2016). Also, male patients are likely to have a higher quality of life than female patients (Abrefa-Gyan & Okundaye, 2016). In addition, male patients were observed to likely have a better quality of life than females.

Though social support is important in disease management, the environment where the support comes from may also be indicative of the likely effects on the quality of life of the person with the disease. Much emphasis on social support in this study is about the collective good of the general population other than an individual. However, it is important to point out that, in the same environment, some societal behaviours and attitudes are likely to affect the well-being 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 represents the need to examine how the collective effects of family, friends and significant others affect the quality of life of persons living with HIV/AIDS.

HIV/AIDS is a chronic disease. Therefore, a person living with HIV/AIDS has to live with it for the entire life span. Medication adherence is important since non-adherence could lead to the worsening of the condition. Social support is a key factor in the advice on medication, mental well-being and physical well-being with the rippling effect of enhancing the quality of life of people living with HIV/AIDS (Ansah, 2017). People living with HIV/AIDS need social support because most of them suffer from discrimination and stigmatization. These negative societal attitudes may tend to lower their morale and 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 (Ansah, 2017). 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. Most often, PLWHA is likely to experience a low or high quality of life depending on some factors. These factors may include the provision of Anti-Retroviral (ARVs) drugs, the 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 social support may include friend's support, relatives or guardians and aid from significant others. These factions play a significant role in the quality of life of PLWHA.

World Health Organization [WHO] (2016) 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 needs 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 a 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, and treatment adherence support is equally important. These were out to promote the quality of life of PLWHA. For instance, Antiretroviral treatment has been an effective therapy which is successful in arresting HIV progression and enabling those infected to achieve a satisfactory quality of life (WHO, 2016). Accordingly, with such support, it is presumed that PLWHA will have an improved quality of life if families, communities, government, nongovernmental agencies and significant others effectively administer social support.

An intriguing fact that brings the chapter on social support to a conclusion is that a person does not necessarily have to 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.

Spirituality concept in the Biopsychosocial (s) model

For many persons, this spiritual history unfolds within the context of an explicit religious tradition. Nevertheless, regardless of how it has unfolded, this spiritual history helps shape who each patient is as a whole person, and when a life-threatening illness strikes, it strikes each person in their totality (Pilaikiat et al., 2016). This totality includes not simply the biological, psychological, and social aspects of the person but also the spiritual aspects of the whole person as well. This biopsychosocial-spiritual model is not a "dualism" in which a "soul" accidentally inhabits a body (Neff & McMinn, 2020). Rather, in this model, the biological, the psychological, the social, and the spiritual are only distinct dimensions of the person, and no one aspect can be disaggregated from the whole. Each aspect can be affected differently by a person's history and illness, and each aspect can interact with and affect other aspects of the person.

Spiritual” is today an open and fluid concept. It can refer to many different aspects, from non-religious and non-theistic levels (such as the power of positive thinking) to deeply religious experiences. The contemporary pluralistic society and individualistic culture allow different people to have diverse interpretations of the term “spiritual”. In the health sciences, spirituality has received many definitions from different authors. Perhaps the most comprehensive definition by Canda, Furman and Canda (2019) on spirituality is that it is “the search for ultimate meaning, purpose and significance, about oneself, family, others, community, nature, and the sacred, expressed through beliefs, values, traditions and practices”. Many people express their spirituality in their formal religions or their traditional faiths. Others still strengthen their spiritual dimension with non-religious elements. Although religiosity and spirituality are distinct constructs, the overlap between them is remarkable and consistent. Thus, the term spiritual–religious (S-R) is often adopted to refer to transcendent elements and connectedness to life essence. There is extensive scientific documentation about the positive beneficial association between the binomial S-R and clinical parameters of physical and mental health, culminating in increased quality of life and longevity. This effect is not only statistically significant but also clinically relevant.

Spirituality also has a relationship with religious coping (Gaston-Johansson et al., 2013). The spiritual–religious coping refers to ways that individuals utilize a personal S-R framework to reduce the emotional distress caused by adverse events of life, such as loss or change. S-R beliefs, attitudes, or practices may give meaning to suffering, thus making it more bearable. Such an approach could regulate stress during circumstances that are out of patients' control. This positive S-R coping is a valuable resource of strength and hope, which should be encouraged by the physician. Some faith-based techniques for health purposes, such as repetitive prayer, can indeed produce stress relief. On the other hand, S-R coping may sometimes be harmful, when it is based on negative feelings such as anger, sorrow, guilt or stigma. Such negative S-R coping produces spiritual struggle that must be identified and addressed; otherwise, it will adversely affect the course of the disease, by worsening stress.

Spiritual Support also has an association with In-patient (Hodge, Salas-Wright & Wolosin, 2016). A contemporary orientation of the hospital experience model must encompass the spiritual dimension. In order not to hurt sensibilities or be invasive, the ideal situation is to check with the patient, on admission, whether he/she wants an S-R visit. If so, the patient's name goes into a list that is provided to the clergyman, who then makes the religious visit only for them, avoiding an inopportune intrusion. In a routine screening, desirable items include the record of the belief system (affiliation); level of religious observance; involvement with the religious community; and particularly important rituals. In health care institutions, chaplains typically serve people of many different denominations, in a multifaith effort. If the hospital does not have a chaplain, external clergymen may make occasional visits. Alternatively, for less specialized needs, laic volunteers may support universal questions without discussing beliefs, through presence, compassion, and understanding. The minimum role of the physician, as an important agent in this process, is to identify proactively S-R needs and to trigger the available supportive resources.

Empirical Review

The quality of life of persons living with HIV/AIDS

Liping, Peng, Haijiang, Lahong and Fan (2015) investigated the quality of life of persons living with HIV/AIDS in China. This study evaluated the Quality of Life (QOL) of people living with HIV/AIDS (PLWHA) in Zhejiang province, China, and assessed the influences of demographic, laboratory and disease-related variables on QOL. This cross-sectional study was conducted among PLWHA aged ≥ 18 years in Taizhou municipality, Zhejiang province, China, between August 1 and October 31, 2014. A multiple linear regression model was used to analyse the influential factors. Of 403 subjects, 72.48% were male, 72.46% had received a high- school or above education, 94.79% were of Han ethnicity, and 65.51% were non-farmers. The total score of QOL was 15.99±1.99. The scores of QOL in physiological, psychological, social relation, and environmental domains were 14.99 ±2.25, 14.25 ±2.12, 13.22 ±2.37, and 13.31 ±1.99 respectively. Except for the total score of QOL and the score of the environmental domain ($p<0.05$), the scores in other domains had no significant difference from the results of the national norm level. The multiple linear regression model identified the physical domain-related factors to be age (β = -0.045), CD4 count (β = 0.002), and ART adherence (β = 1.231). And it also showed that psychological domain-related factors included CD4 count (β = 0.002) and WHO clinical stage (β = -0.437); social domain-related factors included WHO clinical stage (β = -0.704) and ART adherence (β = 1.177); while environmental domain-related factors included WHO clinical stage (β = -0.538), educational status (β = 0.549) and ART adherence (β = 1.078). The researchers concluded that those who are young, with a higher level of education, higher CD4 count and good access and adherence are likely to have better QOL among PLWHA in Zhejiang province. This suggests that in addition to ART, many other factors should be taken into consideration to improve the QOL of PLWHA. The relatively lower scores the subjects received in social relations and environmental domains also suggested that social relations and environmental interventions need to be strengthened.

Hipolito et al. (2017) in another study also investigated the quality of life of persons living with HIV/AIDS in Brazil. The study was done to analyse the quality of life of people living with HIV/AIDS and its relationship with sociodemographic variables, health satisfaction and time since diagnosis. The study method was a quantitative, cross-sectional study with a sample of 100 HIV-positive people monitored in a specialized service in south-eastern Brazil. Sociodemographic and health forms were applied, followed by the WHOQOL-HIV BREF, a short form instrument validated to evaluate the quality of life. Descriptive and inferential statistical analysis was performed. The study results showed that the perception of quality of life was intermediate in all quality-of-life domains. A relationship was identified between greater satisfaction with health and better quality of life, as well as statistically significant differences among the dimensions of quality of life according to gender, employment status, family income, personal income, religious beliefs and time since diagnosis. The study concluded that the time since the diagnosis of HIV infection enables reconfigurations in the perception of quality of life, while spirituality and social relationships can assist in coping with living with this disease.

In West Africa also, Yaya et al. (2019) conducted a study on the quality of life of HIV/AIDS patients in Togo. The objective of this study was to assess the quality of life and to identify factors associated with good global quality of life among people living with HIV/AIDS (PLWHA) in Togo. In total, 880 PLWHA with mean age (standard deviation) of 39.6 (10.1) years, were interviewed. Most of them (78.4%) were female. The global score of quality of life ranged from 42.6 to 112, with a mean (standard deviation) estimated at 86.3 ± (13.3). More than three-quarters (76.2%) of the participants had a good global quality of life. In multivariate analysis, secondary education level or higher (adjusted odds ratio = 1.78, 95% confident interval (CI) [1.10–2.85]), living in Kara health region (adjusted odds ratio = 4.39, 95% CI [2.94–6.57]), being on antiretroviral therapy (adjusted odds ratio = 6.99, 95% CI [4.11–11.9]) and HIV zero-status disclosure (adjusted odds ratio = 1.83, 95% CI [1.28–2.61]) were associated with a better overall quality of life (score ≥ 77.3). The study concluded that PLWHA interviewed in these two health regions reported a good overall QOL. In addition, the high level of education, ART, living in the Kara region and HIV zero-status disclosure was associated with better overall QOL. This QOL could therefore reflect the quality of HIV-related care and other interventions that PLWHA benefit in these health facilities. So, it becomes important to strengthen the caregivers' competencies in HIV-related but also implement interventions that could encourage PLWHA to disclose their zero status.

In Ghana, Osei-Yeboah et al. (2017) also did a study investigating the quality of life of HIV/AIDS patients. Quality of life (QoL) is an important component in the evaluation of the well-being of people living with HIV/AIDS (PLHIV). This study was aimed at evaluating the QoL of PLHIV attending the antiretroviral clinics in the Ho municipality. A cross-sectional study was conducted from January 2017 to April 2017 involving 158 purposively selected HIV-positive patients who were attending the antiretroviral clinics both in the Volta Regional Hospital and Ho Municipal Hospital. An interviewer administered standard questionnaire (WHOQOL-HIV Bref) was used to collect information on socio-demographics, medical history, and the quality of life (QoL) of the respondents. Among these 158 HIV-positive respondents, 126 (79.75) and 14 (8.86) presented with excellent and good overall QoL, respectively, whilst 18 (11.39) had their lives negatively affected by HIV/AIDS. Religious/personal beliefs (19.62%) were the most affected QoL component, followed by the physical (15.82%) and level of independence (15.19%) domains. Patients' occupation, perception of health, sexual activity, and state of the disease were associated with poor overall QoL. In general, being an HIV-infected man, a symptomatic patient, not being sexually active, or being ART naïve was also associated with poorer QoL in several HIV/AIDS QoL domains.

The level of social support for persons living with HIV/AIDS

The level of social support for persons living with HIV/AIDS in the United States of America was investigated by Flickinger et al. (2017). The researchers investigated how social support was exchanged through a "positive links smartphone app" i.e., an app that promotes social support, in a group of 55 participants over 8 months, using an adaptation of the Social Support Behaviour Code. Participant interviews assessed their experiences and perceptions of the app. Out of 840 posts analysed, 115 (14 %) were coded as eliciting social support and 433 (52 %) as providing social support. Messages providing support were predominantly emotional (41 %), followed by the network (27 %), esteem (24 %), informational (18 %), and instrumental (2 %) support. Findings of the study showed that participants perceived connection and support as key benefits of the app. Again, technical issues and interpersonal barriers limited some participants in fully using the app. The study shows that Mobile technology offers a useful tool to reach populations with barriers to in-person support and may improve care for PLWH.

Kamen et al. (2016), also, conducted a study in the U.S.A on the social support of persons living with HIV/AIDS. The study examined factors theoretically related to the development of post-traumatic growth (PTG) in persons living with HIV/AIDS (PLH), namely HIV-related stigma, disclosure of HIV status, and emotional support. A sample of 334 HIV-positive adults answered a battery of self-report questionnaires. HIV-related stigma, disclosure to sexual partners, and emotional support were significant predictors of PTG: stigma was associated with lower PTG, whereas disclosure and emotional support were associated with higher PTG. Disclosure and emotional support remained significantly associated with PTG in the model including demographic factors and stigma. These findings highlight the need for the development of interventions that can aid PLH in disclosing their HIV status to sexual partners and increasing available social support.

In Africa, a study was, similarly, carried out in Uganda to ascertain the level of social support for persons living with HIV/AIDS (Seffren et al., 2018). Secondary analysis was conducted on baseline data from 288 HIV-positive women enrolled in a parenting intervention in Uganda. Depression and anxiety symptoms, social support, and coping were assessed with the Hopkins Symptom Checklist and adapted versions of the Multidimensional Scale for Perceived Social Support and Ways of Coping Questionnaire. General linear regression models were used to estimate associations between coping and mental health. Based on the report of elevated symptoms, approximately 10% of women were categorized as having clinically-relevant depression or anxiety. Emotion-focused (EF: $p < .001$) and problem-focused (PF: $p = .01$) coping were associated with more depressive symptoms while greater family support (EF: $p = .002$; PF: $p = .003$) was associated with fewer depression symptoms. More anxiety symptoms were associated with reporting both coping strategies (EF: $p < .001$; PF: $p = .02$) and higher community support (EF&PF: $p = .01$). The cross-sectional nature of the study limits our ability to rule out the role of reverse causation in the significant relationship between coping and mental health. Findings did suggest that high family support can be protective against depression and anxiety symptoms among women living with HIV.

Kalomo (2018) also conducted a study to ascertain the level of social support for persons living with HIV/AIDS in Namibia. The study sought to investigate the association between HIV-related stigma, self-esteem, social support, and depression of people living with HIV and AIDS (PLWHA) in Namibia. Purposive sampling was used to recruit a total of 124 men and women living with HIV/AIDS in the Katima Mulilo region of northern Namibia. A cross-sectional survey was used to collect information on demographics, self-esteem, social support, HIV-related stigma, and depression. The results using Correlation analysis revealed that HIV-related stigma, self-esteem, and social support were all significantly correlated with depression. Further, Ordinary Least Squares (OLS) regression analysis indicated that HIV-related stigma was the largest risk factor and self-esteem was the largest protective factor concerning depressive symptoms. Findings indicated the necessity of appropriate assessment and intervention for psychosocial distress among PLWHA. Helping professionals should design evidence-based interventions that address individual and societal challenges that impact people living with HIV/AIDS.

In Ghana, Abrefa-Gyan, Cornelius and Okundaye (2016) in another study investigated the level of social support for persons living with HIV/AIDS. A convenience sample of 300 HIV/AIDS support group members was obtained via a cross-sectional design survey. The Medical Outcome Studies (MOS) HIV Health Survey, the MOS Social Support Survey (MOS-SSS), and demographic questionnaire instruments were used to assess the quality of life, social support, and demographic information respectively. Multiple regression analysis showed that there was a positive association between overall social support and overall quality of life ($r = .51$). It also showed that being younger, male, attending support group meetings for over a year, and having ≥ 13 years of schooling related to a higher quality of life. Implications of the findings for practice, policy, and research in Ghana and the rest of the developing world were discussed.

The level of spirituality of persons living with HIV/AIDS

Pinho et al. (2017) conducted a study in Brazil to investigate the level of spirituality of persons living with HIV/AIDS. The researchers sought to evaluate the religiosity and the religious/spiritual coping of people living with HIV/AIDS. The researchers adopted a descriptive, cross-sectional study with a quantitative approach. The study was conducted in a reference HIV/Aids outpatient clinic in a university hospital of-PE, Brazil, from June to November 2015. A total of 52 people living with HIV/AIDS (PLWHA) participated in the research, which employed the questionnaire, the Duke University Religion Index (DUREL), and the Religious/Spiritual Coping Scale (RCOPE). The results of the study revealed that the sample presented high indices of organizational religiosity (4.23±1.66), non-organizational religiosity (4.63±1.50), and intrinsic religiosity (13.13±2.84). Positive RCOPE was used in high mean scores (3.66±0.88), and negative RCOPE had low use (2.12 ± 0.74). In total, the use of RCOPE was high (3.77±0.74), having predominated the positive RCOPE (NegRCOPE/ PosRCOPE ratio=0.65±0.46). The researchers concluded that it is very important to encourage spiritual and religious activities in HIV/AIDS as higher levels of spirituality and religious coping affects clinical practice.

In another study, Sulung and Asyura (2019) investigated the level of spirituality among persons living with HIV/AIDS. The study aimed to explore, describe, and interpret the experience of spirituality to self-acceptance in patients with HIV/AIDS. This research was a qualitative approach by descriptive phenomenology of participants involving 10 people, consisting of 5 men and 5 women. All participants were Muslims with the edition level ranging from junior high school to university. The ages ranged from 29 to 46 years. The research identified two themes which were: (1) being able to take the lesson from their diseases, and (2) self-acceptance as people living with HIV/AIDS. All 10 participants participated fully in this study. A method of in-depth interviews and observation was adopted as the technique of data collection. The specific data analysis technique used was adopted from the Creswell method. Results of the study showed that the people had higher levels of spirituality and the researchers recommended that patients should get motivated and develop aspects of spirituality so that it can help to ease the process of self-acceptance, such as getting closer to God through prayer, reading and fasting, etc.

Hutson, Darlington, Hall, Heidel and Gaskins (2018) also conducted a study into the spirituality of persons living with HIV/AIDS in Southern Appalachia. The purpose of this study was to examine the relationship between HIV-related stigma and spiritual well-being among a sample of PLWH (*n* = 216) in Appalachian counties of Tennessee and Alabama using the HIV Stigma Scale and the Spiritual Well-being Scale. Overall, disclosure of HIV status was the most highly reported stigma concern. Women reported higher levels of stigma and religious well-being than men. While existential well-being was negatively correlated with stigma, no significant overall correlation was found between religious well-being and stigma. The findings of the study revealed the importance of defining theology and differentiating between cultural religious conditioning and internalized beliefs.

Lastly, Arrey, Bilsen, Lacor and Deschepper (2016) also conducted a study on the spirituality of persons living with HIV/AIDS using south Sub-Saharan African Migrant women living in Belgium. The study was done as spirituality/religion serves important roles in coping, survival and maintaining overall wellbeing within African cultures and communities, especially when diagnosed with a chronic disease like HIV/AIDS that can have a profound effect on physical and mental health. The objective of this study was to examine the role of spirituality/religion as a source of strength, resilience and well-being among sub-Saharan African (SSA) migrant women with HIV/AIDS. A qualitative study of SSA migrant women was conducted between April and December of that year. Participants were recruited through purposive sampling and snowball techniques from AIDS Reference Centres and AIDS workshops in Belgium, if they were 18 years and older, French or English speaking, and diagnosed HIV positive more than 3 months beforehand. The researchers conducted semi-structured interviews with patients and did observations during consultations and support group attendances. Thematic analysis was used to analyse the data. 44 women were interviewed, of whom 42 were Christians and 2 Muslims. None reported religious/spiritual alienation, though at some point in time, many had felt the need to question their relationship with God by asking Why me?" A majority reported being more spiritual/religious since being diagnosed as HIV positive. Participants believed that prayer, meditation, regular church services and religious activities were the main spiritual/religious resources for achieving connectedness with God. They strongly believed in the power of God in their HIV/AIDS treatment and well-being. Spiritual/religious resources including prayer, meditation, church services, religious activities and belief in the power of God helped them cope with HIV/AIDS. These findings highlighted the importance of spirituality in physical and mental health and well-being among SSA women with HIV/AIDS which should be taken into consideration in providing a caring and healthy environment.

Influence of social support on the Quality of Life of persons living with HIV/AIDS

Li et al. (2017) also conducted a study to investigate the influence of social support on the quality of life of persons living with HIV/AIDS in Asia. The study was conducted to further investigate the model of social support and care for People Living with HIV/AIDS (PLHA), to explore the role in People Living with AIDS's quality of life (QOL) as a reference for improving nursing policies for AIDS. The design for the study was a nonrandomised controlled community intervention study. The participants included those diagnosed as living with HIV/AIDS at a hospital in Beijing and were receiving social support care for at least a year. To evaluate the impact of the social support and care model on People Living with HIV/AIDS, the researchers analysed the different dimension scores of the social support scale and quality of life before and after the intervention. Correlate correlation between the net benefit value of social support and that of QoL from various dimensions was also analysed. The results revealed that there were significant differences in the score of objective support and usage of support (all $p = 0{\cdot}02$) for social support. Net values of objective support score and usage of support were 0·25 and 0·19, respectively, after the intervention. There were significant differences in physiological function, role physical, general health, vitality, social function, mental health, health transition and total score of quality of life (all $p < 0{\cdot}05$). The canonical correlation analysis of net values of social support and QoL indicated that the first and second canonical correlations were statistically significant, with correlation coefficients of 0·53 ($p = 0{\cdot}00$) and 0·21 ($p = 0{\cdot}04$). The researchers concluded that the social support and care intervention model can effectively improve perceived subjective feelings on social support and QoL condition for People Living with HIV/AIDS. Thus, it was recommended that strategies to improve social support and care intervention programmes should be adopted.

In another study, Shrestha et al. (2019) investigated the influence of social support on the quality of life of persons living with HIV/AIDS (PLHIV) in India. The study incorporated a moderated mediation model to investigate whether coping strategy mediates the relationship between perceived social support and QoL, and to examine whether this mediating effect varies with the level of internalized stigma among PLHIV. A cross-sectional study was conducted among 599 PLHIV in Nepal. The multidimensional scale of perceived social support, World Health Organization Quality of Life-BREF, Brief COPE, and AIDS-related stigma scales were used to measure perceived social support, QoL, coping strategy, and internalized stigma, respectively. Data were analysed using structural equation modelling and moderated mediation analysis was conducted with a multi-group approach. The relationship between perceived social support and QoL was significantly and partially mediated by a problem-focused coping strategy. Internalized stigma significantly moderated the mediating effect of coping strategies on the association between perceived social support and QoL. For the high internalized stigma group (total stigma score > 2), the effects of perceived social support on QoL were indirect ($\beta = 1.48$; 61.0% of total effects) through the mediating effect of coping strategy, especially problem-focused coping. For the low internalized stigma group (total stigma score ≤ 2), a problem-focused coping strategy did not significantly affect the QoL, and most of the effects of perceived social support were direct ($\beta = 1.24$; 99.2% of total effects). Internalized stigma was found to moderate the mediating effect of problem-focused coping on the relationship between perceived social support and QoL. It was recommended that enhancing problem-focused coping and social support may be helpful to improve QoL among PLHIV reporting high stigma.

In China, Li, Xiao, Qiao, Zhou and Shen (2017) also investigated how social support affects the quality of life of persons living with HIV/AIDS. The researchers collected data from 2987 people living with HIV in China and employed structural equation modelling to examine the relationships between social support, depression, and quality of life (QoL). The results revealed that depression was the strongest predictor of the psychological, energy, and mobility aspects of QoL with $\beta = -.70$ ($p < .001$), $\beta = -.47$ ($p < .001$), and $\beta = -.44$ ($p < .001$), respectively. Emotional social support was a significant predictor of depression ($\beta = -.12, p < .001$), mobility ($\beta = .20, p < .001$), energy ($\beta = .15, p < .001$), and psychological aspect ($\beta = .06, p < .05$). Informational social support was a significant predictor of mobility ($\beta = -.08, p < .01$), energy ($\beta = -.06, p < .05$), and psychological aspect ($\beta = -.07, p < .001$). Functional social support was only negatively associated with mobility ($\beta = -.16, p < .01$). Therefore, depression hurt physical (perceived mobility and energy) and psychological (positive/negative feelings, thinking, learning, memory, and concentration) aspects of QoL. Emotional social support had both direct and indirect effects (through its buffering effect on depression) on better QoL. However, the associations between informational social support and the three aspects of QoL were negative; and informational social support did not have a buffering effect on depression. Functional social support was negatively associated with mobility, which means the provision of functional support to PLHIV may not necessarily be associated with better QoL. The researchers recommended that HIV/AIDS care in China should consider the conceptual differences between emotional, informational, and functional support.

In Ghana, Birore, Wu, Abrefa-Gyan and Lewis (2022) investigated how social support affects the quality of life among people living with HIV/AIDS. This study implemented a 6-week-long Social Care Intervention (SCI) Program in Ghana and identified protective factors associated with Quality of Life (QoL) among people living with HIV/AIDS (PLWHA). The researchers discovered that the SCI model in the form of social support was associated positively with differences in the QoL among PLWHA. Logistic regression revealed that social support, especially affectionate support, was positively associated with a higher level of QoL. People who were older and healthier tended to have higher levels of QoL compared with their counterparts who were younger and sicker. These findings suggested that building social support system could serve as an empowerment approach to promote quality of life among PLWHA in low- and middle-income countries (LMICs) where resources are limited.

Influence of Spirituality on the quality life of persons living with HIV/AIDS

Grill, Wang, Cheng and Lyon (2020) investigated how spirituality influences the quality of life among persons living with HIV/AIDS. The study sought to determine distinct latent classes of religiousness/spirituality for adult persons living with HIV (PLWH) and associations between latent class membership and HRQoL. Baseline data were collected from 223 patients in the FAmily CEntered (FACE) Advance Care Planning (ACP) clinical trial for PLWH. Patients completed the Brief Multidimensional Measurement of Religiousness/Spirituality (BMMRS-adapted), Patient Health Questionnaire (PHQ-9), Medical Outcomes Study-HIV Health Survey (MOS-HIV), and the Palliative care Outcome Scale (POS). The optimal number of latent classes was determined by comparing the K-Class model with the (K-1)-Class model iteratively. The relationship between latent class membership, HRQoL, and demographic characteristics was assessed. Patients were 56.1% male, 86.1% Black, aged 22–77 (*M* = 50.83), 75.3% were Christian. LCA identified three classes: traditionally religious (35%), privately religious (47.1%), and spiritual but not religious (17.9%). MOS-HIV mental health ($p < .001$), MOS-HIV quality of life ($p = .014$), and MOS-HIV health transition ($p = .016$) scores were significantly higher among patients who were traditionally religious. These patients were more likely to be 40+ years and Black. Patients in the privately religious group had the lowest levels of mental health and HRQoL. The researchers recommended that understanding how religiousness and spirituality influence HRQoL can help the medical community develop holistic, patient-centred and culturally sensitive interventions that could improve outcomes for PLWH and potentially mitigate the impact of health disparities within the Black and LGBTQ communities.

In another study, Zarei and Joulaei (2018) investigated the association between spirituality and the quality of life of persons living with HIV/AIDS in Iran. The study aimed at investigating the related factors of suicidal ideations among HIV-positive patients in Southwest Iran. A cross-sectional design was adopted for the study. 351 adult volunteer HIV-infected patients that referred to the Voluntary Counselling and Testing (VCT) centre in the south of Iran were evaluated based on convenience sampling. Data were collected utilizing a structured questionnaire from March to August. Over the six months before the study, 15.4% of the entire sample had been diagnosed with suicidal ideation. There was a significant correlation between the quality of life, spiritual beliefs, perceived stigma, and age with suicidal ideation. Suicidal ideation was significantly different in terms of gender and marital status. Perceived stigma and spiritual beliefs showed the highest effect on suicidal ideations, respectively. The researchers concluded that having religious beliefs due to accelerating psychological adaptation can motivate HIV patients to survive and have also been considered effective in preventing women from suicide. Recommendations were made that perceived stigma and quality of life are other factors that should be taken into consideration as key elements in suicide preventive programs.

Lastly, Counted, Possamai and Meade (2018) investigated spirituality and quality of life through a systematic review from 2007 to 2017. Despite the increasing number of evidence-based research on relational spirituality (RS) and quality of life (QoL) in medical-health research, little was known about the links between RS and QoL outcomes and the mechanisms by which RS aspects are functionally tied to QoL. To determine how RS was perceived/positioned about QoL, the researchers (a) examined recent available data that identify and appraise the links between RS and QoL; (b) identified themes emerging from the association between RS and QoL, and (c) discussed the implications of the effects of RS on QoL outcomes. The researchers conducted an integrative research review of English-language peer-reviewed articles published between 2007 to March 2017 which examined an association between RS and QoL, as identified from a search of three databases: PubMed, PsycINFO, and Science Direct. A total of 20 studies were analysed. Of these, twelve (60%) reported a positive association between RS and QoL, three (15%) studies reported inverse associations, whereas five (25%) studies showed evidence of a lack of association (with two out of the five studies showing an indirect association). Physical health and psychological functioning were the most researched domains of QoL, and some studies suggest an attachment-based model of RS in the last 10 years of RS and QoL research. Studies conducted with participants with serious illnesses ranging from dementia, cardiac arrest, and breast cancer reported no association between RS and physical health. The review shows evidence of both the direct and/or indirect effects of RS on QoL as a possible spiritual coping model for complementary alternative health therapy, albeit occurring through several religious-related psychosocial conduits. The study concluded that RS appears to be associated with health benefits as indicated across QoL domains. It was recommended that general medical practitioners and other healthcare agencies could benefit from the understanding that a spiritual coping model could aid their patients, and therefore their clinical practices, in the healing process.

Relationship between Spirituality and Social Support

Tuck, McCain, and Elswick (2001) examine the relationships among spirituality and psychosocial factors in a sample of 52 adult males living with human immunodeficiency virus (HIV) disease and to determine the most reliable spirituality measure for a proposed longitudinal study. The study adopted descriptive correlational design to explore the relationships of spirituality and psychosocial measures. Spirituality was measured in terms of spiritual perspective, well-being and health using three tools: the Spiritual Perspective Scale, the Spiritual Well-Being Scale, and the Spiritual Health Inventory. Five psychosocial instruments were used to measure aspects of stress and coping: the Mishel Uncertainty in Illness Scale, Dealing with Illness Scale, Social Provisions Scale, Impact of Events Scale, and Functional Assessment of HIV Infection Scale. The sample was recruited as part of an ongoing funded study. The procedures from the larger study were well-defined and followed in this pilot study. Correlational analyses were done to determine the relationship between spirituality and the psychosocial measures. The findings indicate that spirituality as measured by the existential well-being (EWB) subscale of the Spiritual Well-Being Scale was positively related to quality of life, social support, effective coping strategies and negatively related to perceived stress, uncertainty, psychological distress and emotional-focused coping. The other spirituality measures had less significant or non-significant relationships with the psychological measures.

Additionally, Simoni, Frick, and Huang (2006) examined a longitudinal evaluation of a social support model of medication adherence among HIV-Positive men and women on antiretroviral therapy. The authors propose a cognitive–affective model of medication adherence based on social support theory and research. Structural equation modelling of longitudinal survey data from 136 mainly African American and Puerto Rican men and women with HIV/AIDS provided preliminary support for a modified model. Specifically, baseline data indicated social support was associated with less negative affect and greater spirituality, which, in turn, were associated with self-efficacy to adhere.

Moreover, Kalomo, Jun, Lee and Kaddu (2021) examined depressive symptoms among older adults with HIV in Namibia: the role of social support and spirituality. The study employed cross-sectional exploratory design. The sample consisted of 147 Oshiwambo-speaking older adults (mean age = 61 years, SD = 6.92 years) with HIV in Namibia. The Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet & Farley, 1988) was used to measure social support. The MSPSS has been used previously in South Africa (Kuo et al., 2012). The Spiritual Beliefs Scale (Cicirelli, 2011) was modified and used to measure the level of spirituality of older adults living with HIV. The Patient Health Questionnaire (Kroenke, Spitzer & Williams, 2001), was used to measure depressive symptoms. By utilising a hierarchical multivariate regression method, this study found that social support from friends and spirituality showed a significant negative relationship to depressive symptoms. In addition, self-rated health status and alcohol use were significant sociodemographic predictive factors of depressive symptoms. This study suggests the need to develop interventions and support programmes that incorporate peer support and spiritual practice to promote health and well-being among older persons living with HIV in Namibia.

Finally, Tarakeshwar, Hansen, Kochman, and Sikkema (2005) examined gender, ethnicity and spiritual coping among bereaved HIV-positive individuals. A total of 268 individuals with HIV 252 (164 males, 88 females)) from two metropolitan areas, Milwaukee, WI, and New York, NY, participated in the study, which was part of a randomized controlled trial for a group intervention on coping with AIDS-related loss and bereavement. The study used a 20-item scale by Folkman, Chesney, Collette, Boccellari and Cooke (1996) to measure health status, 40-item Instrumental Support Evaluation List by Cohen, Mermelstein, Kamark and Hoberman (985) to measure the participant's perceived social support, Ways of Coping Questionnaire (Folkman, & Lazarus (1988) and Coping With Illness (CWI) scale by (Namir, Wolcott, Fawzy & Alumbaugh, 1987) to measure participants’ coping responses, and 12-item Grief Reaction Index by Lennon, Martin & Dean (1990), was used to measure common grief symptoms of numbness, denial, and preoccupation with the deceased. Multivariate analyses of covariance revealed that spiritual coping was not influenced by perceived social support.

Conceptual framework

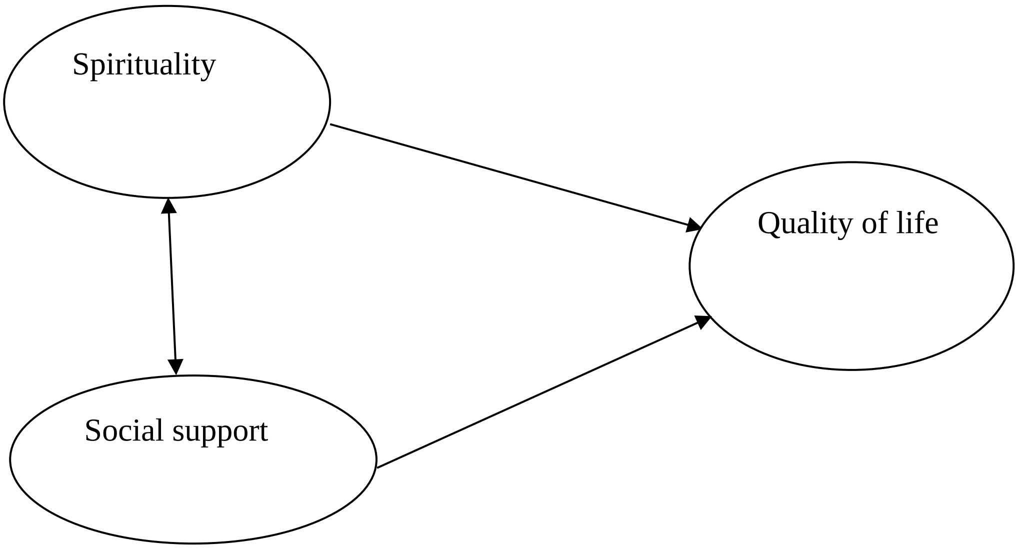

Figure 1: Spirituality, social support and quality-of-life model of HIV patients

Source: The Author (2023).

In this study, Spirituality and Social support are independent variables, while Quality of life is the dependent variable. This figure explains that spirituality and social support are acting as independent variables, and these variables may influence Quality of life, which acts as the dependent variable among HIV patients.

Chapter Summary

This chapter reviewed three theoretical frameworks relevant to understanding the influence of spirituality and social support on the quality of life of persons living with HIV/AIDS. The Health Belief Model (HBM) explains how individuals' perceptions of susceptibility, severity, benefits, and barriers influence their health-related behaviors. The Theory of Planned Behaviour

(TPB) predicts behavioral achievement based on motivation (intention) and ability (behavioral control). The Biopsychosocial Model (not fully discussed in this excerpt) provides a comprehensive framework for understanding the interplay between biological, psychological, and social factors affecting health outcomes. These theoretical frameworks provide a foundation for understanding the complex factors influencing the health behaviors and quality of life of individuals living with HIV/AIDS.

CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter presents the methods which will be used for the study. The chapter, therefore, begins with an overview of the design to be employed, then the population for the study and how the sample is drawn out from the population. Another subsection puts the study in context by describing the area where the study was be undertaken, with further subsections addressing the instruments used for data collection, the procedures to be employed, ethical considerations, and finally, the various statistical techniques used in analysing the data.

Research Design

The study employed a quantitative research approach, which focuses on collecting numerical data to generalise findings across populations or to explain specific phenomena (Babbie, 2010; Creswell, 2013). This approach is grounded in the positivist philosophical framework, which emphasises objectivity and the ability to prove or disprove hypotheses. Positivism asserts that real-world events can be observed empirically and analysed logically, with the validity of scientific theories evaluated based on their consistency with observable data. However, it is important to note that positivist approaches may address symptoms rather than underlying causes, and while they have significantly influenced social science research, they are not without limitations (Bryman, 2016; Lincoln & Guba, 2000; Krauss, 2005; Corry et al., 2019).

Within this quantitative framework, a descriptive research design was specifically adopted to systematically describe the characteristics and experiences of persons living with HIV/AIDS (PLWHA) attending Cape Coast Teaching Hospital. Descriptive research is characterized by its aim to provide a detailed account of a phenomenon, situation, or population through the collection of quantitative data, without manipulating variables (Kazdin, 2021; Tracy, 2019). This design allows for the measurement of data trends, comparison of variables, and definition of participant characteristics, thus laying the groundwork for further research (Abbott & McKinney, 2013).

While descriptive research is advantageous due to its speed, cost-effectiveness, and high external validity, it does not allow for testing or verification of causal relationships, as the researcher does not control or manipulate variables. Instead, the focus is on identifying, observing, and measuring existing conditions. Therefore, the effectiveness of this design hinges on well-formulated research problems; if poorly defined, the resulting data may be unreliable, making the investigation more challenging (DePoy & Gitlin, 2019). By adopting a descriptive research design, the study aims to capture a comprehensive snapshot of how spirituality and social support influence the quality of life among PLWHA, setting a foundation for future inquiry.

Study Area

A study area can be referred to as an immersive environment, each of which contains numerous settings for the researcher to manipulate (Lindlof &Taylor, 2011). According to Bryman (2016), research takes place in a setting to seek understanding, make sense or interpret data based on meanings participants attached to them. The study was be done in the Cape Coast Metropolis. Cape Coast is the administrative capital of the Cape Coast Metropolitan District and Central Region of South Ghana. Cape Coast had a settlement population of 2,859,821 persons according to the 2021 Ghana population census (Ghana Statistical Services, 2020), with Fante as the primary language. However, many people can read, speak, and understand the fundamentals of the English language. The economy of Cape Coast is mostly dependent on fishing, but smaller farming villages border it. Among the second-cycle colleges in Cape Coast are St. Augustine College, National College, Wesley Girls' Senior High School, Holy Child School, Mfantsipim Senior High School, and Adisadel College. The University of Cape Cost and the Cape Coast Technical University are the city's tertiary institutions.

Cape Coast is fortunate to have three major hospitals. They are the University of Cape Coast Hospital, the Cape Coast Metropolitan Hospital, and the Cape Coast Teaching Hospital (CCTH), often known as the Central Regional Hospital. The Cape Coast Teaching Hospital was chosen because the majority of chronic health conditions, such as HIV/AIDS, are referred to it for treatment and care from adjacent towns and villages. Furthermore, the majority of HIV/AIDS research in Ghana has focused on Korle Bu Teaching Hospital (KBTH), Accra, and Komfo Anokye Teaching Hospital (KATH) (Asobayire & Barley, 2015; Clegg-Lamptey et al., 2010; Mena, Terry, Williams, & Ellram, 2014; O'Brien & Keyder, 2012; Opoku-Anane, Diouf & Nour, 2012; Williams & Amoateng, 2012; Naku-Ghartey et al, 2016). The hospital was purposively chosen because it is in line with the criteria of the research: access, language, time, availability, cost, and convenience.

Population

In theory, all persons living with HIV/AIDS who visit the CCTH were included in this study. A population is defined as the total membership of a particular class of people, things, or events, according to O'Leary (2004). The proposed study's population were all people diagnosed with HIV/AIDS who report to the CCTH. The reasons for the study area are due to convenience, data availability, and accessibility.

The accessible population consisted of all persons living with HIV/AIDS who visited the CCTH. The participants were persons living with HIV/AIDS. This study aimed at studying only Ghanaians and those who were unwilling to participate in the study. A total number of 3000 participants were accessible for sample determination.

Sampling Procedure

To determine the appropriate sample size, Krejcie and Morgan's (1970) sample determination table was used, which recommends a sample size of 196 from a population of 3,000 (Hospital’s Database, 2023). This method is appropriate when the population size is known. The study employed convenience sampling, a non-probability sampling technique frequently used in clinical and population research (Stratton, 2021). Although convenience sampling is often criticised for its susceptibility to bias and its inability to assess sampling error or statistical validity, it has practical advantages, particularly in contexts where other sampling methods may not be feasible.

Convenience sampling was chosen for this study due to several factors. First, while it is true that convenience sampling limits generalizability because the associations and effects identified in the sample may not reflect those in the broader target population, it is also a cost-effective, quick, and simple method. For this study, where the population consists of persons living with HIV/AIDS who attend hospital appointments on a weekly basis, convenience sampling provided a practical way to recruit participants. The researcher was present during clinic days, seeking consent from individuals as they visited the hospital, thus capitalising on the accessibility of participants.

Moreover, while the method has its limitations, significant efforts were made to mitigate potential biases and improve the credibility of the results. For instance, efforts were made to recruit as many participants as possible, reducing the likelihood of skewed data from a smaller, less representative sample. Potential external biases, such as the specific characteristics of those who attend the hospital on certain days, were identified and considered during the analysis. Additionally, standardized data collection tools were employed to ensure consistency and reduce measurement error (Etikan & Babtope, 2019). These measures were taken to instil confidence in the credibility of the results.

In essence, convenience sampling was selected due to its practicality in a clinical setting where participants are available on a scheduled basis. Despite the noted limitations, this approach was the best choice given the constraints of time, cost, and accessibility. It allowed for the collection of valuable data within these constraints, with additional measures taken to ensure the study's credibility (Tyrer & Heyman, 2016).

Inclusion and exclusion criteria

The inclusion criteria for this study required participants to be individuals living with HIV/AIDS who were 18 years of age or older. Only Ghanaian citizens were eligible, and participants needed to be receiving care at the Cape Coast Teaching Hospital. Both males and females were included, regardless of their educational background, meaning that both educated and non-educated individuals were eligible.

The exclusion criteria specified that individuals under the age of 18 and non-Ghanaians living with HIV/AIDS were not eligible to participate. Additionally, individuals who were not receiving care at the Cape Coast Teaching Hospital were excluded. Furthermore, persons with cognitive impairments or severe mental health conditions that could prevent them from giving informed consent or effectively participating in the study were also excluded.

Data Collection Instruments

The research made use of standardised questionnaires to collect data. The data were then coded and scored. The standardised questionnaire is a systematically prepared document deliberately designed through the completion of questions to elicit responses from respondents or research information to collect data or information Seidu (2012). They make respondents freely speak about an issue and provide clear responses and they are also easy to code (Cohen, 2007). The following are the instruments that were adopted for data collection.

Multidimensional Scale of Perceived Social Support (MSPSS-12)

The study adopted the Multidimensional Scale of Perceived Social Support (MSPSS-12) scale to gather data on the social support of persons living with HIV/AIDS. The scale is made up of 12 items and measured on a 7-point Likert-type scale, ranging from 1-7 (1= Very Strongly Disagree, 2= Strongly Disagree, 3= Mildly Disagree, 4= Neutral, 5= Mildly Agree, 6=Strongly Agree, 7 = Very Strongly Agree). The possible lower score will be 12 while the possible highest score is 96. The former score depicts a low level of social support while the latter score means a higher level of social support. This scale has been proven to have test-retest reliability of 0.84 and a Cronbach alpha of 0.91 among patients (Wongpakaran, Wongpakaran, & Ruktrakul, 2011).

Spirituality Scale (SS-12)

The study adopted the Spirituality scale to gather data on the spirituality of HIV/AIDS patients. The scale is made up of 12 items and measured on a 6-point Likert type scale, ranging from 1-6 (1= strongly disagree, 2=disagree, 3= mildly disagree, 4= mildly agree, 5= agree and 6= strongly agree). The possible lower score will be 12 while the possible highest score is 72. The former score depicts a low level of Spirituality while the latter score means a higher level of Spirituality. This scale has been proven to have test-retest reliability of 0.84 and a Cronbach alpha of 0.94 among patients, (Delaney, 2015).

Quality-of-Life Scale

The study adopted the Quality-of-Life Scale to gather data on the spirituality of HIV/AIDS patients. The scale is made up of 26 items and measured on a 5-point Likert-type scale, ranging from 1-5 (1= very poor, 2 = poor, 3= neither poor nor well, 4= well, 5= very well). The possible lower score will be 26 while the possible highest score is 130. The former score depicts a low level of Quality of Life, while the latter score means a higher level of Quality of life. This scale has been proven to have a test-retest reliability of 0.84 and a Cronbach alpha among patients of 0.92 (Burckhardt et al., 1989).

Validation and Reliability of Instruments

The instruments were validated by piloting them on people who possessed similar features to the respondents selected for the study. Fraenkel & Wallen, 2003and Whitehead, Sully & Campbell (2014) explains pilot testing as a small-scale trial of the proposed procedure. Its purpose is to detect any problems so that they may be remedied before the study is carried out. Cohen (2007) also adds that piloting instruments help to eliminate ambiguity, help clarify questionnaires, identify redundant questions and gain feedback on the validity of instruments. The instruments were pilot-tested with twenty (20) persons living with HIV/AIDS from Cape Coast Teaching Hospital who were excluded from the main work (Contractor, Weiss, Kearns, Caldas & Dixon-Gordon, 2020). The result of the pilot survey is presented in table 2.

Table 2: Reliability of the Research Instrument

Scale	**Cronbach's Alpha**
Quality of Life	.871
Sub-scale:	
Physical Health QoL	.773
Psychological Health QoL	.753
Social Relations QoL	.769

Environmental Health QoL	.742
Overall Health QoL	.821
Social Support	.714
Sub-scale:	
Significant Other	.891
Family	.721
Friend	.711
Spirituality	.762
Sub-scale:	
Perennial	.827
Respect	.765
Purpose	.793

Source: Pilot Survey, 2023

The result showed that all the scales and the subscales recorded a Cronbach alpha value of more than 0.70, which means that there is an internal consistency in the items of the scales. Hence the researcher concludes that the scales are reliable.

Data Collection Procedure

The researcher on the appointed day visited the Cape Coast Teaching Hospital units to administer the questionnaires. The researcher briefed the participants on the purpose of the research and explained each of the statements on the questionnaire to them. For those who could read and understand, each participant was given ample time to complete the research. For those who could not read and understand, the researcher read and interpreted the questionnaire for them in the local dialect. Each participant was given forty minutes (40mins.)

to answer the questionnaire. In all, the researcher used two months for the data collection.

Ethical Considerations

Ethical considerations are critical for any research. According to Chesser, Porter and Tuckett (2020), ethics in research would better be maintained if respect for society, professionalism, and research participants are taken into consideration when planning the research. Leedys and Ormrod (2005) affirm that most ethical issues in research fall into four categories: protection from harm, informed consent, right to privacy, and honesty with professional colleagues. In this study, ethical guidelines for conducting the research are undertaken to ensure that ethical values are violated. The researcher collected an introductory letter from the University of Cape Coast, Department of Education and Psychology in order to collect an Ethical Clearance certificate from the Cape Coast Teaching Hospital Ethical Review Board (CCTHERB) to go to the field to collect data. The researcher ensured anonymity and confidentiality after seeking the consent of the participants. Opportunities were given to the participants to withdraw from the study at any point in time when they felt like doing so.

Data Processing and Analysis

The data collected were analysed quantitatively where the responses were tallied, tabulated, described, and interpreted. The responses from the participants were cleaned and coded into numerical data for further analysis using the Statistical Package for Social Sciences (SPSS) version 25 Software. For instance, the Multidimensional Scale of Perceived Social Support (MSPSS-

12) has three subscales (Significant Other Subscales, Family Subscale and Friends Subscale). The Significant Other Subscales has 4 items which are scored ranging from 4-28. With 4-1 representing the lower level of Significant Other Subscales while 17-28 representing the higher level of Significant Other Subscales. Family Subscale has 4 items which are scored ranging from 4-28. With 4-16 representing a lower level of Family Subscale while 17-28 representing a higher level of Family Subscale. Friends Subscale has 4 items which are scored ranging from 4-28. With 4-16 representing a lower level of Friends Subscale while 17-28 representing a higher level of Friends Subscale.

The Spirituality scale has 12 items with three sub-domains: Perennial Spirituality, Respect and Purpose. Perennial Spirituality has 5-items which were scored ranging from 5-30. With 5-17 representing a lower level of Perennial Spirituality while 18-30 representing a higher level of Perennial Spirituality. Respect has 4-items which were scored ranging from 4-24. With 4-14 representing a lower level of respect while 15-24 representing a higher level of respect. Honour has 3 items which were scored ranging from 3-18. With 3-10 representing lower levels of honour while 11-18 representing higher levels of honour.

The WHOQOL-BRIEF (Quality-of-Life scale) has four sub-domain (26 items) and two individually scored items about an individual's overall perception of quality of Life and health. The four domain scores are scaled in a positive direction with a higher score indicating a higher quality of life. The physical health domain has 7 items ranging from 7-35. With 7-21 representing lower levels of physical health while 22-35 representing higher levels of physical health. The psychological health domain has 6-items ranging from 6-30. With 5-18 representing lower levels of psychological health while 19-30 representing higher levels of psychological health. The social relationships domain has 3 items ranging from 3-15. With 3-9 representing lower levels of psychological health while 10-15 representing higher levels of Social relationships. The environment domain has 8 items ranging from 8-40. With 8-24 representing lower levels of psychological health while 25-40 representing higher levels of Social Relationships.

The researcher used descriptive statistics (frequencies, means, and standard deviations) to analyse research questions 1, 2, and 3; hypotheses 1 and 2 are tested using Multivariate Regression and Pearson Moment product correlation.

Chapter Summary

This chapter outlines the research design, study area, population, sampling procedure, and inclusion and exclusion criteria used in the study. A quantitative research approach with a descriptive research design was employed to investigate the influence of spirituality and social support on the quality of life of persons living with HIV/AIDS. The study was conducted at the Cape Coast Teaching Hospital in Ghana, with a sample size of 196 participants selected using convenience sampling. The inclusion criteria consisted of Ghanaian citizens aged 18 and above living with HIV/AIDS, while the exclusion criteria comprised individuals under 18, non-Ghanaians, and those with cognitive impairments or severe mental health conditions.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

The purpose of this study was to examine social support and spirituality as predictors of quality of life in patients with HIV/AIDS. The research techniques used in the study were described in chapter three. This chapter presents the results from the field data that were gathered from 198 questionnaires completed by HIV/AIDS patients in Cape Coast Teaching Hospital. The results are also discussed in relation to earlier literature to support the findings. The result of the data analyses has been reported under the following headings: description of demographic information, data analysis findings related to the study's research questions and findings from the hypothesis test.

Description of Demographic Information

This section describes the demographic details of the respondents who took part in the study. These details include Age, sex, occupation, and year of first diagnosis of the condition.

Age of Respondents

Table 3 displays the study's respondents' age distribution.

Table 3: Age Distribution of Respondents

Age range	Frequency	Percent
<30	36	18.2
30-40	54	27.3
41-50	61	30.8
51-60	31	15.7
61-70	13	6.6
>70	3	1.5
Total	198	100.0

Source: Field Survey, 2023

Table 3 shows that most (30.8%, n = 61) of the HIV/AIDS patients involved in the study are aged between 41 and 50 years. Also, the least (1.5%, n = 3) of persons living with HIV/AIDS involved in the study are more than 70 years.

Sex of Respondents

Table 4 shows the sex of the respondents.

Table 4: Sex of respondents

Sex of respondents	Frequency	Percent
Male	61	30.8
Female	137	69.2
Total	198	100.0

Source: Field Survey, 2023

Table 4 shows that most (69.2%, n = 137) of persons living with HIV/AIDS involved in the study are females, whilst the least (30.8%, n= 61) of them are males. This implies that more females than males of persons living with HIV/AIDS visit the Cape Coast Teaching Hospital.

Occupation of Respondents

Table 5 shows the Occupations of the respondents.

Table 5: Occupation of respondents

Occupation of respondents	Frequency	Percent
None	14	7.1
Semi-skilled (farmer, pito brewing, food vendor etc.)	112	56.6
Skilled (seamstress or hairdresser etc.)	33	16.7
Professional (nurse, teacher etc)	31	15.7
Student	8	4.0
Total	198	100.0

Source: Field Survey, 2023

Table 5 shows that most (56.6%, n = 112) of persons living with HIV/AIDS involved in the study have semi-skilled occupation (trading, farmer, pito brewing, food vendor etc.). Also, the least (4.0%, n = 8) of them are students. This implies that people with semi-skilled occupations in Cape Coast Teaching Hospital are more likely to be infected with HIV/AIDS.

Year of first diagnosis of the condition among HIV/AIDS patients in CCTH

Table 6 shows the year of the first diagnosis of the condition of the respondents.

Table 6: Year of the first diagnosis of the condition of respondents

Year of first diagnosis of the condition	Frequency	Percent
<1990	21	10.6
1991-2000	4	2.0
2001-2010	23	11.6
2011-2020	123	62.1
2021-2023	27	13.6
Total	198	100.0

Source: Field Survey, 2023

Table 6 shows that most (62.1%, n = 123) of the persons living with HIV/AIDS involved in the study have a first diagnosis of their disease between the years 2011 and 2020. Also, the least (2.0%, n = 4) of the respondents have first diagnosis of their disease between the years 1991 and 2000. This shows that more HIV/AIDS infections recorded in CCTH were likely to be reported between the years 2011 and 2020. This implies that more people were engaged in HIV/AIDS risk-related activities in these years, which predisposed them to HIV/AIDS infections.

Analysis of Data on Research Questions

Answering the research questions was important in meeting the objectives of the study. The results from the analysis of the data on the three research questions in the study are presented below.

Research question one

What is the level of quality of life of persons living with HIV/AIDS in Cape Coast Teaching Hospital?

The purpose of this research question was to determine the level of quality of life of persons living with HIV/AIDS involved in the study. The quality of life of persons living with HIV/AIDS involved in the study was measured continuously. Mean and standard deviation were used for analysing the data on this research question. The quality of life of respondents was analysed under five domains, namely, physical health QoL, psychological health QoL, social relations QoL, environmental health QoL, and overall health QoL. With the range (0 - 130) for the Quality-of-life scale, a standard mean of

65.00 was set. Also, with the range (0-10) for overall health QoL, a standard mean of 5.00 was set, (0 - 35) for physical health QoL, a standard mean of 17.50 was set, (0 - 30) for psychological health QoL a standard mean of 15.00 was set, (0 - 15) for social relations QoL, a standard mean of 7.50 was set, and (0 – 40) for environmental health QoL, a standard mean of 20.00 was set. This implies that a mean equal to the standard mean set was considered an average quality of life (Overall health, physical health, psychological health, social relations, and environmental health). Again, a mean above the standard mean set was considered above average quality of life (Overall health, physical health, psychological health, social relations, and environmental health). Additionally, a mean below the standard mean set was considered below average quality of life (Overall health, physical health, psychological health, social relations, and environmental health). The results on the level of quality of life are shown in Table 7.

Table 7: Level of quality of life of persons living with HIV/AIDS involved in the study.

Quality of life	**Range**	**M**	**SD**
Overall Health QoL	0.00 - 10.00	7.55	1.513
Physical Health QoL	0.00 - 35.00	25.14	3.915
Psychological Health QoL	0.00 - 30.00	22.05	3.631
Social Relations QoL	0.00 - 15.00	9.17	2.527
Environmental Health QoL	0.00 - 40.00	29.29	4.205
Overall QoL	0.00 - 130.00	93.20	15.791

Source: Field Survey, 2023 **M** = Mean, **SD** = Standard Deviation, **N** = 198

Table 7 shows that most (M = 93.20, SD = 15.791) of the persons living with HIV/AIDS HIV/AIDS involved in the study have above-average quality of life. Above-average quality of life was found in all the domains of quality of life: Overall health, physical health, psychological health, social relations, and environmental health. This implies that most of the persons living with HIV/AIDS in Cape Coast have a good quality of life irrespective of their condition.

Research question two

What is the level of social support for persons living with HIV/AIDS in Cape Coast Teaching Hospital?

The purpose of research question two was to determine the level of social support among persons living with HIV/AIDS in CCTH. Mean and standard deviation were used for analysing the data on this research question. Social Support of respondents was analysed under three domains namely: significant other, family, and friends. With the range (0 - 84) for social support, a standard mean of 42.00 was set. Also, with the range (0-28) for each domain of social support (significant other, family, and friends), a standard mean of 14.00 was set. This implies that a mean equal to the standard mean set was considered average social support (significant other, family, and friends). Again, a mean above the standard mean set was considered above average social support (significant other, family, and friends). Additionally, a mean below the standard mean set was considered below average social support (significant other, family, and friends). The results on the level of social support are shown in Table 8.

Table 8: Level of social support of persons living with HIV/AIDS HIV/AIDS

Social support	Range	M	SD
Significant Other	0.00 - 28.00	19.39	5.535
Family	0.00 - 28.00	17.10	6.635
Friends	0.00 - 28.00	14.19	7.410
Overall social support	0.00 - 84.00	50.68	19.580

Source: Field Survey, 2023 **M** = Mean, **SD** = Standard Deviation, **N** = 198

Table 8 shows that most (M = 19.39, SD = 5.535) of the persons living with HIV/AIDS involved in the study have above-average social support. Also, most (M = 19.39, SD = 5.535) of the persons living with HIV/AIDS involved in the study have above-average of significant other social support. Moreover, most (M = 17.10, SD = 6635) of the study's participants have above-average family social support. Above average, (M = 14.19, SD = 7.410) social support was also found in the friends' social support domain. This implies that most of the HIV/AIDS patients in Cape Coast Teaching Hospital have good social support. Although the participants reported above-average social support, the mean score obtained on the friends' domain were a little above (*M*=14.19) the set standard (14.00).

Research question three

What is the level of spirituality of persons living with HIV/AIDS in Cape Coast Teaching Hospital?

The purpose of research question three was to determine the level of spirituality among persons living with HIV/AIDS in CCTH. The mean and standard deviation were used for analysing the data on this research question. The spirituality of respondents was analysed under three domains namely: Perennial, respect, and purpose. With the range (0 - 72) for the spirituality scale, a standard mean of 36.00 was set. Also, with the range (0-30) for perennial spirituality, a standard mean of 15.00 was set, (0 - 24) for respect spirituality, a standard mean of 12.00 was set, and (0 - 18) for purpose spirituality, a standard mean of 9.00 was set. This implies that a mean equal to the standard mean set was considered an average spirituality (Perennial, purpose, and respect). Again, a mean above the standard mean set was considered above-average spirituality (Perennial, purpose, and respect). Additionally, a mean below the standard mean set was considered below-average spirituality (Perennial, purpose, and respect). The results on the level of quality of life are shown in Table 9.

Table 9: Level of spirituality of persons living with HIV/AIDS HIV/AIDS

Spirituality	Range	M	SD
Perennial	0.00 - 30.00	24.38	3.709
Respect	0.00 - 24.00	19.88	3.162
Purpose	0.00 - 18.00	13.82	2.828
Overall spirituality	0.00 - 72.00	58.08	9.699

Source: Field Survey, 2023 **M** = Mean, **SD** = Standard Deviation, **N** = 198

Table 9 shows that most (M = 58.08, SD = 9.99) of persons living with HIV/AIDS involved in the study have a high level of spirituality. Also, a high level of spirituality was found in perennial (M = 24.38; SD = 3.709), respect (M = 19.88, SD = 3.162), and purpose (M = 13.82, SD = 2.828). This implies that most HIV/AIDS patients who receive treatment at CCTH have a very high level of spirituality.

Analysis of Data on Research Hypotheses

Three research hypotheses guided this study. This section presents the results from the analysis of these research hypotheses.

Research Hypothesis 1

Ho: Social support will not predict the quality of life of persons living with HIV/AIDS in Cape Coast Teaching Hospital

The purpose of this hypothesis was to establish the significant effect of social support (families, friends, and significant other) on the quality of life (physical health, psychological health, environmental health, overall health, and social relations) of persons living with HIV/AIDS in CCTH. Social support (families, friends, and significant other) are the predictor variables. Quality of life (physical health, psychological health, environmental health, overall health, and social relations) constitutes the criterion or dependent variable. Both the independent variable (IV) and dependent variable (DV) were measured continuously. Looking at the number of IVs and DVs, multivariate linear regression inferential statistics was used for the analysis of this research hypothesis. The multivariate linear regression was used to determine the effects of the IV (families, friends, and significant other) on the difference in the DV (physical health, psychological health, environmental health, overall health, and social relations). The result is shown in Table 10.

Table 10: Effect of Social Support on QoL of persons living with HIV/AIDS in CCTH

Dependent Variable	Parameter	B	SE	t	p
Overall QoL	Intercept	6.996	.406	17.224	.000
	Significant Other	.052	.022	2.381	.018
	Family	-.040	.022	-1.768	.079
	Friends	.016	.019	.825	.410
Physical Health QoL	Intercept	21.689	1.028	21.090	.000
	Significant Other	.123	.055	2.227	.027
	Family	-.019	.057	-.332	.740
	Friends	.098	.048	2.040	.043
Psychological Health QoL	Intercept	19.195	.957	20.065	.000
	Significant Other	.164	.051	3.198	.002
	Family	-.078	.053	-1.484	.139
	Friends	.072	.045	1.598	.112
Social Relations QoL	Intercept	6.129	.531	11.534	.000
	Significant Other	-.026	.028	-.903	.367
	Family	.043	.029	1.475	.142
	Friends	.197	.025	7.909	.000
Environmental Health QoL	Intercept	24.213	1.076	22.497	.000
	Significant Other	.191	.058	3.319	.001
	Family	.001	.059	.018	.986
	Friends	.095	.050	1.887	.061

Source: Field Survey, 2023 **N** = 198

The regression model for overall QoL indicated that having a significant other was a significant positive predictor, *B* = .052, *p* = .018, suggesting that support from a significant other is associated with an increase in overall QoL. Neither family support, *B* = -.040, *p* = .079, nor support from friends, *B* = .016, *p* = .410, significantly predicted overall QoL. For physical health QoL, support from a significant other, *B* = .123, *p* = .027, and friends, *B* = .098, *p* = .043, were significant positive predictors, indicating that these relationships are positively related to physical health QoL. However, family support was not a significant predictor, *B* = -.019, *p* = .740. In the model predicting psychological health QoL, support from a significant other was a significant positive predictor, *B* = .164, *p* = .002. Neither family support, *B* = -.078, *p* = .139, nor support from friends, *B* = .072, *p* = .112, significantly predicted psychological health QoL. The model predicting social relations QoL indicated that support from friends was a significant positive predictor, *B* = .197, p < .001. Neither support from a significant other, *B* = -.026, *p* = .367, nor family support, *B* = .043, *p* = .142, significantly predicted social relations QoL. For environmental health QoL, support from a significant other was a significant positive predictor, *B* = .191, *p* = .001. Neither family support, *B* = .001, *p* = .986, nor support from friends, *B* = .095, *p* = .061, significantly predicted environmental health QoL, although the latter approached significance.

In summary, significant others were consistently found to be important predictors of quality of life across several domains, particularly in overall QoL, physical health QoL, psychological health QoL, and environmental health QoL. Friends also contributed significantly to physical health QoL and social relations QoL. Family support, however, did not emerge as a significant predictor in any domain of QoL.

Research Hypothesis 2

Ho: Spirituality will not predict the quality of life for persons living with HIV/AIDS in Cape Coast Teaching Hospital

The purpose of research hypothesis two was to establish the significant effect of spirituality (perennial, respect, and purpose) on the quality of life (physical health, psychological health, environmental health, overall health, and social relations) of HIV/AIDS patients in CCTH. Spirituality (perennial, respect, and purpose) are the predictor variables. Quality of life (physical health, psychological health, environmental health, overall health, and social relations) constitutes the criterion or dependent variable. Both the IV and DVs were measured continuously. Looking at the number of IVs and the DVs, multivariate linear regression statistics deemed it fit for the analysis of this research hypothesis. The analysis was used to determine the effects of the IVs (perennial, respect, and purpose) on the difference in the DVs (physical health, psychological health, environmental health, overall health, and social relations). The result is shown in Table 11.

Table 11: Effect of Spirituality on Quality of Life of HIV/AIDS Patients in CCTH

Dependent Variable	Parameter	B	SE	t	p
Overall QoL	Intercept	3.245	.684	4.746	.000
	Perennial	.054	.032	1.653	.100
	Respect	-.012	.043	-.275	.784
	Purpose	.234	.045	5.223	.000
Physical Health QoL	Intercept	15.297	1.764	8.670	.000
	Perennial	-.017	.084	-.206	.837
	Respect	.051	.112	.458	.647
	Purpose	.669	.115	5.801	.000
Psychological Health QoL	Intercept	10.907	1.581	6.898	.000
	Perennial	.199	.075	2.653	.009
	Respect	-.124	.100	-1.243	.215
	Purpose	.634	.103	6.131	.000
Social Relations QoL	Intercept	9.226	1.249	7.387	.000
	Perennial	.036	.059	.613	.540
	Respect	-.291	.079	-3.683	.000
	Purpose	.351	.082	4.295	.000
Environmental Health QoL	Intercept	21.171	2.023	10.463	.000
	Perennial	-.119	.096	-1.233	.219
	Respect	.258	.128	2.013	.045
	Purpose	.426	.132	3.217	.002

Source: Field Survey, 2023 **N** = 198

The regression model for overall QoL revealed that purpose was a significant positive predictor, B = .234, p < .001, indicating that having a sense of purpose was associated with higher overall QoL. However, perennial, B = .054, p = .100, and respect, B = -.012, p = .784, did not significantly predict overall QoL. In the model predicting physical health QoL, purpose was a significant positive predictor, B = .669, p < .001, suggesting that a sense of purpose contributed to better physical health QoL. Neither perennial, B = -.017, p = .837, nor respect, B = .051, p = .647, significantly predicted physical health QoL. For psychological health QoL, purpose was again a significant positive predictor, B = .634, p < .001, and perennial was also a significant positive predictor, B = .199, p = .009, indicating both were important for psychological health QoL. However, respect was not a significant predictor, B = -.124, p = .215. The model predicting social relations QoL showed that purpose was a significant positive predictor, B = .351, p < .001, while respect was a significant negative predictor, B = -.291, p < .001, suggesting that a greater sense of respect was associated with lower social relations QoL. Perennial did not significantly predict social relations QoL, B = .036, p = .540. In the environmental health QoL model, both purpose, B = .426, p = .002, and respect, B = .258, p = .045, were significant positive predictors, suggesting that having purpose and feeling respect contributed to better environmental health QoL. Perennial, however, was not a significant predictor, B = -.119, p = .219.

Overall, purpose was a significant predictor across all domains of QoL, positively influencing overall QoL, physical health QoL, psychological health QoL, social relations QoL, and environmental health QoL. Perennial was only significant for psychological health QoL, while respect had mixed effects, being negatively associated with social relations QoL but positively related to environmental health QoL.

Research Hypothesis 3

Ho: There is no significant relationship between social support and spirituality in persons living with HIV/AIDS in Cape Coast Teaching Hospital

The purpose of research hypothesis three was to establish the correlational relationship between social support and spirituality in persons living with HIV/AIDS. Pearson Product Moment Correlation Coefficient was used to examine this relationship. The results from the correlational analysis are shown in Table 12.

Table 12: Correlation between social support and spirituality in persons living with HIV/AIDS

	r	**SS**	**SO**	**Fa**	**Fr**	**S**	**Pe**	**R**	**Pu**
SS	r	1							
SO	r	.698**	1						
Fa	R	.875**	.458**	1					
Fr	R	.855**	.351**	.652**	1				
S	R	-.156*	.104	-.187**	-.246**	1			
Pe	R	-.197**	.037	-.199**	-.274**	.855**	1		
R	R	-.141*	.151*	-.182*	-.255**	.878**	.606**	1	
Pu	r	-.039	.088	-.083	-.075	.820**	.508**	.652**	1

Source: Field Survey, 2023 n = 198 df = 196

Note: ***. Correlation is significant at the 0.01 level (2-tailed), *. Correlation is significant at the 0.05 level (2-tailed).* ***SS*** *(Social Support),* ***SO*** *(Significant Other),* ***Fa*** *(Family),* ***Fr*** *(Friends),* ***S*** *(Spirituality),* ***Pe*** *(Perennial),* ***R*** *(Respect), and* ***Pu*** *(Purpose)*

Table 12 shows the results from the correlation analysis between social support (family, friends, and significant other) and spirituality (perennial, respect, and purpose). The result revealed that there is a statistically significant inverse relationship between spirituality and social support (r (196) = -.156, $p < .05$). Regarding the relationship between spirituality and the domains of social support, the correlation result shows that spirituality has statistical significant inverse relations with family social support (r(196) = -.187, $p < .01$), and friends social support ($r(196) = -.246$, $p < .01$). This implies that spirituality has negative influence on family, and friend social support, and that increase in spirituality reduces family and friend support.

Regarding the relationship between the domains of spirituality and social support, the results show that there is no statistically significant relation between perennial spirituality and significant other social support ($r(196) = .037$, $p > .05$). This implies that perennial spirituality does not influence significant other social support. Additionally, the result shows that perennial spirituality has statistically significant inverse relations with family ($r(196) = -.199$, $p < .01$) and friend social support ($r(196) = -.274$, $p < .01$). This implies that perennial spirituality has a negative influence on families' and friends' social support, and that increase in perennial spirituality reduces families' and friends' social support of persons with HIV/AIDS involved in the study.

The correlational result further shows that respect spirituality has statically significant direct relations with significant other ($r(196) = .151$, $p < .05$), and inverse relations with families' support ($r(196) = -.182$, $p < .05$), and friends' support ($r(196) = -.255$, $p < .01$). This implies that respect spirituality has a direct influence on significant others' support, and that increase in respect spirituality increases significant others' social support.

Finally, the correlational result shows that the purpose spirituality of people living with HIV/AIDS involved in the study has no statistically significant influence on significant others' support ($r(196) = .088$, $p > .05$), families' support ($r(196) = -.083$, $p > .05$), and friends' support ($r(196) = -.075$,

$p > .05$). This implies that purpose spirituality does not influence significant others' social support, families' support, and friends' support.

Modified Conceptual Framework Based on the Findings of the Study

From the findings of the study, the conceptual framework has been adapted to suit the results of the study. The findings of the study revealed that social support has significant relations with quality of life. The findings of the study also revealed that social support from significant other has significant relations with overall health QoL, physical health QoL, psychological health QoL, and environmental health. Significant other social support however has no significant relations with social relations quality of life. Moreover, the finding of the study revealed that the family support has no significant relations with overall health QoL, physical health QoL, psychological health QoL, social relations, and environmental health QoL. Finally, the finding of the study revealed that the friends' social support has no significant relations with overall health QoL, psychological health QoL, and environmental health QoL. Friends' social support however has significant relations with physical health QoL and social relations QoL.

Moreover, spirituality has indirect significant relations with social support. The study also revealed that spirituality has indirect significant relations with family social support and friends' social support. The finding also revealed that perennial spirituality has no significant relations with significant other social support but with significant relations with family, and friend social support. Additionally, the study found that respect spirituality has direct significant relations with significant others social support, and indirect significant relations with families', and friends' social support. Moreover, the finding revealed that purpose spirituality has no significant relations with significant others' social support, families' social support, and friend's social support. The revised conceptual model is displayed in Figure 2.

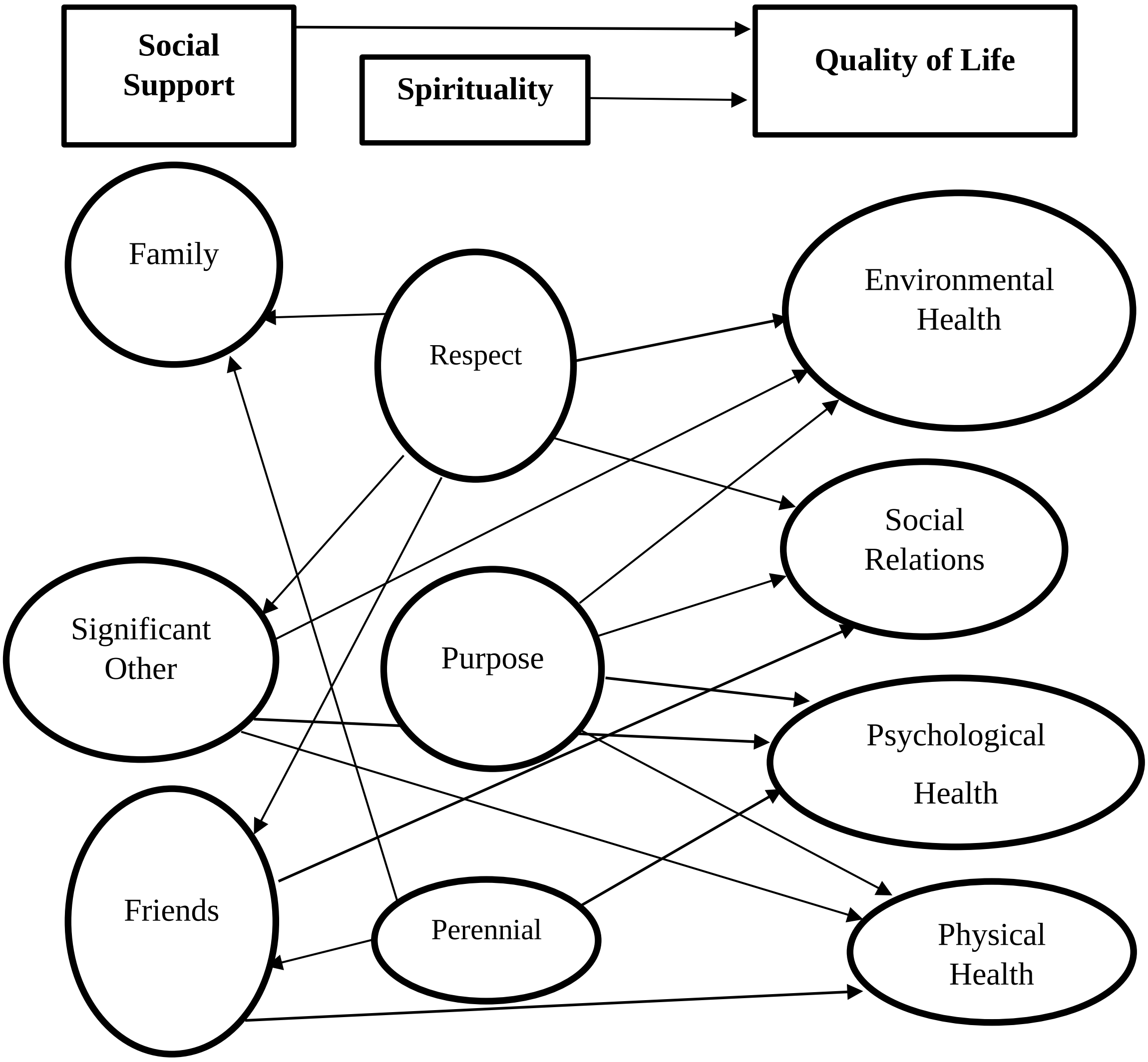

Figure 2: Modified Conceptual Framework: Social Support, Spirituality and Predictors of Quality of Life among People Living with HIV/AIDS

Discussion of Research Findings

The study's results are examined in light of earlier empirical research. The study's conclusions are justified in the discussion, which also identifies areas of agreement and disagreement between the study's results and those of other studies.

Level of Quality of Life of Persons Living with HIV/AIDS in Cape Coast Teaching Hospital.

HIV/AIDS is a highly stigmatised ailment that can lead to experiences of isolation from society, sadness, and delays in seeking medical attention (Anthony et al., 2007; Berger, Ferrans, & Lashley, 2001), as well as the ongoing medical, personal, and social uncertainty that an HIV/AIDS diagnosis may bring (Brashers et al., 2003). Because of these stressors, HIV/AIDS typically produces anxiety, partly because of its connection with illness, stigma, uncertainty, and death. Hence the purpose of this research question was to determine of quality of life of people living with HIV/AIDS in Cape Coast Metropolis in the midst of their condition. In the context of this study, quality of life was measured from a subjective view, because persons living with HIV/AIDS (PLWHA) may have different experiences at a personal level with the social support they receive, which may affect their quality of life. The study revealed that most of the HIV/AIDS patients involved in the study irrespective of their condition, have good quality of life in all domains of QoL: Overall health, physical health, psychological health, social relations, and environmental health QoL.

The introduction of Anti-Retroviral drugs to control HIV/AIDS coupled with public health education on its treatment and prevention has made the disease less infectious. Through public health education, stigma regarding HIV/AIDS patients may have gone down among citizens in Cape Coast, which might have contributed to good social relations, psychological health, and environmental health QoL respectively among the HIV/AIDS patients involved in the study. Additionally, they may have prior experience with antiretroviral medication and had adequate knowledge about treatment, prevention, and coping of the disease through personal search and public health education. This might have contributed to the good quality of life of persons living with HIV/AIDS involved in the study.

Other studies have also confirmed the results of the current study. Quality of life has been found to be high among people living with HIV/AIDS in other jurisdictions. An example is the work by Liping et al. (2015) who explored the quality of life of persons living with HIV/AIDS in China and found that the scores of QOL in physiological, psychological, social relation, and environmental domains were 14.99 ±2.25, 14.25 ±2.12, 13.22 ±2.37, and 13.31 ±1.99 respectively. Hipolito et al. (2017) also explored the quality of life of persons living with HIV/AIDS in Brazil and found that the perception of quality of life was intermediate in all quality of life domains. Again, Yaya et al. (2019) also explored the quality of life of HIV/AIDS patients in Togo and concluded that people living with HIV/AIDS interviewed in the region reported a good overall QOL. In Ghana, Osei-Yeboah et al. (2017) also explored the quality of life of HIV/AIDS patients in the Ho municipality, and found that of 158 HIV-positive respondents, 126 (79.75) and 14 (8.86) presented with excellent and good overall QoL, respectively, whilst 18 (11.39%) had their lives negatively affected by HIV/AIDS.

Contradictory findings have also been reported in some studies. Other studies have found differences in level of quality of life in the domains of quality of life. An example is the study by Santos et al. (2007) who explored the quality of life of people living with HIV/AIDS in São Paulo, Brazil and found that people living with HIV/AIDS have better (physical and psychological) quality of life than other patients but lower quality in social relationships domain. Again, Subramanian et al. (2009) explored the QoL of people living HIV/AIDS in South India and found that patients had the worst QOL in the social domain, indicating that the patient’s social contacts and sexual activity were affected markedly to a great extent. Fatiregun et al. (2009) also explored the QoL of people living HIV/AIDS in Kogi State, Nigeria, and concluded that patients with HIV/AIDS had lower QoL in environment and social relationships domain. The study suggested that stigma and discrimination, as well as poor living conditions, in the PLWHA physical environment, were the cause of lower QOL in the environment and social relationships domain.

Again, the inconsistencies in the findings of this study and that of previous research could be due to contextual variations, differences in the study areas as well as the lack of uniformity in the data collection instruments.

Level of Social Support for Persons Living with HIV/AIDS in Cape Coast Teaching Hospital

People living with HIV/AIDS not only require effective treatment to alleviate their physical discomfort but also require social support to help them solve their life difficulties and relieve their psychological anxiety and uneasiness. They may feel better knowing that there are others around them, who will cheer them up when ill or back them up when threatened. Barth et al. (2010) reported that a significant way of improving the health of individuals infected with HIV/AIDS is to increase one's social support for them. However, due to the stigma and social isolation attached to HIV/AIDS, people suffering from it may face emotional, physical, social and psychological difficulties, which is likely to affect their quality of life. The people have misconception that HIV/AIDS is very contagious and that they may get infected once they get closer to the people living with the disease. Many individuals thus isolate and stigmatise these people living with HIV/AIDS. The disease may also make some people infected with it physically unhealthy to work to finance the cost of controlling the disease. Hence, the purpose of this research question was to explore the level of social support for people living with HIV/AIDS in Cape Coast Metropolis.

Generally, the study revealed that most of the people living with HIV/AIDS in CCTH have high level of social support. Regarding the domains of social support, the study revealed that people living with HIV/AIDS involved in the study have high level of families, friends, and significant others social support. After receiving highly active Anti-Retroviral therapy (HAART), Poorolajal et al. (2016) discovered that people could live for more than ten years. Also, some HIV/AIDS infected individuals may be well to do people who make meaningful life and are highly respected in the society. The public health education and policies against stigma for HIV/AID infected individuals in the recent decades have also reduced the stigma associated with people living with the disease. Since such people with HIV make meaningful life, families, and friends may have increased love for HIV/AIDS patients in recent decades. The aforementioned might have been attributed to good social support for HIV/AIDS patients involved in the study.

Other studies have also confirmed the results of the current study. Social support has been found to be high for people living with HIV/AIDS in other studies. An example is the work by Dalmida et al. (2013) who explored the psychological well-being of people living with HIV/AIDS and the role of religious coping and social support in the Southeastern United States, and concluded that HIV/AIDS patients have a high level of social support and that there were satisfied with the sources of social support.

Contradictory findings have also been reported in some studies. Other studies have found differences in level of social support for people living with HIV/AIDS. An example is the study by Li et al. (2021) who explored the social support status and associated factors among people living with HIV/AIDS in Kunming city, China, and concluded that HIV/AIDS infected individuals participated in the study generally have low social support. The result of the current study was also inconsistent with the results of Guo et al. (2015), who found that the social support level among people living with HIV/AIDS was relatively low.

Again, the inconsistencies in this study's findings and those of previous research could be due to contextual variations, differences in the study areas, and the lack of uniformity in the data collection instruments.

Level of Spirituality of Persons Living with HIV/AIDS in Cape Coast Teaching Hospital.

HIV/AIDS infected individuals do not only need medication, but both social and spiritual support. Spirituality is an integral component of well-being and can serve as a barrier to wellness as well as a protective factor from ill health. Hence the purpose of this research question is to determine the level of spirituality of people living with HIV/AIDS. The study found that generally most of the HIV/AIDS infected people in Cape Coast Teaching hospital has high level of spirituality. Regarding the domains of spirituality, the study found that most of the people living with HIV/AIDS involved in the study have high level of spirituality.

After receiving an HIV/AIDS diagnosis, people consider their spirituality by drawing on their concept of God and earlier religious and spiritual experiences as a coping mechanism (Jacobson et al., 2006; Tarakeshwar et al., 2006). HIV/AIDS patients may have confidence in God as well as in medical treatment to completely heal their disease. They may take seriously spiritual concerns like prayer, the reading and medication of religious literature, and religious counselling because they have confidence in God to heal them. Participants held that the key spiritual/religious tools for connecting with God were prayer, meditation, frequent church attendance, and religious activities. They had a deep faith in God's ability to heal them of HIV/AIDS and improve their health. They were able to deal with HIV/AIDS thanks to spiritual/religious resources like prayer, meditation, church services, religious activities, and faith in the power of God. The aforementioned might have contributed to high level of spirituality among HIV/AIDS patients involved in the study.

Other studies have also confirmed the results of the current study. Spirituality has been found to be high for people living with HIV/AIDS in other studies. An example is the work by Pinho et al. (2017) who investigated the level of spirituality of persons living with HIV/AIDS in Brazil, and found that the sample presented high indices of organizational religiosity, non-organizational religiosity, and intrinsic religiosity. Again, Sulung and Asyura (2019) investigated the level of spirituality among persons living with HIV/AIDS, and concluded that the people had higher levels of spirituality and recommended that patients should get motivated and develop aspects of spirituality so that it can help to ease the process of self-acceptance, such as getting closer to God through prayer, reading and fasting, etc. Moreover, Arrey et al. (2016) explored the spirituality of persons living with HIV/AIDS in Belgium and found that a majority reported being more spiritual/religious since being diagnosed as HIV positive. In research by Ironson, Stuetzle, and Fletcher (2006), 45% of the participants indicated that receiving an HIV diagnosis had increased their sense of spirituality.

Based on the similarities between the above findings and the findings of the current study, the researcher can conclude that diagnoses of HIV/AIDS in individuals elicit a high level of spirituality in them.

Influence of Social Support on the Quality of Life of Persons Living with HIV/AIDS

Disease may be associated with social isolation instead of the degree of social integration (Coulson & Greenwood, 2012). Social isolation may cause stress, which can result in poorer effects, 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 (Coulson & Greenwood, 2012). HIV/AIDS infected people are perceived to experience social isolation and stigma, which is likely to affect their psychological and other domain of quality of life. Hence, the purpose of this hypothesis was to establish the influence of social support on QoL of people living with HIV/AIDS. Generally, the study found that social support from significant other is a significant predictor of overall health QoL, physical health QoL, psychological health QoL, and environmental health. However, significant other social support has no influence on social relations quality of life. Moreover, the study found that the family support is not significant predictor of overall health QoL, physical health QoL, psychological health QoL, social relations, and environmental health QoL. Finally, the study found that the friends' social support is not significant predictor of overall health QoL, psychological health QoL, and environmental health QoL. However, friends' social support is a significant predictor of physical health QoL and social relations QoL.

This implies that, HIV/AIDS infected people with high level of support from friends are more likely to have good physical health and social relations QoL. Graham and Barnow (2013) reported that social support allows people to appraise a stressor as less threatening and allows them to cope with it better. Social support given to HIV/AIDS-infected people may influence them to be less likely to engage in health-threatening behaviours. They may be less threatened by their stress and therefore feel less need to smoke, or they may be encouraged by friends and family and helped to give up cigarettes.

Additionally, the availability of Anti-Retroviral (ARV) medications, the accessibility of healthcare facilities to meet the needs of people living with HIV/AIDS, government policies, and social support from the community are just a few examples of environmental factors that may have an impact on how well people with HIV/AIDS are able to maintain their environmental health. HIV/AIDS infected individuals may receive counselling from significant others such as nurses, health educators and religious leaders to utilise the service available to them in the environment. This is emphasised in a study by Ansah (2017) who reported that social support is a key factor in the advice on medication, mental well-being and physical well-being with the rippling effect of enhancing the quality of life of people living with HIV/AIDS. The aforementioned might have contributed to high effect of significant others' social support on environmental health QoL of people with HIV/AIDS in the study.

Moreover, the social support provided to people living with HIV/AIDS in the study may have little bearing on how well they live. Despite, high level of social support reported in the study, the HIV/AIDS patients in the study may have given up on the help of their family members because some of them could act as though they are loving. Additionally, some HIV/AIDS patients may be prosperous individuals who require little assistance. As a result, there is no correlation between family support and life quality. This might have contributed to insignificant effect of family support on quality of life of people living with HIV/AIDS involved in the study.

As well, some of the HIV/AIDS infected people involved in the study may be highly stressed by their condition to the extent that they may not notice the significant effect of the support by friends on their lives. Also, there are certain environmental factors that are beyond the scope of influence by friends, families and significant others. Such environmental support factors include provision of health facilities that provide services to HIV/AIDS infected people, and availability of antiretroviral medication may not be the responsibility of families, friends, and significant others. The aforementioned might contribute to insignificant relations among friends' support, psychological health, environmental health and overall health QoL.

Other studies have also confirmed the results of the current study. Social support has been found to have a significant influence on the QoL of people living with HIV/AIDS in other studies. An example is the work by Park et al. (2016) in a Western society, who found that social support is associated with improved outcomes and improved survival in a disease such as HIV/AIDS. Again, Subramanian et al. (2021) showed that there was a positive relationship between perceived social support and quality of life among HIV patients. Moreover, Yadav (2010), revealed a positive relationship between perceived social support and the quality of life of PLWHA. Also, Birore et al. (2022) study among people living with HIV/AIDS in Ghana revealed that social support, especially affectionate support, was positively associated with a higher level of QoL among people living with HIV/AIDS. Also, Shrestha et al. (2019) and Li et al. (2017) studies among people living with HIV/AIDS in India and China respectively found significant relations between social support and quality of life of people living with HIV/AIDS.

Influence of Spirituality on Quality of Life of Persons Living with HIV/AIDS

Spirituality plays a crucial role in the lives of people with chronic illnesses like HIV because it helps them cope with the particular existential problems brought on by their diagnosis and treatment. Spirituality can serve as a barrier to the quality of life of HIV/AIDS-infected people as well as a protective factor from their disease. Hence, the purpose of the study was to establish the significant effect of spirituality on the quality of life of people living with HIV/AIDS. Generally, the study found that perennial spirituality has no significant influence on overall health QoL, physical health QoL, social relations QoL, and environmental health QoL. However, perennial spirituality has significant influence on psychological health QoL. The study also found that respect spirituality has statistical influence on social relations QoL, and environmental health QoL. Respect spirituality, however, has no significant influence on overall health QoL, physical health, and psychological health QoL. The study also found that purpose spirituality has significant influence on overall health QoL, physical health QoL, psychological health QoL, social relations QoL, and environmental health QoL.

People with AIDS may experience feelings of shame related to the illness, such as guilt, fear, anxiety, sadness, and suicidal thoughts (Chambers et al., 2015). However, religiosity and spirituality may provide some support for the disease's apparent vulnerability (Ferreira et al., 2012; Caixeta et al., 2012), enhancing their quality of life (Da Cruz et al., 2017). Higher levels of spirituality have been linked to improved health and more energy (Ramer et al., 2006), decreased psychological distress (Simoni et al., 2002), decreased depression (Coleman, 2004; Simoni & Ortiz, 2003), improved mental well-being (Braxton et al., 2007; Coleman, 2004), improved cognitive and social functioning, and decreased HIV symptoms (Coleman, 2004).

Other studies have also confirmed the results of the current study. Spirituality has been found to have a significant influence on the QoL of people living with HIV/AIDS in other studies. An example is the work by Zarei and Joulaei (2018), who investigated the association between spirituality and the quality of life of persons living with HIV/AIDS in Iran and found that there was a significant correlation between the quality of life and spiritual beliefs. Again, Counted et al. (2018) investigated spirituality and quality of life through a systematic review from 2007 to 2017 and found that of the 20 studies that were analysed, twelve (60%) reported a positive association between relational spirituality and QoL, three (15%) studies reported inverse associations, whereas five (25%) studies showed evidence of a lack of association (with two out of the five studies showing an indirect association). Moreover, Pargament et al. (2004) found in their study that after adjusting for variables like age and HIV symptoms, spirituality was the only predictor that predicted health and well-being outcomes in people with HIV/AIDS, such as improvements in life satisfaction, functional health status, as well as health-related quality of life. The study concluded that relational spirituality appears to be associated with health benefits as indicated across QoL domains.

Relationship between Social Support and Spirituality in Persons Living with HIV/AIDS in Cape Coast Teaching Hospital.

The use of spirituality in creating social support networks has been demonstrated to be a method for assisting people living with HIV and lowering experiences of social isolation and encounters with stigma (Dalmida et al., 2012). According to Howsepian and Merluzzi (2009), spirituality is typically portrayed as a source of support or a perception of support from others. Thus, the purpose of this research hypothesis was to establish the relationship between spirituality and social support. Generally, the study revealed that spirituality has an indirect influence on social support. Regarding the relationship between the domains of spirituality and social support, the study found that spirituality has indirect influence on family social support, and friend social support. The study also found that perennial spirituality has no relations with significant other social support but has significant relations with family, and friend social support. Additionally, the study found that respect spirituality has direct influence on significant others social support, and indirect influence on families, and friends social support. Moreover, the study found that purpose spirituality has no influence on significant others social support, families social support, and friends social support.

People who are more spiritual may isolate themselves from family and friends and commune with their deity for relief. People with HIV/AIDS who hold a high regard for spirituality may have significant others, such as religious leaders, from whom they seek comfort in their eagerness for spiritual intervention for deliverance. The aforementioned might have contributed to the direct influence of respect spirituality on significant others' support, but inverse relations with families' and friends' social support among HIV/AIDS infected people involved in the study. Moreover, some of the HIV/AIDS study participants who have a high level of purpose spirituality would have a firm belief in their God and would desire to be with them. As a result, they could avoid social interaction and refuse assistance from others. The aforementioned could be a factor in the statistically insignificant relationships between purpose spirituality and social support from significant others, families, and friends.

This result is in congruence with some studies which also found a significant association between spirituality and social support. An example is the work by Tuck et al. (2001), who found that spirituality and religious coping have been positively correlated with improved quality of life, more social support, and more successful coping. Again, Simoni et al. (2006) discovered a positive correlation between spirituality and the frequency of social support and psychological adjustment for those living with HIV.

Additionally, Kalomo et al. (2021) explored the role of social support and spirituality on depressive symptoms among older adults with HIV in Namibia and found that spirituality has positive relations with social support from neighbours ($p < 0.05$), and families ($p < 0.001$), but with statistical influence on social support from friends ($p = 0.14$).

Contrary to the findings, Tarakeshwar et al. (2005) examined gender, ethnicity and spiritual coping among bereaved HIV-positive individuals and found that spiritual coping was not influenced by perceived social support. Again, the inconsistencies in the findings of this study and that of previous research could be due to contextual variations, differences in the study areas as well as the lack of uniformity in the data collection instruments.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The study's results, conclusions, and recommendations of the study are all summarised in this chapter, along with suggestions for further study. The chapter thus concentrates on the significance of the study's findings for developing policies and conducting additional research. Based on the study's main results and key findings, recommendations were made. The purpose of the study was to examine the spirituality, social support and quality of life of HIV/AIDS patients. The study was based on the following six objectives in order to accomplish this purpose:

1. To examine the quality of life of persons living with HIV/AIDS
2. To examine the level of spirituality of persons living with HIV/AIDS
3. To establish the level of social support for persons living with HIV/AIDS
4. To examine the relationship between social support and the quality of life of persons living with HIV/AIDS
5. To examine the relationship between spirituality and the quality of life of persons living with HIV/AIDS
6. To examine the relationship between social support and spirituality of persons living with HIV/AIDS

Descriptive quantitative research design was used in the study. The accessible population was 3000 number of individuals with HIV/AIDS receiving treatment at the Cape Coast Teaching Hospital. A sample size of 196 was determined using Krejcie and Morgan (1970). The study made use of convenience sampling technique to select 198 individuals with HIV/AIDS at the Cape Coast Teaching Hospital. The study adopted Multidimensional Scale of Perceived Social Support (MSPSS-12) scale, Spirituality Scale (SS-12), and WHOQOL-BREF questionnaire (WHO, 1996; Cheung et al., 2019) to measure social support, spirituality, and quality of life respectively. Pre-testing of the instrument was done and reliability and validity were ensured with the Cronbach alpha value above 0.77 indicating that the scales were reliable. Ethical consideration was also ensured before the actual data collection. The data collected were analysed using descriptive statistics (frequencies and percentages, means and standard deviation) and inferential statistics (Pearson Product Moment Correlation Coefficient and multivariate regression).

Key Findings

Level of Quality of Life of Persons Living with HIV/AIDS in Cape Coast Teaching Hospital.

Based on the results of the study, it was found that, generally, most of the HIV/AIDS-infected individuals involved in the study have good overall health, physical health, psychological health, social relations, and environmental health quality of life, respectively.

Level of Social Support for Persons Living with HIV/AIDS in Cape Coast Teaching Hospital

The findings of the study also revealed that most of the people living with HIV/AIDS have high levels of perennial, respect, and purpose domains of spirituality. But the level of the perennial domain of spirituality was better relative to the other domains.

Level of Spirituality of Persons Living with HIV/AIDS in Cape Coast Teaching Hospital.

Again, it was revealed that most of the HIV/AIDS-infected individuals have high levels of families, friends, and significant others domains of social support. However, the level of support from a significant other was better relative to the other domains.

Influence of Social Support on the Quality of Life of Persons Living with HIV/AIDS

Furthermore, the study revealed from the study that social support from a significant other is a significant predictor of overall health QoL, physical health QoL, psychological health QoL, and environmental health. However, social support from a significant other is not a significant predictor of social relations and quality of life. Moreover, the study found that social support from families is not a significant predictor of overall health QoL, physical health QoL, psychological health QoL, social relations, and environmental health QoL. Finally, the study revealed that social support from friends is not a significant predictor of overall health QoL, psychological health QoL, and environmental health QoL. However social support from friends is a significant predictor of physical health QoL and social relations QoL.

Influence of Spirituality on Quality of Life of Persons Living with HIV/AIDS

Additionally, the study revealed that perennial spirituality is not a significant predictor of overall health QoL, physical health QoL, social relations QoL, and environmental health QoL. However, perennial spirituality is significant predictor of psychological health QoL. The study also revealed that respect spirituality is a significant predictor of social relations QoL, and environmental health QoL. Respect spirituality is not significant predictor of overall health QoL, physical health, and psychological health QoL. Again, the study revealed that purpose spirituality is a significant predictor of overall health QoL, physical health QoL, psychological health QoL, social relations QoL, and environmental health QoL.

Relationship between Social Support and Spirituality in Persons Living with HIV/AIDS in Cape Coast Teaching Hospital

Finally, it was also revealed from the study that spirituality has indirect relations with social support. Also, the study revealed that spirituality has indirect influence on family social support and friends' social support. The study also found that perennial spirituality has no significant relations with significant other social support. Perennial spirituality however has significant relations with family, and friend social support. Additionally, the study revealed that respect spirituality has direct relations with significant others' social support, and indirect relations with families', and friends' social support. Moreover, the study revealed that purpose spirituality has no significant relations with significant others' social support, families' social support, and friend's social support.

Conclusions

Based on the findings of the study, the following can be concluded:

First, persons living with HIV/AIDS in Cape Coast Metropolis have good quality of life. They may have received information on how to handle and manage the condition. Due to recent public education efforts, those living with HIV/AIDS in the Metropolis may now enjoy better social support and experience less stigma from close friends and family.

Second, persons living with HIV/AIDS in the metropolis have high level of social support. The public health education and policies may have reduced the stigma associated with people living with the disease. Also, families, friends, and significant others may have increased love for people living with HIV/AIDS due to the meaningful life some of them make in families and community, which makes most people living with HIV/AIDS in the Metropolis to have high level of social support.

Third, persons living with HIV/AIDS in the Metropolis have high level of spirituality. After receiving an HIV/AIDS diagnosis, the people might have considered their spirituality by drawing on their conception of God and earlier religious and spiritual experiences as a coping mechanism.

Fourth, social support is a significant predictor of quality of life (overall health QoL, physical health QoL, psychological health QoL, social relations, and environmental health) of people living with HIV/AIDS in the metropolis. Social support given to the HIV/AIDS infected people may influence them to be less likely to engage in health-threatening behaviours. They may be less threatened by their stress and therefore feel less need to smoke, or they may be encouraged by friends and family and helped to give up cigarettes.

Fifth, spirituality is a significant predictor of quality of life (overall health QoL, physical health QoL, psychological health QoL, social relations, and environmental health) of people living with HIV/AIDS in the Metropolis.

Religiosity and spirituality may provide some support for the disease's apparent vulnerability, enhancing their quality of life.

Sixth, spirituality has indirect influence on social support. People who are more spiritual may isolate themselves from family and friends and commune with their deity for relief. People with HIV/AIDS who hold a high regard for spirituality may have significant others, such as religious leaders, from whom they seek comfort in their eagerness for spiritual intervention for deliverance.

Recommendations

The following recommendations were made in light of the findings and conclusions drawn from the study:

1. To help persons living with HIV/AIDS lead more normal lives, reduce their uncomfortable symptoms, and improve their overall quality of life, timely, appropriate, and focused interventions should be made in regard to the physical, psychological, social, and environmental aspects of their lives.

2. Helping professional counsellors should create evidence-based intervention that address the personal and psychosocial issues that affect HIV/AIDS patients.
3. The development of spirituality, such as becoming closer to God via prayer, reading, fasting, and other means, should be encouraged in HIV/AIDS patients by healthcare professionals, families, and intimate relationships in order to facilitate the process of self-acceptance.
4. Healthcare workers should create social support networks to provide social support, and problem-focused coping interventions should be

employed as an empowering strategy to improve quality of life for HIV/AIDS patients.

5. Additionally, in order to improve the quality of life for those living with HIV/AIDS, the Ministry of Information, the Ghana Health Service, the Media, and NGO's should develop appropriate information, education, and communication materials to raise public awareness of the disease and educate the public about social isolation and stigma associated with HIV/AIDS.

Suggestions for Further Research

Further study should be conducted that makes use of Mixed Method Research Approach to explore the influence of spirituality and social support on quality of life of people living with HIV/AIDS.

Also, a comparative study of two teaching hospitals may be considered by different researchers.

REFERENCES

Abbott, M. L., & McKinney, J. (2013). *Understanding and applying research design*. New Jersey: John Wiley & Sons.

Abraham, S., Venu, A., Ramachandran, A., Chandran, P. M., & Raman, S. (2012). Assessment of quality of life in patients on hemodialysis and the impact of counselling. *Saudi Journal of Kidney Diseases and Transplantation, 23*(5), 953-957.

Abrefa-Gyan, T., Cornelius, L. J., & Okundaye, J. (2016). Socio-demographic factors, social support, quality of life, and HIV/AIDS in Ghana. *Journal of Evidence-informed Social Work*, *13*(2), 206-216.

Adedimeji, A., Abboud, N., Merdekios, B., & Shiferaw, M. (2012). A qualitative study of barriers to the effectiveness of interventions to prevent mother-to-child transmission of HIV in Arba Minch, Ethiopia. New York: Hindawi Publishing Corporation. *International Journal of Population Research, 2*(7)

Adepoju, P. (2019). Fighting HIV/AIDS from Ghana's pulpits. *The Lancet HIV*, *6*(9), e573.

Aizire, J., G., Fowler, M., M., & Coovadia, H. (2013). Operational issues and barriers to implementation of prevention of mother-to-child transmission of HIV (PMTCT) interventions in Sub-Saharan Africa. *Current HIV Research*, *11*(2), 144-159.

Ajzen, I. (1985). From intentions to actions: A theory of planned behaviour. In *Action control: From cognition to behaviour* (pp. 11-39). Berlin, Heidelberg: Springer Berlin Heidelberg.

Ajzen, I., & Fishbein, M. (1988). Theory of reasoned action-Theory of planned behavior. *University of South Florida*, *2007*, 67-98.

Aknin, L. B., Sandstrom, G. M., Dunn, E. W., & Norton, M. I. (2011). It's the recipient that counts: Spending money on strong social ties leads to greater happiness than spending on weak social ties. *PLoS one*, *6*(2), e17018.

Alvi, M. (2016). A manual for selecting sampling techniques in research. University of Karachi, Iqra University

Anakwa, N. O., Teye-Kwadjo, E., & Kretchy, I. A. (2021). Effect of HIV-related stigma and HIV-related stress on HIV disclosure concerns: A study of HIV-positive persons on antiretroviral therapy at two urban hospitals in Ghana. *Applied Research in Quality of Life*, *16*(3), 1249-1264.

Ansah, H. (2017). *Perceived social support and its effects on quality of Life among people living with HIV/AIDS in Kumasi Metropolis* (Doctoral dissertation, University of Cape Coast). Unpublished

Anthony, D. B., Holmes, J. G., & Wood, J. V. (2007). Social acceptance and self-esteem: tuning the sociometer to interpersonal value. *Journal of Personality and Social Psychology*, *92*(6), 1024.

Arrey, A. E., Bilsen, J., Lacor, P., & Deschepper, R. (2016). Spirituality/religiosity: A cultural and psychological resource among Sub-Saharan African migrant women with HIV/AIDS in Belgium. *Plo S One*, *11*(7), e0159488.

Asante, J. S. (2013). *Knowledge, attitude and practices of HIV counsellors in HIV counselling and testing in the central region of Ghana* (Doctoral dissertation, University of Cape Coast). Unpublished.

Asante, K. O. (2012). Social support and the psychological well-being of people living with HIV/AIDS in Ghana. *African Journal of Psychiatry*, *15*(5), 340-345.

Ashida, S., & Heaney, C. A. (2008). Differential associations of social support and social connectedness with structural features of social networks and the health status of older adults. *Journal of Ageing and Health*, *20*(7), 872-893.

Asobayire, A., & Barley, R. (2015). Women's cultural perceptions and attitudes towards breast cancer: Northern Ghana. *Health Promotion International*, *30*(3), 647-657.

Babbie, E. R. (2010). *The Practice of Social Research* (12th ed.). Belmont, CA: Wadsworth.

Barth, J., Schneider, S., & Von Känel, R. (2010). Lack of social support in the aetiology and the prognosis of coronary heart disease: A systematic review and meta-analysis. *Psychosomatic Medicine*, *72*(3), 229-238.

Basavaraj, K. H., Navya, M. A., & Rashmi, R. (2010). Quality of life in HIV/AIDS. *Indian Journal of Sexually Transmitted Diseases and AIDS*, *31*(2), 75.

Berger, B. E., Ferrans, C. E., & Lashley, F. R. (2001). Measuring stigma in people with HIV: Psychometric assessment of the HIV stigma scale. *Research in Nursing & Health*, *24*(6), 518-529.

Berghmans, B. (2018). Physiotherapy for pelvic pain and female sexual dysfunction: an untapped resource. *International Urogynecology Journal*, *29*(5), 631-638.

Bhatoa, P. K., Sharma, D., & Kumar, R. (2013). HIV/AIDS: A life-threatening disease. *The Pharma Innovation*, *2*(2).

Birore, C. M., Wu, L., Abrefa-Gyan, T., & Lewis, M. W. (2022). Social Support and Quality of Life Among People Living With HIV/AIDS (PLWHA) in Ghana. *Journal of Family Issues*, *43*(8), 2159-2180.

Bissell, P., May, C. R., & Noyce, P. R. (2004). From compliance to concordance: Barriers to accomplishing a re-framed model of health care interactions. *Social Science & Medicine*, *58*(4), 851-862.

Bolla, C. R., Rao, A. R., Dudala, S. R., & Ravikumar, B. P. (2013). Knowledge regarding HIV/AIDS among secondary school students in Khammam town, Andhra Pradesh. *Int J Res Dev Health*, *1*(3), 103-8.

Brady, M. J., Peterman, A. H., Fitchett, G., Mo, M., & Cella, D. (1999). A case for including spirituality in quality-of-life measurement in oncology. *Psycho-Oncology: Journal of the Psychological, Social and Behavioural Dimensions of Cancer*, *8*(5), 417-428.

Brashers, D. E., Neidig, J. L., Russell, J. A., Cardillo, L. W., Haas, S. M., Dobbs, L. K., ... & Nemeth, S. (2003). The medical, personal, and social causes of uncertainty in HIV illness. *Issues in Mental Health Nursing*, *24*(5), 497-522.

Braxton, N. D., Lang, D. L., Sales, J. M., Wingood, G. M., & DiClemente, R. J. (2007). The role of spirituality in sustaining the psychological well-being of HIV-positive black women. *Women & Health*, *46*(2-3), 113-129.

Bryman, A. (2016). *Social research methods*. USA Oxford University Press.

Burckhardt, C. S., Woods, S. L., Schultz, A. A., & Ziebarth, D. M. (1989). Quality of life of adults with chronic illness: a psychometric study. *Research in Nursing & Health*, *12*(6), 347-354.

Caixeta, E. S., Machado, M. F., Ripamonte, P., Price, C., & Buratini, J. (2013). Effects of FSH on the expression of receptors for oocyte-secreted factors and members of the EGF-like family during in vitro maturation in cattle. *Reproduction, Fertility and Development*, *25*(6), 890-899.

Canda, E. R., Furman, L. D., & Canda, H. J. (2019). *Spiritual diversity in social work practice: The heart of helping*. USA, Oxford University Press.

Carpenter, C. J. (2010). A meta-analysis of the effectiveness of health belief model variables in predicting behaviour. *Health Communication*, *25*(8), 661-669.

Chambers, L. A., Rueda, S., Baker, D. N., Wilson, M. G., Deutsch, R., Raeifar, E., ... & Team, T. S. R. (2015). Stigma, HIV and health: A qualitative synthesis. *BMC Public Health*, *15*, 1-17.

Champion, V. L., & Skinner, C. S. (2008). The health belief model. *Health Behaviour and Health Education: Theory, Research, and Practice*, *4*, 45-65.

Chesser, S., Porter, M. M., & Tuckett, A. G. (2020). Cultivating citizen science for all: Ethical considerations for research projects involving diverse and marginalized populations. *International Journal of Social Research Methodology*, *23*(5), 497-508.

Cheung, Y. B., Yeo, K. K., Chong, K. J., Khoo, E. Y. H., & Wee, H. L. (2019). Measurement equivalence of the English, Chinese and Malay versions of the World Health Organization Quality of Life (WHOQOL-BREF) questionnaires. *Health and quality of life outcomes*, *17*(1), 1-6.

Chou, P. H. B., & Wister, A. V. (2005). From cues to action: Information seeking and exercise self-care among older adults managing chronic illness. *Canadian Journal on Aging/La Revue Canadienne Du Vieillissement*, *24*(4), 395-408.

Chukwuorji, J. C., Chukwu, C. V., Uzuegbu, C. N., Ifeagwazi, C. M., & Ugwu, C. (2020). Social support serves an emotion regulation function in death anxiety among people living with HIV/AIDS. *South African Journal of Psychology*, *50*(3), 395-410.

Cicirelli, V. G. (2011). Religious and nonreligious spirituality about death acceptance or rejection. *Death Studies*, *35*(2), 124-146.

Clegg-Lamptey, J. N. A., & Amponsah, G. (2010). Laparoscopic cholecystectomy at the Korle Bu Teaching Hospital, Accra, Ghana: An initial report. *West African Journal of Medicine*, *29*(2).

Cohen, A. (2007). Commitment before and after: An evaluation and reconceptualization of organizational commitment. *Human Resource Management Review*, *17*(3), 336-354.

Cohen, M. S., Gay, C. L., Busch, M. P., & Hecht, F. M. (2010). The detection of acute HIV infection. *The Journal of Infectious Diseases*, *202*(Supplement_2), S270-S277.

Cohen, M. S., Smith, M. K., Muessig, K. E., Hallett, T. B., Powers, K. A., & Kashuba, A. D. (2013). Antiretroviral treatment of HIV-1 prevents transmission of HIV-1: Where do we go from here? *The Lancet*, *382*(9903), 1515-1524.

Coleman, R. E. (2004). Bisphosphonates: Clinical experience. *The oncologist*, *9*(S4), 14-27.

Conner, M. (2010). Cognitive determinants of health behaviour. In *Handbook of Behavioural Medicine* (pp. 19-30). Springer, New York, NY.

Contractor, A. A., Weiss, N. H., Kearns, N. T., Caldas, S. V., & Dixon-Gordon, K. L. (2020). Assessment of posttraumatic stress disorder’s E2 criterion: Development, pilot testing, and validation of the Posttrauma Risky

Behaviors Questionnaire. *International Journal of Stress Management, 27*(3), 292.

Corry, M., Porter, S., & McKenna, H. (2019). The redundancy of positivism as a paradigm for nursing research. *Nursing Philosophy, 20*(1), e12230.

Coulson, N. S., & Greenwood, N. (2012). Families affected by childhood cancer: An analysis of the provision of social support within online support groups. *Child: Care, Health and Development*, *38*(6), 870-877.

Counted, V., Possamai, A., & Meade, T. (2018). Relational spirituality and quality of life 2007 to 2017: An integrative research review. *Health and Quality of Life Outcomes, 16*(1), 1-18.

Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approach*. North America, Sage publications.

Da Cruz, J. N., Ortega, E. M., Cordeiro, G. M., Suzuki, A. K., & Mialhe, F. L. (2017). Bivariate odd-log-logistic-Weibull regression model for oral health-related quality of life. *Communications for Statistical Applications and Methods*, *24*(3), 271-290

Dako-Gyeke, M., Dako-Gyeke, P., & Asampong, E. (2015). Experiences of stigmatization and discrimination in accessing health services: voices of persons living with HIV in Ghana. *Social Work in Health Care*, *54*(3), 269-285.

Dalmida, S. G., Holstad, M. M., DiIorio, C., & Laderman, G. (2012). The meaning and use of spirituality among African American women living with HIV/AIDS. *Western Journal of Nursing Research*, *34*(6), 736-765.

Dalmida, S. G., Koenig, H. G., Holstad, M. M., & Wirani, M. M. (2013). The psychological well-being of people living with HIV/AIDS and the role of religious coping and social support. *The International Journal of Psychiatry in Medicine*, *46*(1), 57-83.

Deeks, S. G., Overbaugh, J., Phillips, A., & Buchbinder, S. (2015). HIV infection. *Nature reviews Disease primers*, *1*(1), 1-22.

Delaney, D. (2015). Legal Geography I: Constitutivities, complexities, and contingencies. *Progress in Human Geography*, *39*(1), 96-102.

DePoy, E., & Gitlin, L. N. (2019). *Introduction to research E-book: understanding and applying multiple strategies*. USA: Elsevier Health Sciences.

DiMatteo, M. R., Haskard, K. B., & Williams, S. L. (2007). Health beliefs, disease severity, and patient adherence: a meta-analysis. *Medical Care*, 521-528.

Dlamini-Simelane, T. T., & Moyer, E. (2017). Lost to follow up: rethinking delayed and interrupted HIV treatment among married Swazi women. *Health Policy and Planning*, *32*(2), 248-256.

Dowling, A. S. (2005). George Engel, MD (1913–1999). *American Journal of Psychiatry*, *162*(11), 2039-2039.

Edwards, L., Bretherton, R., Gresswell, D. M., & Sabin-Farrell, R. (2022). Psychological distress, coping, and barriers to help-seeking in Christian clergy. *Mental Health, Religion & Culture*, 1-18.

Edwards, S. D. (2012). Standardization of a spirituality scale with a South African sample. *Journal of Psychology in Africa*, *22*(4), 649-653.

Engel, G. L. (1977). The need for a new medical model: A challenge for biomedicine. *Science*, *196*(4286), 129-136.

Etikan, I., & Babtope, O. (2019). A basic approach to sampling methodology and sample size calculation. *Med Life Clin*, *1*(2), 1006.

Fatiregun, A. A., Mofolorunsho, K. C., & Osagbemi, K. G. (2009). Quality of life of people living with HIV/AIDS in Kogi State, Nigeria. *Benin Journal of Postgraduate Medicine*, *11*(1).

Feeney, B. C., & Collins, N. L. (2015). A new look at social support: A theoretical perspective on thriving through relationships. *Personality and Social Psychology Review*, *19*(2), 113-147.

Ferrans, C. E., Zerwic, J. J., Wilbur, J. E., & Larson, J. L. (2005). Conceptual model of health-related quality of life. *Journal of Nursing Scholarship*, *37*(4), 336-342.

Ferreira, J. J., Raposo, M. L., Rodrigues, R. G., Dinis, A., & Do Paco, A. (2012). A model of entrepreneurial intention: An application of the psychological and behavioural approaches. *Journal of Small Business and Enterprise Development*, *19*(3), 424-440.

Flickinger, T. E., DeBolt, C., Waldman, A. L., Reynolds, G., Cohn, W. F., Beach, M. C., & Dillingham, R. (2017). Social support in a virtual community: Analysis of a clinic-affiliated online support group for persons living with HIV/AIDS. *AIDS and Behaviour*, *21*(11), 3087-3099.

Folkman, S., & Lazarus, R. S. (1988). Coping as a mediator of emotion. *Journal of Personality and Social Psychology*, *54*(3), 466.

Folkman, S., Chesney, M., Collette, L., Boccellari, A., & Cooke, M. (1996). Post-bereavement depressive mood and its pre-bereavement predictors in HIV+ and HIV–gay men. *Journal of Personality and Social Psychology*, *70*(2), 336.

Fraenkel, J. R., & Wallen, N. E. (2003). Observation and interviewing. How to Design and Evaluate Research in Education, 5, 455-463.

Frenk, S. M., Mustillo, S. A., Hooten, E. G., & Meador, K. G. (2013). The Clergy Occupational Distress Index (CODI): Background and findings from two samples of clergy. *Journal of Religion and Health*, *52*, 397-407.

Fürj Kuhn, J. (2023). *Understanding how people living with HIV/AIDS (PLWHA) experience social support in evangelical congregations* [Doctoral dissertation, Memorial University of Newfoundland].

Furman, D., Campisi, J., Verdin, E., Carrera-Bastos, P., Targ, S., Franceschi, C., ... & Slavich, G. M. (2019). Chronic inflammation in the aetiology of disease across the life span. *Nature Medicine*, *25*(12), 1822-1832.

Gable, S. L., Gosnell, C. L., Maisel, N. C., & Strachman, A. (2012). Safely testing the alarm: Close others' responses to personal positive events. *Journal Of Personality and Social Psychology*, *103*(6), 963.

Gaston-Johansson, F., Haisfield-Wolfe, M. E., Reddick, B., Goldstein, N., & Lawal, T. A. (2013). The relationships among coping strategies, religious coping, and spirituality in African American women with breast cancer receiving chemotherapy. In *Oncology Nursing Forum 40*,(2).

Gatchel, R. J., Peng, Y. B., Peters, M. L., Fuchs, P. N., & Turk, D. C. (2007). The biopsychosocial approach to chronic pain: Scientific advances and future directions. *Psychological Bulletin*, *133*(4), 581.

Ghana Statistical Service (GSS). (2020). Ghana Statistical Service. Retrieved on 14/04/2023 from https://census2021.statsghana.gov.gh/

Glanz, K., Rimer, B. K., & Viswanath, K. (Eds.). (2008). *Health behaviour and health education: theory, research, and practice*. New Jersey: John Wiley & Sons.

Glesby, M. J., & Myerson, M. (2019). The Changing Face of HIV. In *Cardiovascular Care in Patients with HIV* (pp. 3-9). Cham: Springer,.

Graham, J. M., & Barnow, Z. B. (2013). Stress and social support in gay, lesbian, and heterosexual couples: direct effects and buffering models. *Journal of Family Psychology*, *27*(4), 569.

Grill, K. B., Wang, J., Cheng, Y. I., & Lyon, M. E. (2020). The role of religiousness and spirituality in health-related quality of life of persons living with HIV: A latent class analysis. *Psychology of Religion and Spirituality*, *12*(4), 494.

Haghighat, R., Steinert, J., & Cluver, L. (2019). The effects of decentralising antiretroviral therapy care delivery on health outcomes for adolescents and young adults in low-and middle-income countries: A systematic review. *Global Health Action*, *12*(1), 1668596.

Hall, K. S. (2012). The health belief model can guide modern contraceptive behaviour research and practice. *Journal Of Midwifery & Women's Health*, *57*(1), 74-81.

Halligan, P., & Aylward, M. (2006). *The power of belief: psychosocial influences on illness, disability and medicine*. USA, Oxford University Press.

Hays, J. N., & Hays, J. (2009). *The burdens of disease: epidemics and human response in Western history*. Rutgers University Press.

Hipolito, R. L., Oliveira, D. C. D., Costa, T. L. D., Marques, S. C., Pereira, E. R., & Gomes, A. M. T. (2017). Quality of life of people living with HIV/AIDS: temporal, socio-demographic and perceived health relationship1. *Revista Latino-Americana De Enfermagem*, *25*.

Hochschild, A. R. (2015). Global care chains and emotional surplus value. In *Justice, politics, and the Family* (pp. 249-261). Routledge.

Hodge, D. R., Salas-Wright, C. P., & Wolosin, R. J. (2016). Addressing spiritual needs and overall satisfaction with service provision among older hospitalized inpatients. *Journal of Applied Gerontology*, *35*(4), 374-400.

Howsepian, B. A., & Merluzzi, T. V. (2009). Religious beliefs, social support, self-efficacy and adjustment to cancer. *Psycho-Oncology: Journal of the Psychological, Social and Behavioural Dimensions of Cancer*, *18*(10), 1069-1079.

Hutson, S. P., Darlington, C. K., Hall, J. M., Heidel, R. E., & Gaskins, S. (2018). Stigma and spiritual well-being among people living with HIV/AIDS in Southern Appalachia. *Issues in Mental Health Nursing*, *39*(6), 482-489.

Ironson, G., Stuetzle, R., & Fletcher, M. A. (2006). An increase in religiousness/spirituality occurs after HIV diagnosis and predicts slower disease progression over 4 years in people with HIV. *Journal of General Internal Medicine*, *21*, S62-S68.

Isacco, A., Sahker, E., Krinock, E., Sim, W., & Hamilton, D. (2016). How religious beliefs and practices influence the psychological health of Catholic priests. *American Journal of Men's Health*, *10*(4), 325-337.

Jacobson Jr, C. J., Luckhaupt, S. E., DeLaney, S., & Tsevat, J. (2006). Religio-biography, coping, and meaning-making among persons with HIV/AIDS. *Journal for the Scientific Study of Religion*, *45*(1), 39-56.

Jones, C. J., Smith, H., & Llewellyn, C. (2014). Evaluating the effectiveness of health belief model interventions in improving adherence: A systematic review. *Health Psychology Review*, *8*(3), 253-269.

Joseph, R. P., Ainsworth, B. E., Mathis, L., Hooker, S. P., & Keller, C. (2017). Incorporating religion and spirituality into the design of community-based physical activity programs for African American women: A qualitative inquiry. *BMC Research Notes*, *10*(1), 1-6.

Kalomo, E. N. (2018). Associations between HIV-related stigma, self-esteem, social support, and depressive symptoms in Namibia. *Aging & Mental Health*, *22*(12), 1570-1576.

Kalomo, E. N., Jun, J. S., Lee, K. H., & Kaddu, M. N. (2021). Depressive symptoms among older adults with HIV in Namibia: The role of social support and spirituality. *African Journal of AIDS Research*, *20*(1), 25-31.

Kamen, C., Vorasarun, C., Canning, T., Kienitz, E., Weiss, C., Flores, S., & Gore-Felton, C. (2016). The impact of stigma and social support on the development of post-traumatic growth among persons living with HIV. *Journal of Clinical Psychology in Medical Settings*, *23*(2), 126-134.

Kansiewicz, K. M., Sells, J. N., Holland, D., Lichi, D., & Newmeyer, M. (2022). Well-being and help-seeking among assemblies of god ministers in the USA. *Journal of Religion and Health*, *61*(2), 1242-1260.

Kashif, M., Zarkada, A., & Ramayah, T. (2018). The impact of attitude, subjective norms, and perceived behavioural control on managers' intentions to behave ethically. *Total Quality Management & Business Excellence*, *29*(5-6), 481-501.

Katerndahl, D. A. (2008). Impact of spiritual symptoms and their interactions on health services and life satisfaction. *The Annals of Family Medicine*, *6*(5), 412-420.

Kazdin, A. E. (2021). *Research design in clinical psychology*. UK: Cambridge University Press.

Kelley-Gillespie, N. (2009). An integrated conceptual model of quality of life for older adults based on a synthesis of the literature. *Applied Research in Quality of Life*, *4*(3), 259-282.

Khamarko, K., Myers, J. J., & World Health Organization. (2013). *The influence of social support on the lives of HIV-infected individuals in low-and middle-income countries* (No. WHO/HIV/2013.51). World Health Organization.

Kim, H. S., Ahn, J., & No, J. K. (2012). Applying the Health Belief Model to college students' health behaviour. *Nutrition Research and Practice*, *6*(6), 551-558.

Kiriakidis, S. (2017). Perceived behavioural control in the theory of planned behaviour: Variability of conceptualization and operationalization and implications for measurement. In *Strategic Innovative Marketing* (pp. 197-202). Springer, Cham.

Klasse, P. J. (2016). How to assess the binding strength of antibodies elicited by vaccination against HIV and other viruses. *Expert Review of Vaccines*, *15*(3), 295-311.

Kodym, P., Malý, M., Beran, O., Jilich, D., Rozsypal, H., Machala, L., & Holub, M. (2015). Incidence, immunological and clinical characteristics of reactivation of latent Toxoplasma gondii infection in HIV-infected patients. *Epidemiology & Infection*, *143*(3), 600-607.

Krauss, S. E. (2005). Research paradigms and meaning-making: A primer. The Qualitative Report, 10(4), 758-770.

Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The PHQ‐9: Validity of a brief depression severity measure. *Journal of General Internal Medicine*, *16*(9), 606-613.

Kuo, D. Z., Houtrow, A. J., Arango, P., Kuhlthau, K. A., Simmons, J. M., & Neff, J. M. (2012). Family-centered care: current applications and future directions in pediatric health care. *Maternal and Child Health Journal*, *16*, 297-305.

Laar, A., & DeBruin, D. (2017). Key populations and human rights in the context of HIV services rendition in Ghana. *BMC International Health and Human Rights*, *17*(1), 1-10.

Lee, M. (2012). Religious coping, depression, and quality of life in people living with HIV/AIDS. *Journal of Clinical Issues, 3*(2), 69-78

Leedy, P. D., & Ormrod, J. E. (2005). *Practical research (Vol. 108).* Saddle River, NJ, USA: Pearson Custom.

Lennon, M. C., Martin, J. L., & Dean, L. (1990). The influence of social support on AIDS-related grief reaction among gay men. *Social Science & Medicine*, *31*(4), 477-484.

Leung, L. (2011). Loneliness, social support, and preference for online social interaction: The mediating effects of identity experimentation online among children and adolescents. *Chinese Journal of Communication*, *4*(4), 381-399.

Li, X. M., Yuan, X. Q., Wang, J. J., Zhang, W. Y., Zhou, Y., & Liu, G. N. (2017). Evaluation of the impact of social support and care on HIV-positive and AIDS individuals' quality of life: a nonrandomised community trial. *Journal of Clinical Nursing*, *26*(3-4), 369-378.

Li, Y., Zhang, X. W., Liao, B., Liang, J., He, W. J., Liu, J., ... & Wang, J. Y. (2021). Social support status and associated factors among people living with HIV/AIDS in Kunming city, China. *BMC Public Health*, *21*, 1-6.

Liégeois, A. (2014). Quality of life without spirituality? A theological reflection on the quality of life of persons with intellectual disabilities. *Journal of Disability & Religion*, *18*(4), 303-317.

Lincoln, Y. S., & Guba, E. G. (2000). The only generalization is: There is no generalization. *Case study method, 27-44*

Lindlof, T. R., & Taylor, B. C. (2011). Sensemaking: Qualitative data analysis and interpretation. *Qualitative Communication Research Methods*, *3*(1), 241–281.

Liping, M., Peng, X., Haijiang, L., Lahong, J., & Fan, L. (2015). Quality of life of people living with HIV/AIDS: A cross-sectional study in Zhejiang Province, China. *PloS One*, *10*(8), e0135705.

Loke, A. Y., Davies, L., & Li, S. F. (2015). Factors influencing the decision that women make on their mode of delivery: The Health Belief Model. *BMC Health Services Research*, *15*(1), 1-12.

Lokpo, S. Y., Ofori-Attah, P. J., Ameke, L. S., Obirikorang, C., Orish, V. N., Kpene, G. E., ... & Tetteh Quarshie, S. (2020). Viral suppression and its associated factors in HIV patients on highly active antiretroviral therapy (HAART): A retrospective study in the Ho Municipality, Ghana. *AIDS Research and Treatment,*

Lorenz, K., Latzke, M., & Salzen, E. (2021). *On aggression*. Routledge.

Lucchetti, G., de Almeida, L. G. C., & Lucchetti, A. L. G. (2012). Religiousness, mental health, and quality of life in B razilian dialysis patients. *Hemodialysis International*, *16*(1), 89-94.

Maracy, M. R., Mostafaei, S., Moghoofei, M., & Mansourian, M. (2017). Impact of HIV risk factors on survival in Iranian HIV-infected patients: A Bayesian approach to the retrospective cohort. *HIV & AIDS Review. International Journal of HIV-Related Problems*, *16*(2), 100-106.

Matthews, P., Madge, S., Singh, S., & Theobald, N. (2016). *HIV in primary care*. UK: MEDFASH.

McCarthy, I., Taylor, C., Leamy, M., Reynolds, E., & Maben, J. (2021). We needed to talk about it : The experience of sharing the emotional impact of health care work as a panellist in Schwartz Center Rounds® in the UK. *Journal of Health Services Research & Policy*, *26*(1), 20–27.

Megari, K. (2013). Quality of life in chronic disease patients. Health psychology research, *1*(3).

Melhuish, A., & Lewthwaite, P. (2018). Natural history of HIV and AIDS. *Medicine*, *46*(6), 356-361.

Mena, C., Terry, L. A., Williams, A., & Ellram, L. (2014). Causes of waste across multi-tier supply networks: Cases in the UK food sector. *International Journal of Production Economics*, *152*, 144-158.

Midtbø, V., Shirima, V., Skovdal, M., & Daniel, M. (2012). How disclosure and antiretroviral therapy helps HIV-infected adolescents in sub-Saharan Africa cope with stigma. *African Journal of AIDS Research*, *11*(3), 261-271.

Mojtabai, R., Evans-Lacko, S., Schomerus, G., & Thornicroft, G. (2016). Attitudes toward mental health help-seeking as predictors of future help-seeking behaviour and use of mental health treatments. *Psychiatric Services*, *67*(6), 650-657.

Morris, D. B. (2020). Illness and culture in the postmodern age. In *Illness and Culture in the Postmodern Age*. University of California Press.

Moss, J. A. (2013). HIV/AIDS Review. *Radiologic Technology*, *84*(3), 247-267.

Moyer, C. A., Ekpo, G., Calhoun, C. L., Greene, J., Naik, S., Sippola, E., ... & Anderson, F. J. (2008). Quality of life, optimism/pessimism, and knowledge and attitudes toward HIV screening among pregnant women in Ghana. *Women's Health Issues*, *18*(4), 301-309.

Mugisha, J., Kinyanda, E., Osafo, J., Nalukenge, W., & Knizek, B. L. (2020). Health care professionals' perspectives on barriers to treatment seeking formal health services among orphan children and adolescents with HIV/AIDS and mental distress in a rural district in central, Uganda. *Child and Adolescent Psychiatry and Mental Health*, *14*(1), 1-10.

Muijs, D. (2010). Doing quantitative research in education with SPSS. 1-264.

Muniruzzaman, M. D. (2017). Transformation of intimacy and its impact in developing countries. *Life Sciences, Society and Policy*, *13*(1), 1-19.

Naku Ghartey Jnr, F., Anyanful, A., Eliason, S., Mohammed Adamu, S., & Debrah, S. (2016). Pattern of breast cancer distribution in Ghana: A survey to enhance early detection, diagnosis, and treatment. *International Journal of Breast Cancer, 2016*.

Namir, S., Wolcott, D. L., Fawzy, F. I., & Alumbaugh, M. J. (1987). Coping with AIDS: psychological and health implications *Journal of Applied Social Psychology*, *17*(3), 309-328.

Neff, M. A., & McMinn, M. R. (2020). *Embodying integration: A fresh look at Christianity in the therapy room*. USA: InterVarsity Press.

Nguyen, M. X., Go, V. F., Bui, Q. X., Gaynes, B. N., & Pence, B. W. (2019). Perceived need, barriers to and facilitators of mental health care among

HIV-infected PWID in Hanoi, Vietnam: A qualitative study. *Harm Reduction Journal*, *16*(1), 1-9.

Nsafoah, F. (2012). *Factors influencing the utilisation of the University of Cape Coast hospital by undergraduate students* [Doctoral dissertation, University of Cape Coast]. Cape Coast

O'Brien, P., & Keyder, C. (2012). *Economic growth in Britain and France 1780-1914 (Routledge Revivals): Two paths to the twentieth century*. UK: Routledge.

Okonkwo, N. E., Blum, A., Viswasam, N., Hahn, E., Ryan, S., Turpin, G., ... & Hansoti, B. (2022). A Systematic Review of Linkage-to-Care and Antiretroviral Initiation Implementation Strategies in Low-and Middle-Income Countries Across Sub-Saharan Africa. AIDS and Behavior, 1-12.

O'Leary, Z. (2004). *The essential guide to doing research*. USA: Sage.

Opoku, E. T. (2019). *Assessment of Implementation of the National Guidelines for Prevention of Mother-To-Child Transmission of HIV among Selected Districts in the Eastern Region of Ghana* [Doctoral dissertation, University of Ghana]. Accra

Opoku, M. P., Agyei-Okyere, E., Nketsia, W., Torgbenu, E. L., & Kumi, E. O. (2022). Perceived self-efficacy of students and its influence on attitudes and knowledge about HIV/AIDS in Ghana. *The International Journal of Health Planning and Management*, *37*(2), 755-769.

Opoku-Anane, J., Diouf, K., & Nour, N. M. (2012). New success with microbicides and pre-exposure prophylaxis for human immunodeficiency virus (HIV): is female-controlled prevention the answer to the HIV epidemic? *Reviews in Obstetrics and Gynecology*, *5*(1), 50.

Osei-Yeboah, J., Owiredu, W. K., Norgbe, G. K., Lokpo, S. Y., Obirikorang, C., Alote Allotey, E., ... & Jenkins Gbemu, M. (2017). Quality of life of people living with HIV/AIDS in the Ho Municipality, Ghana: A cross-sectional study. *AIDS Research and Treatment*.

Ouattara, L. A., Anderson, S. M., & Doncel, G. F. (2018). Seminal exosomes and HIV-1 transmission. *Andrologia*, *50*(11), e13220.

Owusu, A. Y. (2020). A gendered analysis of living with HIV/AIDS in the Eastern Region of Ghana. *BMC Public Health*, *20*(1), 1-15.

Owusu, K. K., Adu-Gyamfi, R., & Ahmed, Z. (2019). Strategies to improve linkage to HIV care in urban areas of Sub-Saharan Africa: A systematic review. *HIV/AIDS (Auckland, NZ)*, *11*, 321.

Panzini, R. G., Rocha, N. S. D., Bandeira, D. R., & Fleck, M. P. D. A. (2007). Quality of life and spirituality. *Archives of Clinical Psychiatry (São Paulo)*, *34*, 105-115.

Pargament, K. I., Koenig, H. G., Tarakeshwar, N., & Hahn, J. (2004). Religious coping methods as predictors of psychological, physical and spiritual outcomes among medically ill elderly patients: A two-year longitudinal study. *Journal of Health Psychology*, *9*(6), 713-730.

Park, N., Peterson, C., Szvarca, D., Vander Molen, R. J., Kim, E. S., & Collon, K. (2016). Positive psychology and physical health: Research and Applications. *American Journal of Lifestyle Medicine, 10*(3), 200-206.

Park, Y. S., Konge, L., Artino, A., R. (2019). The Positivism Paradigm of Research. *Romão Jr JE. Doença renal crônica: definição, epidemiologia e classificação. J Bras Nefrol.* (Suppl 1), 4-5.

Perry, T. E., Davis-Maye, D., & Onolemhemhen, D. N. (2007). Faith, spirituality, fatalism and hope: Ghanaian women coping in the face of HIV/AIDS. *Journal of HIV/AIDS & Social Services*, *6*(4), 37-58.

Pilaikiat, R., Fongkaew, W., Sethabouppha, H., Phornphibul, P., & Voss, J. G. (2016). Development of a Buddhist Spiritual Care Model for people at the end of life. *Journal of Hospice & Palliative Nursing*, *18*(4), 324-331.

Pinho, C. M., Dâmaso, B. F. R., Gomes, E. T., Trajano, M. D. F. C., Andrade, M. S., & Valença, M. P. (2017). Religious and spiritual coping in people living with HIV/Aids. *Revista Brasileira de Enfermagem*, *70*, 392-399.

Poorolajal, J., Hooshmand, E., Mahjub, H., Esmailnasab, N., & Jenabi, E. (2016). Survival rate of AIDS disease and mortality in HIV-infected patients: A meta-analysis. *Public health*, *139*, 3-12.

Ramer, L., Johnson, D., Chan, L., & Barrett, M. T. (2006). The effect of HIV/AIDS disease progression on spirituality and self-transcendence in a multicultural population. *Journal of Transcultural Nursing*, *17*(3), 280-289.

Ranganathan, K., & Umadevi, K. M. R. (2019). Common oral opportunistic infections in Human Immunodeficiency Virus infection/Acquired Immunodeficiency Syndrome: Changing epidemiology; diagnostic criteria and methods; management protocols. *Periodontology 2000*, *80*(1), 177-188.

Rasoolinajad, M., Abedinia, N., Noorbala, A. A., Mohraz, M., Badie, B. M., Hamad, A., & Sahebi, L. (2018). Relationship among HIV-related stigma, mental health and quality of life for HIV-positive patients in Tehran. *AIDS and Behaviour*, *22*(12), 3773-3782.

Roden, J. (2004). Revisiting the health belief model: Nurses applying it to young families and their health promotion needs. *Nursing & Health Sciences*, *6*(1), 1-10.

Rosenstock, I. M., Strecher, V. J., & Becker, M. H. (1994). The health belief model and HIV risk behaviour change. In *Preventing AIDS: Theories and Methods of Behavioural Interventions* (pp. 5-24). Boston, MA: Springer US.

Saad, B. M., Subramaniam, G., & Tan, P. L. (2013). Awareness and vulnerability to HIV/AIDS among young girls. *Procedia-Social and Behavioural Sciences*, *105*, 195-203.

Saad, M., De Medeiros, R., & Mosini, A. C. (2017). Are we ready for a true biopsychosocial–spiritual model? The many meanings to "spiritual". *Medicines*, *4*(4), 79.

Saah, F. I., Aidam, K., Seidu, A. A., Amu, H., & Bain, L. E. (2024). Effect of status disclosure on quality of life among people living with HIV/AIDS in Ghana: A health facility-based cross-sectional study. *PLOS Mental Health*, *1*(1), e0000060.

Santoro, M. M., & Perno, C. F. (2013). HIV-1 genetic variability and clinical implications. International Scholarly Research Notices, 2013.

Santos, E. C. M. D., França Junior, I., & Lopes, F. (2007). Quality of life of people living with HIV/AIDS in São Paulo, Brazil. *Revista de Saúde Pública*, *41*, 64-71.

Santrock, J. W. (2007). A topical approach to life-span development, 3E. *Ch*, *5*, 192.

Schultz, B. E., Corbett, C. F., & Hughes, R. G. (2022). Instrumental support: A conceptual analysis. *Nursing forum*, *57*(4), 665–670.

Scorgie, F., Chersich, M. F., Ntaganira, I., Gerbase, A., Lule, F., & Lo, Y. R. (2012). Socio-demographic characteristics and behavioural risk factors of female sex workers in sub-Saharan Africa: A systematic review. *AIDS and Behaviour*, *16*(4), 920-933.

Seffren, V., Familiar, I., Murray, S. M., Augustinavicius, J., Boivin, M. J., Nakasujja, N., & Bass, J. (2018). Association between coping strategies, social support, and depression and anxiety symptoms among rural Ugandan women living with HIV/AIDS. *AIDS Care*, *30*(7), 888-895.

Seidu, Y. (2012). *Human resource management and organizational performance: Evidence from the retail banking sector* [Doctoral dissertation, Aston University]. England

Selin, H., & Davey, G. (Eds.). (2012). *Happiness across cultures: Views of happiness and quality of life in non-Western cultures* (Vol. 6). USA: Springer Science & Business Media.

Shrestha, S., Shibanuma, A., Poudel, K. C., Nanishi, K., Koyama Abe, M., Shakya, S. K., & Jimba, M. (2019). Perceived social support, coping, and stigma on the quality of life of people living with HIV in Nepal: A moderated mediation analysis. *AIDS Care, 31*(4), 413-420.

Siegel, F. R. (2015). Progressive Adaptation: The Key to Sustaining a Growing Global Population. *In Countering 21st Century Social-Environmental Threats to Growing Global Populations (pp. 137-160).* Cham: Springes.

Simoni, J. M., & Ortiz, M. Z. (2003). Mediational models of spirituality and depressive symptomatology among HIV-positive Puerto Rican women. *Cultural Diversity and Ethnic Minority Psychology*, *9*(1), 3.

Simoni, J. M., Frick, P. A., & Huang, B. (2006). A longitudinal evaluation of social support model of medication adherence among HIV-positive men and women on antiretroviral therapy. *Health Psychology*, *25*(1), 74.

Simoni, J. M., Martone, M. G., & Kerwin, J. F. (2002). Spirituality and psychological adaptation among women with HIV/AIDS: Implications for counselling. *Journal of Counselling Psychology*, *49*(2), 139.

Snyder, K. A. (2017). *A Preference for Self-Reliance Beyond the Typical Conceptualization of Social Support in Close Relationships: Can Less be More*. Columbia: Columbia University.

Sosnowy, C., Silverman, C., Shattuck, P., & Garfield, T. (2019). Setbacks and successes: How young adults on the autism spectrum seek friendship. *Autism in Adulthood*, *1*(1), 44-51.

Stratton, S. J. (2021). Population research: convenience sampling strategies. *Prehospital and disaster Medicine*, *36*(4), 373-374.

Streeck, H., & Nixon, D. F. (2010). T cell immunity in acute HIV-1 infection. *The Journal of Infectious Diseases*, *202*(Supplement_2), S302-S308.

Subramanian, A., Mohan, A., Nandi, P. K., & Rajeshwari, K. (2021). Perceived social support, depression and their impact on quality of life of people living with HIV in India. *AIDS care*, *33*(10), 1329-1334.

Subramanian, T., Gupte, M. D., Dorairaj, V. S., Periannan, V., & Mathai, A. K. (2009). Psycho-social impact and quality of life of people living with HIV/AIDS in South India. *Aids Care*, *21*(4), 473-481.

Sulung, N., & Asyura, R. (2019). The analysis of spirituality of patients with HIV/AIDS in taking lessons and self-acceptance. *Indian Journal of Palliative Care*, *25*(2), 232.

Tarakeshwar, N., Hansen, N., Kochman, A., & Sikkema, K. J. (2005). Gender, ethnicity and spiritual coping among bereaved HIV-positive individuals. *Mental Health, Religion & Culture*, *8*(2), 109-125.

Tarakeshwar, N., Khan, N., & Sikkema, K. J. (2006). A relationship-based framework of spirituality for individuals with HIV. *AIDS and Behavior*, *10*, 59-70.

Tarkang, E. E., & Zotor, F. B. (2015). Application of the health belief model (HBM) in HIV prevention: a literature review. *Central African Journal of Public Health*, *1*(1), 1-8.

Thomas, F. (2006). Stigma, fatigue and social breakdown: Exploring the impacts of HIV/AIDS on patient and carer well-being in the Caprivi Region, Namibia. *Social Science & Medicine*, *63*(12), 3174-3187.

Thompson, S. K. (2012). *Sampling (Vol. 755*). New York: John Wiley & Sons.

Tonbul, H. Z. (2012). Health-related qualıty of lıfe, sleep qualıty, and depressıon in peritoneal dialysis and hemodıalysıs patients. *Hemodialysis International*, *16*(2), 198-206.

Tracy, S. J. (2019). *Qualitative research methods: Collecting evidence, crafting analysis, communicating impact*. John Wiley & Sons.

Tuck, I., McCain, N. L., & Elswick Jr, R. K. (2001). Spirituality and psychosocial factors in persons living with HIV. *Journal of Advanced Nursing*, *33*(6), 776-783.

Turkmen, K., Yazici, R., Solak, Y., Guney, I., Altintepe, L., Yeksan, M., & Tonbul, H. Z. (2012). Health-related qualıty of lıfe, sleep qualıty, and depressıon in peritoneal dialysis and hemodıalysıs patients. *Hemodialysis International*, *16*(2), 198-206.

Turner, N., Hastings, J. F., & Neighbours, H. W. (2019). Mental health care treatment seeking among African Americans and Caribbean Blacks: what is the role of religiosity/spirituality? *Aging & Mental Health, 23*(7), 905-911.

Tyrer, S., & Heyman, B. (2016). Sampling in epidemiological research: issues, hazards and pitfalls. *BJPsych Bulletin*, *40*(2), 57-60.

UNAIDS, U. (2011). *Countdown to ZERO: global plan towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive*. Geneva: UNAIDS.

Veenhoven, R. (2012). Happiness: Also known as “life satisfaction” and “subjective well-being”. In *Handbook of Social Indicators and Quality of Life Research* (pp. 63-77). Springer, Dordrecht.

Vidourek, R. A., King, K. A., Nabors, L. A., & Merianos, A. L. (2014). Students' benefits and barriers to mental health help-seeking. *Health Psychology and Behavioural Medicine: An Open Access Journal*, *2*(1), 1009-1022.

Vidya Vijayan, K. K., Karthigeyan, K. P., Tripathi, S. P., & Hanna, L. E. (2017). Pathophysiology of CD4+ T-cell depletion in HIV-1 and HIV-2 infections. *Frontiers in Immunology*, *8,* 580.

Whitehead, A. L., Sully, B. G., & Campbell, M. J. (2014). Pilot and feasibility studies: Is there a difference between each other and from a randomised controlled trial? *Contemporary Clinical Trials, 38*(1), 130-133.

Williams, M. S., & Amoateng, P. (2012). Knowledge and beliefs about cervical cancer screening among men in Kumasi, Ghana. *Ghana Medical Journal*, *46*(3), 147.

Wongpakaran, T., Wongpakaran, N., & Ruktrakul, R. (2011). Reliability and validity of the multidimensional scale of perceived social support (MSPSS): Thai version. *Clinical practice and epidemiology in mental health: CP & EMH*, *7*, 161.

Woods, T. E., & Ironson, G. H. (1999). Religion and spirituality in the face of illness: How cancer, cardiac, and HIV patients describe their spirituality/religiosity. *Journal of Health Psychology*, *4*(3), 393-412.

World Health Organization. (1996). *WHOQOL-BREF: Introduction, administration, scoring and generic version of the assessment: field trial version, December 1996* (No. WHOQOL-BREF). Gevena: World Health Organization.

World Health Organization. (2016). *Progress report 2016: prevent HIV, test and treat all: WHO support for country impact* (No. WHO/HIV/2016.24). Gevena World Health Organization.

World Health Organization. (2018). HIV self-testing strategic framework: a guide for planning, introducing and scaling up.

Wu, G., & Zaman, M. H. (2012). Low-cost tools for diagnosing and monitoring HIV infection in low-resource settings. *Bulletin of the World Health Organization*, *90*, 914-920.

Xiao, Z., Li, X., Qiao, S., Zhou, Y., & Shen, Z. (2017). Social support, depression, and quality of life among people living with HIV in Guangxi, China. *AIDS Care*, *29*(3), 319-325.

Yadav, S. (2010). Perceived social support, hope, and quality of life of persons living with HIV/AIDS: A case study from Nepal. *Quality of Life Research*, *19*(2), 157-166.

Yang-Wallentin, F., Schmidt, P., Davidov, E., & Bamberg, S. (2004). Is there any interaction effect between intention and perceived behavioural control? *Methods of psychological research online, 8*(2), 127-157.

Yaya, I., Djalogue, L., Patassi, A. A., Landoh, D. E., Assindo, A., Nambiema, A., & Saka, B. (2019). Health-related quality of life among people living with HIV/AIDS in Togo: Individuals and contextual effects. *BMC research notes*, *12*(1), 1-6.

Zarei, N., & Joulaei, H. (2018). The Impact of perceived stigma, quality of life, and spiritual beliefs on suicidal ideations among HIV-positive patients. *AIDS research and treatment*, *2018*.

Zhang, Y., Wan, J., Ji, L., Liu, G., Shi, Y., Zhao, J., & Li, X. (2022). Does HIV-Related Stigma Depress Social Well-Being of Youths Affected by Parental HIV/AIDS? *Frontiers in Psychiatry*, *13*.

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of Personality Assessment*, *52*(1), 30-41.

APPENDIX

APPENDIX A: QUESTIONNAIRES

SECTION 1

DEMOGRAPHICAL CHARACTERISTICS

1. Sex :
2. Age :
3. Nationality :
4. Occupation :
5. Date of first diagnosis :

SECTION 2

QUALITY OF LIFE

Instructions: This questionnaire asks how you feel about your quality of life, health, or other areas of your life. Please answer all of the questions. If you are unsure about which response to give to a question, please choose the one that appears most appropriate. This can often be your first response. Please read each question, assess your feelings, and circle the number on the scale that gives the best answer for you for each question.

Keys:

1. Very poor
2. Poor
3. Neither poor nor well
4. Well
5. Very well

1	How would you rate your quality of life?	1	2	3	4	5
2	How satisfied are you with your health?	1	2	3	4	5
3	To what extent do you feel that physical pain prevents you from doing what you need to do?	1	2	3	4	5
4	How much do you need any medical treatment to function in your life?	1	2	3	4	5
5	How much do you enjoy life?	1	2	3	4	5
6	To what extent do you feel your life to be meaningful?	1	2	3	4	5
7	How well are you able to concentrate?	1	2	3	4	5
8	How safe do you feel in your daily life?	1	2	3	4	5
9	How healthy is your physical environment?	1	2	3	4	5
10	Do you have enough energy for everyday life?	1	2	3	4	5
11	Are you able to accept your bodily appearance?	1	2	3	4	5
12	Have you enough money to meet your needs?	1	2	3	4	5
13	How available to you is the information that you need in your day-to-day life?	1	2	3	4	5
14	To what extent do you have the opportunity for leisure activities?	1	2	3	4	5
15	How well are you able to get around?	1	2	3	4	5
16	How satisfied are you with your sleep?	1	2	3	4	5
17	How satisfied are you with your ability to perform your daily living activities?	1	2	3	4	5
18	How satisfied are you with your capacity for work?	1	2	3	4	5
19	How satisfied are you with yourself?	1	2	3	4	5
20	How satisfied are you with your relationship?	1	2	3	4	5
21	How satisfied are you with your sex life?	1	2	3	4	5
22	How satisfied are you with the support you get from friends?	1	2	3	4	5
23	How satisfied are you with the condition of your living place?	1	2	3	4	5
24	How satisfied are you with your access to health services?	1	2	3	4	5
25	How satisfied are you with your transport?					
26	How often do you have negative feelings such blue mood, despair, anxiety and depression?	1	2	3	4	5

SECTION 3

SPIRITUALITY

Directions: indicate your level of agreement to the following statements by circling the appropriate number that corresponds with the answer.

Keys: 1. Strongly Disagree
2. Disagree
3. Mostly Disagree
4. Mostly Agree
5. Agree
6. Strongly Agree

N0.	Items	1	2	3	4	5	6
1	My faith in a Higher Power/Universal Intelligence helps me cope with challenges in my life	1	2	3	4	5	6
2	My spirituality gives me inner strength	1	2	3	4	5	6
3	Prayer is an integral part of my spiritual nature	1	2	3	4	5	6
4	I have a relationship with a Higher Power/Universal Intelligence	1	2	3	4	5	6
5	I often take time to assess my life choices as a way of living my spirituality	1	2	3	4	5	6
6	I believe that nature should be respected	1	2	3	4	5	6
7	I believe that all living creatures deserve respect	1	2	3	4	5	6
8	I respect the diversity of people	1	2	3	4	5	6
9	My life is a process of becoming	1	2	3	4	5	6
10	I have a sense of purpose	1	2	3	4	5	6
11	I am happy about the person I have become	1	2	3	4	5	6
12	I find meaning in my life experiences	1	2	3	4	5	6

SECTION 4

SOCIAL SUPPORT

Instructions: I am interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Circle the following as you feel about them.

1= Very Strongly Disagree

2= Strongly Disagree

3= Mildly Disagree

4= Neutral

5= Mildly Agree

6= Strongly Agree

7=Very Strongly Agree

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

APPENDIX B: INFORMED CONSENT

Title of Research: Spirituality, Social Support and Quality of Life of Persons Living with HIV/AIDS [PLWHA]

Institutional Contact: University of Cape Coast/ Department of Education and Psychology/ Faculty of Educational Foundations/ College of Education Studies

Researcher: Rev. Fr. Nicholas Amoakwa [MPHIL CLINICAL HEALTH PSYCHOLOGY]

SUPERVISOR: Prof. Emmanuel K. Gyimah

Purpose of the Study: the study seeks to examine the spirituality, social support and quality of life of persons living with HIV/AIDS

1. Description of the Research (what participation in the study entails): When you enter into this research, you will be asked to complete three questionnaires on quality of life, spirituality and social support.
2. It estimates that 300 participants will enrol in this study. Participants must have must be 18 years and above, and can hear and verbally speak. Your participation will involve one visit, approximately 30 minutes in length.
3. Potential Risks and Discomforts: there are “no known risks” yet in case any, they shall be dealt with.
4. People who participate in this study may have a better understanding of additional treatment methods that enable individuals to experience and increase their overall sense of well-being.
5. Confidentiality: All information taken from the study will be coded to protect each subject’s name. No names or other identifying information will be used when discussing or reporting data. Your responses are completely anonymous. No personal identifying information or IP addresses will be collected. Quantitative results will be shared with the necessary stakeholders such as the ministry of health, hospital administration, healthcare professionals and you the participant through seminars

6. Voluntary Participation and Authorization: Your decision to participate in this study is completely voluntary. If you decide to **NOT** participate in this study, it will not affect the care, services, or benefits to which you are entitled. If you decide to participate in this study, you may withdraw from your participation at any time without penalty.
7. Legally I take responsibility for a breach of this consent form

Note well

I voluntarily agree to participate in this research program ☐ Yes ☐ No

Name of Participant:
Signature:
Date:

Name of Witness:
Signature:
Date:

The researcher Obtaining Consent:
Signature:
Date:

APPENDIX C: TEST OF NORMALITY RESULTS

As observed from the histogram is symmetrical along with the centre 0. Also, as observed from the normal P-P plot, there is a diagonal line with a bunch of little circles on both side of it. Therefore, this study fulfils the estimate of normality estimate as shown in figure 3 and 4 below. Thus, based on the plot, the distribution confirmed to be normal and the collected data were complete for the analysis.

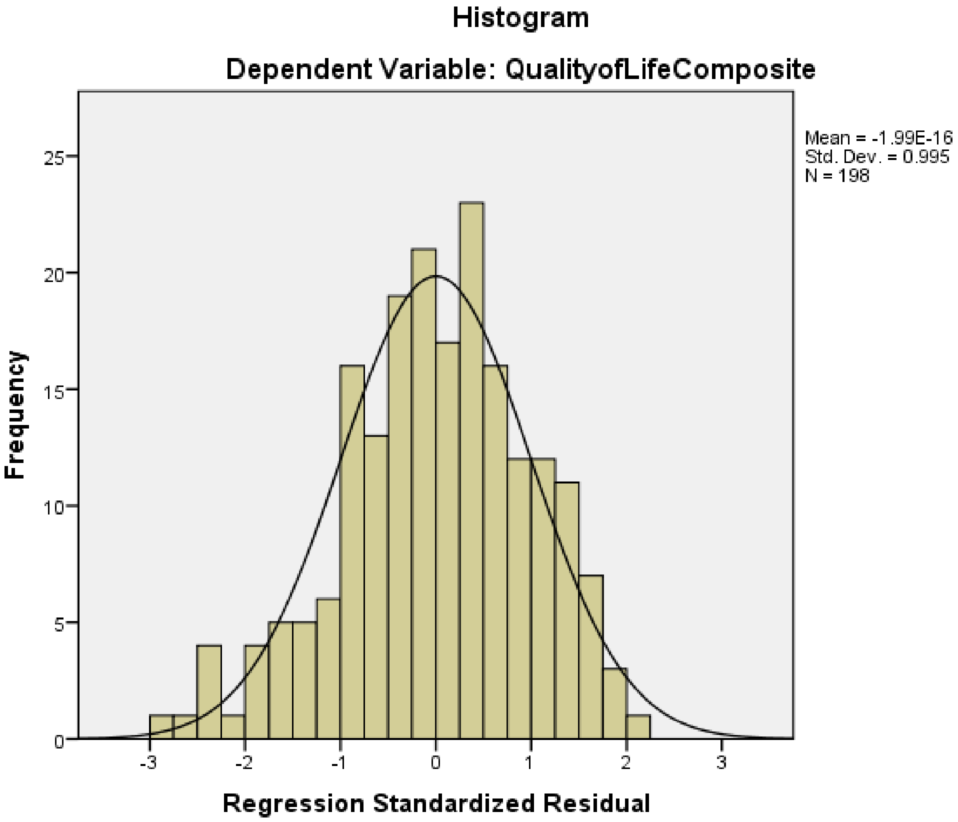

Figure 3: Histogram test of normality of variance

Source: Field survey, 2023

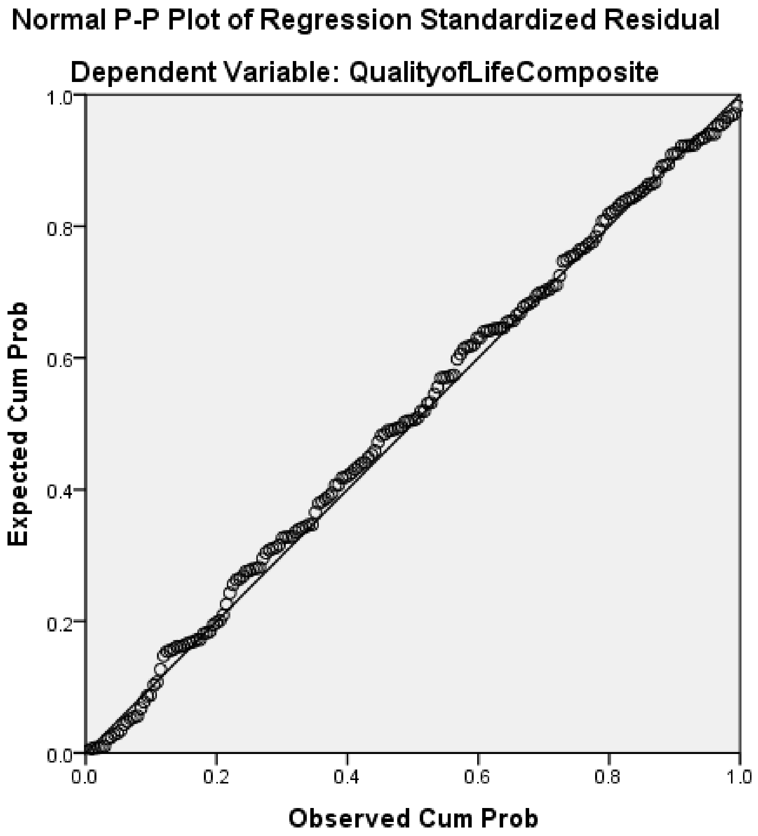

Figure 4: Normal P-P plot test of normality of variance

Source: Field survey, 2023