UNIVERSITY OF CAPE COAST

INFLUENCE OF SOCIAL SUPPORT AND SELF-ESTEEM ON THE QUALITY OF LIFE OF PROSTATE CANCER PATIENTS.

BY

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DECLARATION

Candidate's Declaration

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

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

Name: …….

Supervisors' Declaration

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

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

Name: ……

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

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ABSTRACT

The study sought to investigate the influence of social support and self-esteem on the quality of life of prostate cancer patients at Cape Coast Teaching Hospital in the Central Region of Ghana. The descriptive survey research design was employed for the study. Through the use of simple random sampling procedure, 100 respondents were selected to participate in the study. The questionnaire was used to gather the requisite data for the study. The data were analysed through the computation of frequencies, percentages, means and standard deviations, multivariate simple linear regression as well as moderation analyses with Hayes PROCESS. The study among other things found that, there was a statistically significant relationship between social support and self-esteem on the quality of life of prostate cancer patients. Again, social support significantly moderated the relationship between self-esteem and the quality of life of prostate cancer patients. The study recommended that, screening for social support and self-esteem at the time of diagnosis should be considered and that health professionals should inculcate interventions designed to enhance social support and self-esteem of prostate cancer patients in their field of practice.

KEY WORDS

Quality of Life

Social Support

Self- esteem

Prostate Cancer

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DEDICATION

In memory of Agnes Noble Aacht (Mother)

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CHAPTER ONE

INTRODUCTION

This chapter provides detailed background information of prostate cancer, specifically, issues associated with diagnosis, treatment modalities and prevalence of prostate cancer from a global perspective down to the Ghanaian context. The background information primarily throws light on variables such as social support and self-esteem and how it impacts on quality of life of prostate cancer patients. This is followed by the statement of the research problem, the purpose of study, objectives of study, the statement of hypotheses, the significance of the study, delimitation and limitations of the study, definition of terms and the organization of the study.

Background to the Study

All types of cancers emerge from cells, the body's fundamental unit of life. In recent times, cancer is considered a pandemic of chronic non-communicable diseases (NCDs) because of its incidence and associated morbidity and mortality (Denyse, Oliveira, Conceição, & Santos, n.d.). This disease is different from other chronic diseases in that its pathology can lead to deformities, pain and mutilation, thus causing great psychological impact and negative feelings from the time of diagnosis (Enfermagem, 2015).

Prostate cancer is becoming an important public health concern worldwide. Prostate cancer is rare in men younger than 40, but the chance of having it increases rapidly after age 50. According to American Cancer Society (2018) about 6 in 10 cases of prostate cancer are found in men older than 65. Approximately 70% of prostate cancer diagnosis occurs in men over 65 years

old. (Andrew, Roth, Weinberger, & Nelson, 2008). According to American Cancer Society (2018), prostate cancer begins when cells in the prostate gland start to grow uncontrollably. The prostate is a gland found only in males. It is partly responsible for the production of semen. The prostate is located below the bladder and in front of the rectum. They further maintain that, the size of the prostate changes with age. A healthy prostate size in younger males is about the size of a walnut, but it can be much larger in older men. Almost all prostate cancers are adenocarcinomas. Adenocarcinomas cancers are developed from the gland cells; cells that make the prostate fluid and are added to the semen. Other types of prostate cancer include sarcomas, small cell carcinomas, neuroendocrine tumors (other than small cell carcinomas) and transitional cell carcinomas. Arthur, Yeboah, Adu-Frimpong, Sedudzi and Boateng (2005) postulate that prostate cancer in its earliest stage, produce no signs or symptoms. As the cancer grows, certain signs and symptoms may be noticed which include painful ejaculation and blood in urine. Other symptoms may include swelling in the groin area, loss of appetite, weight loss and impotence.

The main diagnostic and staging examinations for prostate cancer according to Andrew, Roth, Weinberger and Nelson (2008) are digital rectal examination (DRE), elevation of prostate-specific antigen (PSA), trans rectal ultrasonic sound (TRUS) and trans rectal core biopsy are taken at the same time as the ultrasound examination, supplementing with a bone scan, computed tomography (CT) or magnetic resonance imaging (MRI) and X-ray in specific circumstances. They further noted that primary treatment options are radical prostatectomy, hormone therapy, radiation therapy, and active surveillance,

which can lead to differences in specific areas of functioning, such as sexual, urinary or bowel functioning over time.

According to World Health Organization (2012), prostate cancer is the second most common malignancy in men which has an indolent but progressive clinical course. In North West Europe and the United States, it is the most common male cancer and the second common cause of cancer death (Arthur et. al., 2005). Prostate cancer is the most common cancer in men in Africa (Arthur et. al., 2005). In African countries such as Nigeria, Uganda, South Africa and Zimbabwe, it has been observed that the incidence of prostate cancer is increasing in people between the ages of 40 to 70 years (Arthur et. al., 2005). This assertion is true because many a time, elderly male patients in Ghana above 40 years do complain of a feeble urinary stream, hesitancy, dribbling, having to urinate frequently and urgently, feeling that they cannot empty their bladder completely and loss of libido.

The concept of quality of life differ from health, however it is related in that it is a broader construct encompassing Health related quality of life. According to Haugland (2013) quality of life is an umbrella term that includes various concepts such as functional status, perception, life conditions, behaviour, lifestyle and symptoms. Health related quality of life is defined as a multidimensional concept that encompasses the physical, emotional, and social components associated with an illness or treatment (Paterson, Jones & Lauder, 2013).

According to Oliveira, Santos, Rocha, Braga and Souza (2014) prostate cancer has an impact on the quality of life, in the biological, psychological and

social areas. These areas according to them are affected because of the fear of receiving the diagnosis of prostate cancer, fear of death, pain, the uncertainty of healing and recurrence, and the effects of the treatment indicated. These further result in low self-esteem thereby interrupting their plans for the future, and negatively impacting on economic and social development. Prostate cancer poses unique quality-of-life issues. According to Paterson, Jones and Lauder (2013), prostate cancer patients can have complex health needs that include chronic and enduring urinary, bowel, and sexual dysfunction for many years. This may consequently lead to diminished quality of life. Studies reviewed by Paterson, Jones and Lauder (2013) revealed that quality of life of prostate cancer is said to be influenced by a number of factors such as stress, emotional wellbeing, coping factors, one's level of social support, personality, age, self-esteem among others. For the purpose of this study, the focus is on social support and self-esteem as an influence of the quality of life of prostate cancer patients.

Social support in the opinion of Cobb (1976) as cited in Paterson, Jones and Lauder (2013) is the individual belief that, one is cared for and loved, esteemed and valued, and belongs to a network of communication and mutual obligations. They further viewed social support as the perceived availability of people whom the individual trusts and who make one feel cared for and valued as a person. Social support has been grouped into three namely: emotional, informational, and instrumental. Emotional support generally comes from family and close friends, and it is the most commonly recognized form of social support. It includes the provision of empathy, concern, care, love, and trust.

Informational support includes advice and suggestions from members of a person's network that may assist the person to respond to personal or situational demands. Instrumental support includes help in the form of money, time, practical assistance, and other explicit interventions (Paterson, Jones & Lauder, 2013).

According to Paterson, Jones, Rattray and Lauder (2013) survivors of prostate cancer have expressed a need for informational support, particularly regarding the side-effects of the disease, associated treatments and on-going issues related to recurrence. Therefore, increasing social support is one approach to address the complex physical and psychological needs for men affected by prostate cancer and by strengthening social support networks. This may improve coping efforts and health related quality of life.

Regarding the treatment of prostate cancer, Enfermagem (2015) asserts that, patients may have psychological problems such as changes in their self-esteem once their perception on body image is related to this new life condition. This psychological problem further compromises a person's quality of life because of feelings of low self-worth as a result of how the prostate cancer patient views himself. Self-esteem is therefore crucial because it is the cornerstone of positive attitude towards living and also it provides a foundation for dealing with life's many challenges which are faced by prostate cancer patients.

According to Erkut (2006), self-esteem is generally defined as the evaluation of the self and the judgement of one's worth. It is the sum total of one's self confidence, self-worth and self-respect. The fundamental nature of

self-esteem is based on understanding, accepting and liking oneself. Self-esteem changes in the course of life depending on the stage of the person's development and situations and events that occur during their life. Prostate cancer is one of these developmental problems that accounts for changes in self-esteem. Notwithstanding the problems associated with prostate cancer, self-esteem plays an important role in the process of experiencing and coping with disease and its treatment. However, Wojtyna, Życińsk and Stawiarska (2007) assert that self-esteem is a common experience among cancer patients, followed by decreased quality of life. This indicates that, self-esteem remains a significant tool in making a prostate cancer patient to feel in control of the problem and acts as an important variable in the assessment of the situation, as well as help the individual to adjust and cope with the condition.

The aforementioned indicates that prostate cancer is a serious health problem in Ghana, It is worth highlighting that patients may have their psychological balance threatened by necessary changes in the course of the disease and its treatments, which further result in diminished quality of life. There is therefore the need for social support and self-esteem to improve upon the quality of life of prostate cancer patients.

Statement of the Problem

Prostate cancer is a chronic disease that requires an ongoing support. When someone develops prostate cancer, its impact extends beyond the physical effects of the disease to include psychological, social and economic problems. Prostate cancer patients have complex health needs as a result of chronic and enduring side effects resulting from treatment. This assertion is

affirmed by Gilbert, Dunn, Wittmann and Montgomery(2015) that, although most men treated for prostate cancer experience favorable cancer outcomes, treatment is often associated with lasting functional and quality-of-life (QOL) impairments. For example, men treated surgically (prostatectomy) face a 10%-15% risk of problematic urinary incontinence. Andrew, Roth, Weinberger and Nelson (2008) also affirm that, major quality of life concerns in prostate cancer patients include urinary incontinence. Furthermore, Gilbert et al. (2015) further postulate that, men who undergo prostatectomy face greater than 50% risk of erectile dysfunction. Erectile dysfunction is a complication feared by many men diagnosed with prostate cancer.

Ideally, men with prostate cancer should have the needed support to help them to some extent, cope with the trauma associated with being diagnosed with prostate cancer, proper medical system, adequate screening materials as well as the side effects they experience from undergoing treatment such as chronic pain, changes in sexuality, bowel problems among others. However, the reality on the ground is that in Ghana, studies conducted by Obu (2014) indicate that the quality of life of prostate cancer is compromised due to factors such as poor medical system to support these individuals, poor treatment options such as herbal remedies, inadequate screening centers, lack of support groups among others contributing to the high mortality rate in Ghana. Moreover, Paterson, Jones and Lauder (2013) also affirm that this traumatizing condition requires social support to help cope with the physical and psychological sequel. Nevertheless, Paterson, Jones and Lauder (2013) assert that prostate cancer patients have unmet support needs which include psychological distress,

sexuality related issues and controlling of enduring lower urinary tract symptoms thereby resulting in patients coping on their own and which lead to their health being compromised.

According to the Ministry of Health in Ghana (2011) after hepatocellular cancer, prostate cancer is the second leading cause of male cancer deaths in Korle-Bu Teaching Hospital. In 2009, 185 new cases of prostate cancer were diagnosed at Korle-Bu teaching hospital with 37 deaths. The high mortality rate could be partly due to unmet needs and compromised quality of life as there appear to be a relationship between overall health and support needs. Paterson, Jones and Lauder (2013) suggest that highest unmet support needs have been identified with poor health outcomes. Therefore increasing social support is one approach to address the complex physical and psychological needs for men affected by prostate cancer.

In Africa including Ghana, epidemiological studies revealed by the Ministry of Health (2011) showed the following incidences of prostate cancer; Ghana 200/100,000, Nigeria 127/100,000, Cameroun 130/100,000. Obu (2014) has further affirmed that the Ghana News Agency has stated that Ghana has exceeded global prostate limits as the country records 200 cases out of every 100,000 men as against 170 world-wide. This could be due to several factors such as low awareness and lack of knowledge, perceptions, and negative attitudes toward prostate cancer as barriers to screening for Prostate Cancer and thus early detection of the disease. This has resulted in the disease being diagnosed at advanced stages which have no better treatment outcomes.

Moreover, most research work on social support and quality of life of prostate cancer patients appears to be limited to the Western World (Adams, Winger & Mosher, 2015; Haugland, 2013; Jonnson, 2009; Paterson, Jones & Lauder, 2013). In Ghana, related studies on prostate cancer studies have been conducted on perceptions and attitudes towards prostate cancer by Yeboah (2015). Obu (2014) also looked at factors that might influence mortality and quality of life of prostate cancer patient which generally mentioned social support as a factor however the extent to which social support influence quality of life of prostate cancer was not well established. Also, studies on prostate cancer in Ghana appears to be limited in Accra Metropolis, Kumasi Metropolis and Eastern Region with none of such studies conducted in other regions including Cape Coast Metropolis. The current study thus, attempts to investigate the influence of social support and self-esteem on the quality of life of prostate cancer patients in Cape Coast Metropolis and also because Cape Coast is the referral unit on prostate cancer cases for Western Region and Cape Coast.

Many research works have been done to establish the emotional aspect of Prostate Cancer treatment (Oliveira, Santos, Rocha, Braga & Souza , 2014; Oram, Nelson, Underwood & Kapoor, 2015), Clinical interventions in prostate cancer (Baumans & Bloch, 2011), Stress (Saung & Kim, 2015; Haugland 2013; Nielson, 2007) and social support in improving quality of life of prostate cancer patients (Coker 2006; Rivera 2018; Zoul 2010; Queenan et.al. 2010). In terms of self-esteem in improving quality of life of prostate cancer has not been well established which is a personal attribute in influencing quality of life of prostate cancer patients

Finally, it appears that little research has established the moderating and mediating role of social support on the quality of life of prostate cancer patients (Haugland, 2013; Zoul et.al, 2010). In Ghana, it appears no or little research on prostate cancer has been established on the moderating role of social support in the relationship between self-esteem and the quality of life of prostate cancer patients. This therefore calls for the need for social support and strengthening of the self-esteem of men with prostate cancer patients so as to be in a complete state of quality health and balance as well as the moderating role of social support in the relationship between self-esteem and the quality of life of prostate cancer patients. The current study thus, attempts to examine the influence of social support and self-esteem on the quality of life of prostate cancer patients.

Purpose of the Study

The main purpose of this study was to investigate the influence of social support and self-esteem on the quality of life of prostate cancer patients.

Objectives of the Study

The objectives of the study specifically intend to:

1. Determine the level of self-esteem of prostate cancer patients.
2. Determine the level of social support received by prostate cancer patients.
3. Determine the level of quality of life among prostate cancer patients.
4. Examine the relationship between social support and the quality of life of prostate cancer patients.
5. Investigate the relationship between self-esteem and the quality of life of prostate cancer patients.

6. Examine the role of social support and its moderating effect on self-esteem and the quality of life of prostate cancer patients.

Research Questions

The study was guided by the following research questions.

1. What is the level of self-esteem of prostate cancer patients?
2. What is the level of social support received by prostate cancer patients?
3. What is the level of quality of life among prostate cancer patients?

Research Hypotheses

The following hypotheses were tested.

1. **H_0**: There is no statistically significant relationship between social support and quality of life of prostate cancer patient.

   H_1: There is a statistically significant relationship between social support and quality of life of prostate cancer patients.

2. **H_0**: There is no statistically significant relationship between self-esteem and the quality of life of prostate cancer patients.

   H_1: There is a statistically significant relationship between self-esteem and the quality of life of prostate cancer patients.

3. **H_0**: Social support will not moderate the relationship between self-esteem and quality of life of prostate cancer patient.

   H_1: Social support will moderate the relationship between self-esteem and quality of life of prostate cancer patient.

Significance of the Study

It is envisaged that the study on the influence of social support and self-esteem on the quality of life of prostate cancer patients would be of tremendous

importance to the health system and especially to the realized need and importance of providing support for prostate cancer patients. Having a variety of positive social support can contribute to psychological and physical wellness of prostate cancer patients. Support from others can also be important in reducing stress, increasing physical health and defeating psychological problems such as depression and anxiety.

The findings of this study will also help patients strengthen their self-esteem by letting prostate cancer patients see the positive in every situation and help better cope with the situation. The study will also help spouses have better understanding of their husbands and accommodate them in terms of the sexual dysfunction they may encounter from treatment and by so doing create an atmosphere of harmonization and acceptance which can further help to improve the quality of life of men with prostate cancer.

Also, understanding the mechanism of how social support and self-esteem operate on quality of life overtime can help to identify men who are at high risk of inadequate social support and also those who perceive low self-esteem and suggest directions for interventions as they may be experiencing the most significant challenge.

Delimitation

The study is delimited to prostate cancer patients in Cape Coast only, specifically to those receiving medical treatment at Cape Coast Teaching hospital in the Central region of Ghana. The study is also delimited to prostate cancer patients who have been clinically diagnosed between stages 1-3. In addition, the study will cover outpatients receiving treatment whether in the

form of radiotherapy, prostatectomy, psychotherapy or chemotherapy. Finally, the study is delimited to health related quality of life of prostate cancer patients.

Limitation

The study encountered the following challenges which affected the outcome of the study:

1. Trauma the prostate cancer patient was going through at the time of conducting the research could not allow the person to fully participate in the research.
2. The study being a cohort study and not a longitudinal study could not help to measure or follow up for a number of years to determine the extent to which social support and self-esteem impacts on the quality of life of prostate cancer patients.
3. The study was conducted on prostate cancer patients in Cape Coast Teaching Hospital only. It therefore placed some restrictions on the generalization of the findings.

Operational Definition of Terms

Some words within the study are operationally defined as they are used in the context and scope of the research as follows;

Prostate cancer: Prostate cancer is the outgrowth of cancerous cells in the tiny glands in the prostate (American Cancer Society, 2014)

Social support: The individual belief that one is cared for and loved, esteemed and valued, and belongs to a network of communication and mutual obligations.

Self-esteem: It is the sum total of one's self confidence, self-worth and self-respect

Health related quality of life: Health related quality of life is defined as a multidimensional concept that encompasses the physical, emotional, and social components associated with an illness or treatment.

Organization of the Study

Chapter one (1) provides a general picture of a detailed background of the study, the research problem, purpose of the study, objectives of the study, research hypotheses, significance of the study, delimitation of the study, limitation of the study as well as definition of terms. Chapter two (2) reviews literature related to the study. Chapter three (3) focuses on methodology, which involves research design, population, sample and sampling procedure, instrument for data collection, data collection procedure and data analysis. Chapter four (4) presents and discusses the results whilst Chapter five (5) presents a summary, draws conclusions and makes recommendations on the basis of the results.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter of the study looks at relevant literature on the influence of social support and self-esteem on the quality of life of prostate cancer patients. Literature review has been organized according to theoretical framework, conceptual framework and empirical framework. Information was gathered from journals, abstracts, the internet, books, and works people have done on the influence of social support and self-esteem on the quality of life of prostate cancer patients.

Theoretical Review

The theoretical review underpinning quality of life is Health-related quality of life (Ferrans, Zerwic, Wilbue & Larson, 2005) which has five domains namely biological Function, symptoms, functional status, general health perceptions and overall quality of life. On social support, the main effect and stress buffering model by Cohen and Wills in 2000 was used which explained that social support is theorized to affect health through one of the two routes, that is, a direct main effect route or an indirect buffering route. Finally on the theory underpinning self-esteem is self-determination theory which was based on the assumption that people are active organism with evolved tendencies towards growing and mastering challenges whilst integrating these new experiences into a coherent sense of self. Details of these theories are described below.

Health- related quality of life (Ferrans, Zerwic, Wilbue & Larson, 2005).

According to Ferrans, Zerwic, Wilbue and Larson (2005), quality-of-life research has increased in methodologic rigor and sophistication. Nevertheless, progress has been hindered by the fact that the term "quality of life" has been used to mean a variety of different things, such as health status, physical functioning, symptoms, psychosocial adjustment, well-being, life satisfaction, and happiness. As a consequence, comparing findings across studies to draw conclusions or make application in practice is difficult. To help solve the problem, the term "health-related quality of life" (HRQoL) was introduced. This term was intended to narrow the focus to the effects of health, illness, and treatment on quality of life. This term excludes aspects of quality of life that are not related to health, such as cultural, political, or societal attributes. Examples are the quality of the environment, public safety, education, standard of living, transportation, political freedom, or cultural amenities. Guyatt, Feeny and Patrick (1993) postulate that unfortunately, the distinction between health-related and nonhealth-related quality of life cannot always be clearly made. For instance, air pollution contributes to chronic respiratory disease, and long dark winters contribute to seasonal affective disorder. In addition, in chronic illness almost all areas of life are affected by health, and so become "health-related"

Ferrans, Zerwic, Wilbur, and Larson (2005) published a revision of Wilson and Cleary's HRQOL model. The five major domains of the original model were retained. According to Ferrans et al., the model depicts dominant causal associations; however, reciprocal relationships are implied. An explicit

assumption is that understanding relationships among these components will lead to the design of optimally effective clinical interventions.

First, biological function (originally biological and physiological variables) is described as focusing on the function of cells, organs, and organ systems. Biological function is assessed through such indicators as laboratory tests, physical assessment, and medical diagnosis. Second, symptoms (originally symptom status), refers to physical, emotional, and cognitive symptoms perceived by a patient. Functional status, the third component, is composed of physical, psychological, social, and role function. Fourth, is general health perceptions, which refers to a subjective rating that includes all of the health concepts that precede it. Fifth, overall quality of life, is described as subjective well-being, which means how happy or satisfied someone is with life as a whole. The above five major domains of the conceptual model of health related quality of life is explained below:

Biological Function

According to the model, biological function (originally called biological and physiological variables) includes the dynamic processes that support life. Biological function is viewed broadly and encompasses molecular, cellular, and whole organ level processes. It can be described as a continuum of ideal function on one end and serious life-threatening pathological function at the other end. Alterations in biological function directly or indirectly affect all components of health, including symptoms, functional status, perceptions of health, and overall quality of life. Optimizing biological function is an integral part of holistic care. The revised model indicates the effects of individual and

environmental characteristics on biological functioning, which was not in the original model. The interaction of individual and environmental characteristics also influences biological function.

Effect of Individual Characteristics on Biological Function

Individual characteristics influence a person's biological vulnerability and resilience. Individual genetic characteristics influence biological functioning in congenital and hereditary diseases such as cystic fibrosis and sickle cell anemia. Genetic composition predisposes people to the development of many diseases, including inflammatory, degenerative, metabolic, and neoplastic diseases such as prostate cancer. Psychological characteristics, knowledge, and attitudes influence choices people make about lifestyle, ultimately affecting biological function. For example, self-efficacy for exercise influences exercise behavior and ultimately affects aerobic fitness and biological function.

Effects of Environmental Characteristics on Biological Function

Physical and social factors in the environment affect biologic function. For instance, dietary factors such as saturated fat, linolenic acid, red meat, dairy food (and/or calcium), Lycopene (tomato foods), legumes (including soy) can lead to prostate cancer.

Effects of Interactions between Individual and Environment

The emerging field of genomic science illustrates the effects of individual environment interactions on biologic function. Genomics is the study of the functions and interaction of all genes in the genome (Guttmacher & Collins, 2002), and the interaction of genes and environmental factors as it

applies to the expression of common disorders, such as Alzheimer's disease, colorectal cancer, prostate cancer, AIDS among others. For example, because of the gene environment interaction some life-long smokers develop chronic obstructive lung disease or lung cancer, but others do not. Because genetic characteristics cannot be altered, clinical interventions are directed toward modifying behaviors to reduce the risk of disease.

Symptoms

Wilson and Cleary (1995) indicated that moving attention from the biological and physiological variables to symptom variables requires a shift focus from cellular and organism level to a person level. They define symptoms as "a patient's perception of an abnormal physical, emotional, or cognitive state," which can be categorized as physical, psychological, or psychophysical. Instruments to measure symptoms can be classified as global measures, condition-specific measures, and symptom specific measures. Global measures are broad and include many varied symptoms. The Symptom Impact Inventory is an example of a global measure (Miller, Wilbur, Montgomery, Chandler, & Bezruczko, 2001). Condition-specific measures are focused on the symptoms associated with a particular condition and include the Chronic Respiratory Disease Questionnaire (Guyatt, Berman, & Townsend, 1987) and the Unstable Angina Symptom Questionnaire (DeVon & Zerwic, 2003). Symptom-specific measures pertain to a particular symptom, such as fatigue as measured with the Piper Fatigue Scale (Piper et al., 1989) or anxiety and depression as measured with the Hospital Anxiety and Depression Scale (Zigmond & Snaith, 1983).

The most common dimensions of symptoms that are measured include frequency, intensity, and distress. Other dimensions that have been incorporated in symptom measures include quality, cause, treatment, consequences, location, and timing. Instruments vary on which dimensions are included and several dimensions might be included in the same instrument. A variety of theories are focused primarily on symptoms. The Common Sense Model of Illness (Leventhal, Meyer, & Nerenz, 1980) is one theory focused on a person's somatic sensation and the process used to attribute the sensation to illness, external life stressors, or benign sensations. The person's cognitive representation of the symptom includes thoughts about its possible identity (such as sexual problems and urinary dysfunction in the case of prostate cancer), cause, consequence, progression, and cure. The experience, evaluation, and interpretation of symptoms are part of the characteristics of the individual and the environment. For example, Cameron & Leventhal (1995) found in a longitudinal study of community-dwelling middle-toolder aged adults that people who experienced symptoms combined with other stressful events reported more negative mood states, rated the symptoms as more serious, reported more distress about the symptoms, and experienced more disruption of daily activities than did people who experienced symptoms without the presence of stressful events. Thus the experience, evaluation, and interpretation of symptoms are influenced by complex interactions with both individual factors (such as knowledge and personality characteristics) and environmental factors (such as interactions with healthcare providers).

Functional Status

Wilson and Cleary (1995) defined functional status broadly, as the ability to perform tasks in multiple domains such as physical function, social function, role function, and psychological function. Functional status can be viewed from various perspectives. Traditional models pertain to functional status from the perspective of disability or disablement, focused on the loss of function and its effects on daily life (Stineman et al., 2005). Alternatively, in the revised model functional status is viewed as focusing on optimization of the function that remains.

Leidy's (1994) framework for functional status is an example of this perspective and it is a useful guide for health care. According to Leidy's framework, functional status includes four dimensions: functional capacity, functional performance, functional capacity utilization, and functional reserve (Leidy, 1994). Functional capacity is defined as one's maximal capacity to perform a specific task in the physical, social, psychological or cognitive domains. For example, functional capacity might be one's maximal ability in strength and endurance or in aptitude or memory. The second dimension, functional performance, refers to activities that one performs on a day-to-day basis. Functional performance is an integrated response and is determined by multiple factors, including personal choice, values, and motivation. Functional performance could be assessed by the level of physical activity and energy expended or as self-reported activities across multiple categories. Alternatively, functional performance could be measured by daily memory performance. Functional performance also could be influenced by functional capacity, as in

cases when reduced capacity limits performance of day-to-day activities. The third dimension, capacity utilization, refers to the percentage of functional capacity that is used day to day. The fourth dimension, functional reserve, refers to the difference between capacity utilization and functional capacity. People generally do not function at 100% of their capacity on a day-to-day basis, and people with high capacity might actually use only a small percentage of their capacity daily. When functional capacity declines because of health problems, a person might be required to use a higher percentage of capacity or to cut back on daily activities. Capacity utilization is closely related to functional reserve and indicates the unused potential. People with low capacity and very low functional performance could have a fairly large functional reserve. One commonly used measure of functional performance is the Functional Performance Inventory (FPI). Leidy (1999) developed the FPI with people who had COPD; it has the potential to be appropriate for other groups of people with chronic illness, such as chronic congestive heart failure. In addition, two scales from the SF-36 Health Survey (Ware & Sherbourne, 1992) have been used widely to measure functioning: the physical functioning and social functioning scales. The SF-36 is a generic measure that can be used with both healthy people and people with chronic illness. Many investigators also have used the Sickness Impact Profile to measure functional performance, but it is an indirect measure of functional performance and a direct measure of functional impairment. No instruments are established for the measurement of capacity utilization and functional reserve. Although the concepts of capacity utilization and functional reserve are not readily measured objectively, they are clinically meaningful and

could be measured subjectively. In the revised HRQoL model, multiple factors can affect functional status. For example, functional capacity can be directly affected by biological function and by symptoms, and functional performance can be affected by characteristics of the individual and the environment. In the case of people with prostate cancer, sexual functional capacity can be limited by desire for sex and by symptoms of pain during sexual intercourse. However, symptoms alone do not fully account for the decrease in functional capacity. If symptoms (pain during sex) are severe enough, they might interfere with day-to-day levels of activity, which might cause a patient to become sedentary and physically deconditioned (decline in functional status). But the extent of the decline in day-to-day activities also could be influenced by individual characteristics, such as self-efficacy and motivation for physical activity, or by social environmental factors, such as social support for physical activity and community safety.

General Health Perceptions

Wilson and Cleary (1995) pointed out two defining characteristics of general health perceptions: (a) they integrate all the components that come earlier in the model, and (b) they are subjective in nature. This component is a synthesis of all the various aspects of health in an overall evaluation. Supporting this idea is the finding that the strongest and most consistent predictors of general health perceptions are physiological processes, symptoms, and functional ability, based on a review of 39 studies of the general population (Bjorner et al., 1996). Although general health perceptions are influenced by the earlier components of the model, they nevertheless are different from the others.

Thus using measures of other components, such as functioning or symptoms, to assess general health perceptions is not appropriate. Instead, this component is most commonly measured with a single global question to ask people to rate their health on a Likert scale ranging from poor to excellent. Ratings of general health perceptions are used both as single-item measures and items in a battery, as in the SF-36 Health Survey (Ware & Sherbourne, 1992). When rating their health, people typically consider various aspects of their health, as well as the implicit importance of each. Further, men and women differed systematically when evaluating their health in general (Benyamini, Leventhal, & Leventhal, 2000). Men's health ratings pertained to serious, life-threatening diseases (such as cardiac disease), but women's health ratings included both life-threatening and nonlife-threatening disease (such as arthritis). In addition, gender differences were found in the effect of negative emotion on general health ratings. For men emotion was linked primarily to serious disease, and for women it was linked to a wider variety of life factors.

Overall Quality of Life

Overall quality of life, the final component of the model, was characterized by Wilson and Cleary (1995) as subjective well-being related to how happy or satisfied someone is with life as a whole. Over the past 30 years the concept of subjective well-being has developed considerably as a general area of scientific interest (Diener, Suh, Lucas, & Smith, 1999). Subjective well-being does not represent a single construct; it includes pleasant and unpleasant affect, global judgments of life satisfaction, and satisfaction with individual domains of life

(Diener et al., 1999). 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, family, social, and economic (Ferrans, 1996). This characterization is consistent with prevailing views of the domains of quality of life in literature, although the specific terminology varies somewhat among authors (Ferrans, 2005). Many theories and conceptual models have been proposed to explain the components of subjective well-being. Campbell, Converse, and Rodgers (1976) 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 Campbell et al. (1976), Wilson and Cleary (1995) emphasized how patients' values and preferences affect 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 values of respondents. Two examples are the Quality of Life Inventory (Frisch, 1993) and the Quality of Life Index (Ferrans & Powers, 1992; Ferrans, 1990).

Measuring the importance of various aspects of life also has an additional advantage. Concern has been expressed about the effect of "response shift," which is a change in internal standards and values in response to significant life events. These changes can occur as a result of cognitive, affective, and behavioral processes used to accommodate to illness (Sprangers & Schwartz, 1999). The implication is that changes in instrument scores might sometimes indicate changes in internal standards, rather than in the attribute of interest.

Main Effect and Stress Buffering Model (Cohen and Wills, 2000)

According to Cohen and Wills (2000), social support is theorized to affect health through one of two routes: an indirect, buffering, or mediational route and a direct, main-effects route. The stress-buffering hypothesis has been more frequently studied than the main-effects hypothesis. The stress-buffering hypothesis asserts that an individual's social network supplies the individual with the resources needed to cope with stressful events and situations.

Accordingly, the beneficiary aspects of support are only seen during stressful periods. That is, social support tends to attenuate (weaken) the relationships between stressful life events and negative physical or psychological difficulties, such as anxiety and depression. In the case of prostate cancer, instrumental, appraisal, emotional, informational, tangible and other forms of social support act as a cushion against the various life stressors experienced by these patients in terms of sexual dysfunction, bowel as well as urinary problems. In addition, proponents of the stress-buffering model believe that support will only be effective when there is good support-environment fit. That is when the type of support provided matches the situational demands of the individual. For example, having someone offer empathy and reassurance will be helpful when a person has lost a loved one, but receiving empathy may be useless when one is facing stresses associated with financial difficulties. Prostate cancer poses a number of quality of life issues such as sexual dysfunctions, bowel problems as well as urinary problems. (Andrew, Roth, Weinberger and Nelson, 2008). These problems above present lot of stress to the individual. As the stress buffering posits, social support can act as a cushion or buffer against these quality of life issues faced by individuals with prostate cancer. Paterson, Jones, Rattray and Lauder (2013) also postulated that increasing social support is one approach to address the complex physical and psychological needs for men affected by prostate cancer which can lead to a healthy quality of life.

Conversely, the main-effects hypothesis postulates that social support is beneficial whether one is going through a stressful event or not. The main-

effects hypothesis asserts that the extent of an individual's participation in the social network plays a vital role in the degree of social support benefits. In other words, there is a direct monotonic link between social support in one's social network and well-being. That is, the more support an individual has, the greater one's well-being (Cohen and Wills, 2000). In the instance of prostate cancer, social support is very beneficial to the individual whether the person is going through stressful situation whilst undergoing treatment or not. Regardless of stress, social support is very beneficial to the wellbeing and health of prostate cancer patients.

A related concept to social support is social integration. Social integration is defined as an individual's involvement in a wide variety of social relationships. Social integration can also refer to the quality of the social relationship. For example, negative social relationships could have negative effects on health, whereas positive social relationships and interactions usually have a beneficial effect on health and well-being. Previous research has demonstrated that social integration tends to be a main effect. That is, one's relationships with others may provide multiple avenues of information to influence health-related behaviors.

According to this theory, the presence of a support network has been found to reduce the negative effects of stress. The support of one's social network can act as a buffer to stress in many ways. A positive social support network can also increase an individual's self-esteem and self-efficacy. In addition, the support network may suggest solutions to current problems or stressors being faced. Having a support group can also alter perceptions of the

stressor by decreasing the perceived importance of the stress. Furthermore, having a supportive group of people surrounding a person can result in increased positive behaviors such as more exercise, proper rest, and better eating habits. Likewise, interactions with others may help distract attention from the problem.

As such, having a strong and stable support network is vital for the quality of life of prostate cancer patients and this may lessen the negative effects of stress as well as help the individual adapt to the stress.

Self Determination Theory (Ryan & Deci, 2000)

Self-Determination Theory (SDT) represents a broad framework for the study of human motivation and personality. SDT articulates a meta-theory for framing motivational studies, a formal theory that defines intrinsic and varied extrinsic sources of motivation, and a description of the respective roles of intrinsic and types of extrinsic motivation in cognitive and social development and in individual differences. Perhaps more importantly, SDT propositions also focus on how social and cultural factors facilitate or undermine people's sense of volition and initiative, in addition to their well-being and the quality of their performance. Conditions supporting the individual's experience of autonomy, competence, and relatedness are argued to foster the most volitional and high quality forms of motivation and engagement for activities, including enhanced performance, persistence, and creativity. In addition, SDT proposes that the degree to which any of these three psychological needs is unsupported or thwarted within a social context will have a robust detrimental impact on wellness in that setting. People are motivated from within, by interests, curiosity, care or abiding values. These intrinsic motivations are not necessarily

externally rewarded or supported, but nonetheless they can sustain passions, creativity, and sustained efforts. The interplay between the extrinsic forces acting on persons and the intrinsic motives and needs inherent in human nature is the territory of Self-Determination Theory.

Self-Determination Theory is an organismic dialectical approach. It begins with the assumption that people are active organisms, with evolved tendencies toward growing, mastering ambient challenges, and integrating new experiences into a coherent sense of self. These natural developmental tendencies do not, however, operate automatically, but instead require ongoing social nutriments and supports. That is, the social context can either support or thwart the natural tendencies toward active engagement and psychological growth, or it can catalyze lack of integration, defense, and fulfillment of need-substitutes. In other words, how a prostate cancer patient while undergoing treatment masters the various challenges and how the individual integrate these challenges into a coherent sense of self without losing their self-esteem and enhancing growth is influenced by ones social context in which they live. Thus, it is the dialectic between the active organism and the social context that is the basis for SDT's predictions about behaviour, experience, and development.

Within SDT, the nutriments for healthy development and functioning are specified using the concept of basic psychological needs for autonomy, competence, and relatedness. To the extent that the needs are ongoing satisfied, people will develop and function effectively and experience wellness, but to the extent that they are thwarted, people will more likely evidence ill-being and non-optimal functioning. The darker sides of human behavior and experience,

such as certain types of psychopathology, prejudice, and aggression are understood in terms of reactions to basic needs having been thwarted, either developmentally or proximally.

Empirical Review

This section dealt with the review of relevant findings obtained from other studies that had a bearing on this study. A review of various studies on social support and self-esteem on the quality of life of prostate cancer presented contrasting findings. These differences could be as a result of variations in the methodology used in the various studies as well as processes used by each study. For this study, social support and self-esteem on the quality of life of prostate cancer patients within Cape Coast Metropolis was studied.

Influence of Social Support on the Quality of life of Prostate Cancer Patients.

Existing literature shows that there is a strong and positive relationship between social support and quality of life of prostate cancer patients. For instance, Imm, Williams, Housten, Colditz, Drake, Gilbert and Yang (2017) examined the African American prostate cancer survivorship experience following radical prostatectomy and factors contributing to quality of life during survival. Emergent themes included views of prostate cancer in the African American community, perceptions of normalcy, emotional side effects following radical prostatectomy, and social support involvement as well as impact during recovery. Findings suggested that African American men may experience more distress than Caucasian men when facing typical prostate cancer side effects and that strengthening social support systems by promoting

more prosocial coping and help-seeking behaviors early in the survivorship journey may help bypass the detrimental health effects associated with masculine role identification, resulting in improved quality of life throughout the lengthy survival period anticipated for these men. Given the fact that African American men share a number of similarities with African men, there is the likelihood, based on the above findings, that African men (including prostate cancer patients at the Cape Coast Teaching Hospital) who are undergoing prostate cancer treatment may also exhibit greater need for social support to increase survivorship of the disease. This assumption is what the current study is especially interested in testing.

Similarly, Queenan, Feldman-Stewart, Brundage and Groome (2010) investigated social support and quality of life of prostate cancer patients after radiotherapy treatment. The study conducted was a cross-sectional survey and a detailed chart review. The study population was men attending a follow-up clinic after receiving radiotherapy for prostate cancer. Functional social support (FSS) was measured by using the MOS Social Support Survey. Structural social support (SSS) was measured by using questions adapted from the 1994–1995 National Population Health Survey conducted by Statistics Canada. Health-related quality of life was measured using the European Organization for Research and Treatment of Cancer's QLQ-C30. The study found a statistically significant positive correlation between FSS and HRQOL but no association between overall SSS and HRQOL. Worsening urinary symptoms were significantly associated with lower levels of FSS and with lower HRQOL. This study underscores that the perception of support (functional) is more important

than the amount or size of support (structural). The present study however seeks to evaluate social support in terms of appraisal, tangible, self- esteem as well as belonging support and not in terms of functional and structural support. This current study is similar in its methodology and its study design and also seeks to find if there is a relationship between social support and quality of life

To further support claims made by Queenan et al. (2010), Zoul et al. (2010) also investigated how social support and coping impact emotional well-being two years after treatment in survivors of localized prostate cancer who have received either radical prostatectomy or radiotherapy. Psychosocial and disease-specific measures were administered to an ethnically and demographically diverse sample of 180 men treated for localized prostate cancer at baseline and at 2-year follow-up. Regression analyses demonstrated that higher levels of social support at baseline predicted better emotional well-being 2 years later. Furthermore, higher levels of adaptive coping at baseline partially mediated the relationship between social support and emotional well-being. Supportive relationships may contribute to improved emotional well-being following treatment by facilitating the use of adaptive coping strategies. The study concluded that, attention should be given to strengthening social support networks and educating survivors of prostate cancer on adaptive coping techniques.

Additionally, Roberts and colleagues (2006) identified perceived social support (Time 1, several months after treatment) and HRQoL (Time 2, 3 months follow-up) was moderated by psychological adjustment (Time 1) (Sobels test, Z ¼ 2.84, p ¼ 0.004). This data suggests that perceived social support was

related to HRQoL because of psychological adjustment. A further study (Zhou et al., 2010b) found a similar moderating effect in that social support and HRQoL was partially moderated by positive coping (Sobels test, Z ¼ _2.29, p < .05). Therefore, this suggests that social support may be related to HRQoL because of improved coping efforts. Accordingly, the present study also intends to test the nature social support and its moderating relationship between self-esteem and quality of life to ascertain whether conclusions drawn by other scholars such as Roberts and Colleagues replicate in the Ghanaian context.

Moreover, Schroevers, Ranchor and Sanderman (2003) focused on a longitudinal study in the Netherlands to determine the role of social support and positive and negative self-esteem in depressive symptoms in 475 recently diagnosed cancer patients and 255 individuals without cancer from the general population. Patients and the comparison group were interviewed and filled in a questionnaire at two points in time: 3 months (T1) and 15 months (T2) after diagnosis. Regression analyses showed that social support and self-esteem were independently related to depressive symptoms (concurrently), such that lower levels of social support and self-esteem were strongly associated with higher levels of depressive symptoms. A longitudinal analysis showed that social support and self-esteem also predicted future levels of depressive symptoms, although the explained variance was much lower than in a cross-sectional analysis.

Likewise, Stam, Aaronson, Pos, Bosch, Kieffer, Tillier and Poel (2016) examined the impact of salvage radiotherapy (SRT) and its timing on health-related quality of life (HRQoL) in prostate cancer patients. The objective of the

study was to compare the HRQoL of patients who underwent SRT with that of patients who underwent radical prostatectomy (RP) only and to investigate whether SRT timing is associated with HRQoL. All SRT patients (n = 241) and all RP-only patients (n = 1005) were selected from a prospective database (2004–2015). The database contained HRQoL and prostate problem assessments up to 2 years after last treatment. Mixed effects growth modelling adjusting for significant differences in patient characteristics and baseline HRQoL was used to analyze the association between: (1) ‘‘treatment’’ (RP-only vs SRT) and (2) ‘‘timing of SRT’’ with changes in HRQoL. Here also, results indicated that, SRT patients showed significantly ($p < 0.05$) poorer recovery from urinary, bowel, and erectile function after their last treatment (clinically meaningful difference for urinary and erectile function). Patients with a longer interval between RP and SRT reported significantly better sexual satisfaction after SRT ($p = 0.02$), and a better urinary function recovery ($p = 0.03$). The study concluded that up to 2 years after treatment, SRT patients reported poorer HRQoL in several HRQoL domains compared with RP-only patients, but not in overall HRQoL. Delaying the start of SRT after RP may limit the incidence and duration of urinary and sexual problems. Nevertheless, decisions regarding SRT timing should also be based on the potential benefits in disease recurrence

Influence of Self-esteem on the Quality of Life of Prostate Cancer Patients.

Again, evidence from existing literature indicates a significant relationship between self-esteem and quality of life of prostate cancer patients. In support of this assertion, Jonsson (2009) investigated prostate cancer and its influence on men’s lives when undergoing examinations for suspected prostate

cancer and diagnosed with prostate cancer as well as to understand if prostate cancer affects the men's daily lives. Data from qualitative interviews using four papers were analyzed by Gadamer´s hermeneutics. In paper one, eleven men undergoing routine examination for prostate cancer (transrectal ultrasound and biopsy), but diagnosed as having benign disease were interviewed. At the time of the prostate cancer examination, the men did not feel fatigue. In paper two, sixteen men newly (within 2-4 weeks) diagnosed as having localized prostate cancer and with a prostate-specific antigen level of <10 ng/ml and untreated at the time of the interview. Most of the men did not experience fatigue due to the diagnosis but experienced every day fatigue and cancer influenced the men´s daily lives. The men felt healthy. In paper three, ten men newly (within 2-4 weeks) diagnosed as having advanced prostate cancer PSA of > 100 ng/ml and treated for no more than 2 weeks at the time of the interview participated. The men did not experience fatigue due to advanced prostate cancer but they experienced normal every day fatigue. The study concluded that personality and anxiety contributed to fatigue when undergoing examination for suspected prostate cancer. The follow-up study confirmed the men´s view that age influences them, they live with uncertainty but with strengthened self-esteem, finding a balance in a changed life situation limits the influence of the condition on their daily lives. This finding suggests that self-esteem of prostate cancer patients is very important since it is able to mitigate the stress and discomfort associated with prostate cancer treatment.

Correspondingly, a study by Mata, Chavez, Faria, Antunes, Silva and Oliveira (2017) evaluated patients in postoperative cancer surgery, the presence

of distress and changes in self-esteem, and their possible relationship to the surgical treatment. Hundred (100) patients participated with an average age of 59.56 years. The distress and self-esteem variables were significantly correlated. The study concluded that the better the level of self-esteem, the lower the distress. Drawing similarities between this study and the current study, it is assumed that there exists some kind of a relationship between self-esteem and the quality of life of prostate cancer patients. This study specifically sought to also find out if there exist a relationship between self-esteem and quality of life and to determine whether high or low self- esteem can impede the quality of life of prostate cancer patients.

As well, Pintado (2017) analyzed the relationship between self-concept and emotional wellbeing of breast cancer patients. The sample consisted of 131 women diagnosed with breast cancer. Results indicated that, emotional well-being is influenced by alterations on self-concept. Patients who had more alterations in body image and less self-esteem and self-efficacy, had higher levels of anxiety and depression. This finding shows that self-concept is an important variable which predicate emotional wellbeing of cancer patients undergoing treatment thus Pintado's (2017) study confirms claims made by Jonsson (2009).

Concept of Prostate Cancer

Prostate cancer is a disease in which normal cells in a man's prostate gland change and grow out of control, forming a tumor. According to the American Cancer Society (2001) prostate cancer is the most common solid tumor malignancy and the second leading cause of cancer death in American

men. It is also one of the most common malignancies in European men (Borghede et al., 1997; Curran et al., 1997). Prostate cancer remains one of the least understood and prevalent of all human malignancy. Pathological evidence suggests that neoplastic changes of the prostate begin early in a man's adult life, but do not become clinically evident until years later. Some patients live out their lives with a prostate cancer without treatment for several years. In other instances, the cancer grows uncontrollably, responds slowly to treatment and causes demise within a short time. Thus, some prostate cancers grow very slowly and may not cause symptoms for years.

According to Wei and Uzzo (2002), prostate cancer is heterogeneous ranging from a benign and indolent course to one that rapidly progresses, causing significant morbidity and mortality. Prostate cancer is primarily a disease of the elderly men. According to Parkin et al. (2005), prostate cancer usually occurs in men over the ages of 65 years. The disease is the second most common cancer in the world and the second in importance in men. The low fatality rate means that many men are alive following a diagnosis of prostate cancer, making this the most prevalent form of cancer in men. (Parkin et al., 2005).

The prostate is a walnut-sized gland located behind the base of the penis, in front of the rectum, and below the bladder. It surrounds the urethra, the tube-like channel that carries urine and semen through the penis. The prostate makes seminal fluid, the liquid in semen that protects, supports, and helps transport sperm. The stage is a way of describing where the cancer is located, if or where it has spread, and whether it is affecting other parts of the body. There are four

stages of prostate cancer. These range from stage I through to stage IV (1 through 4). Prostate cancer is also given a grade called a Gleason score or Gleason group.

Screening and Diagnosis for Prostate Cancer

Saskatchewan Prostate Assessment Pathway (2016), describe the methods used in screening and diagnosing prostate cancer.

Digital Rectal Exam

Digital rectal exam (DRE) can be used to detect a cancer and determine whether it is confined to the prostate. Because the prostate lies in front of the rectum, a physician can feel it by inserting a gloved, lubricated finger into the rectum. The DRE is not always accurate. Many prostate cancers are situated deeper in the gland or are too small for detection, and not all prostate 'lumps' are cancerous. Once a cancer can be felt as a lump, it is considered more advanced than when detected only by a prostate-specific antigen (PSA) blood test.

Prostate-specific antigen (PSA)

Prostate-specific antigen (PSA) is a protein produced by both normal and cancerous prostate cells. When prostate cancer grows or when other prostate diseases such as enlargement or inflammation of the prostate are present, the amount of PSA in the blood may increase. The PSA also increases with age. If a person's PSA level is in the high range or has increased since a prior test, a physician usually recommends a prostate biopsy.

Percent-Free PSA Ratio

This blood test measures how much PSA circulates by itself (unbound) in the blood and how much is mixed with other blood proteins. If PSA results are elevated and percent-free PSA ratio is low (10% or less), then prostate cancer is more likely to be present and a biopsy may be needed.

Ultrasound

Transrectal ultrasonography (TRUS) is the most direct way to see the prostate gland. Ultrasound provides an image that can be used to measure the size of the prostate and can sometimes detect suspicious tissue. TRUS is almost always done in combination with a biopsy. Needle biopsies of the prostate are always done using an ultrasound for guidance.

Biopsy and the Gleason System

A prostate biopsy removes small pieces of tissue from the prostate gland. Typically, between 10 and 12 biopsies are taken using a core biopsy needle. A pathologist will look at the prostate tissue under a microscope to compare cancerous tissue to normal tissue and establish a diagnosis of prostate cancer. When a tumour is discovered, the pathologist assigns a Gleason score or "grade" to the tissue, which reflects the aggressiveness of the cancer. If the cancerous cells appear to resemble the normal prostate tissue, they are said to be well differentiated and considered to be Gleason grade 1 to 3. This means the tumour is not expected to be fast growing. On the other hand, if the cells in question look fairly irregular and different from normal prostate cells, then they are poorly differentiated and are assigned a Gleason grade of 4 to 5.

Treatment of Prostate Cancer

According to American Society of Clinical Oncology (2017) the treatment of prostate cancer depends on the size and location of the tumor, whether the cancer has spread, and the individuals overall health. They further postulate that, active surveillance is recommended if the prostate cancer is found at an early stage and is growing slowly. This means the cancer is closely monitored and active treatment begins only when the cancer shows signs of spreading, causes pain, or blocks the urinary tract. For early-stage prostate cancer, treatment options include surgery or radiation therapy. According to Fleming et. al. (1993) watchful waiting is often a reasonable choice for older men with early-stage, low-grade disease and few or no complications, because prostate cancer can be a slow-growing malignancy.

According to Eton and Lepore (2008), therapeutic options for localized disease include surgical and non-surgical approaches. Surgical approaches include radical prostatectomy, transurethral resection of the prostate, and cryosurgery. Radical prostatectomy, including the nerve-sparing approach, involves surgical removal of the entire prostate and is used mainly when it is believed that the cancer has not spread outside of the gland. Transurethral resection of the prostate involves surgical removal of prostate tissue that surrounds the urethra and is mostly used with men who cannot have radical surgery due to other health complications or advanced age. Cryosurgery, which involves freezing malignant areas of the prostate with cooled metal probes, is used by a small proportion of men who are interested in a less aggressive form of surgery.

For men with a larger tumor or cancer that is more likely to return, hormone therapy, or androgen deprivation therapy (ADT), may be given before surgery or radiation therapy may be given after surgery. (American Society of Clinical Oncology, 2017). Several months of ADT may also be combined with radiation therapy. Radiation therapy is commonly used when prostate cancer is localized to the prostate and the surrounding region. External beam radiotherapy (EBR) makes use of high-energy X-rays or radioactive particles generated outside of the body and focused on the malignancy. EBR can cover the broad area of the pelvis or be stereotaxically conformed to a specified region, thereby reducing the likelihood of damage to surrounding tissue. Internal irradiation, or brachytherapy, utilizes small radioactive pellets that are implanted directly into the prostate.

Hormone therapies and chemotherapy are options for men with advanced prostate cancer. Hormone therapies help to reduce the levels of circulating androgens. Androgen can promote the growth of malignant prostate cancer cells. Surgical and non-surgical hormone therapies exist. Orchiectomy involves the surgical removal of the testicles. It physically eliminates the primary source of androgen in the body. Pharmacological hormone therapies can achieve essentially the same end without surgery. Luteinizing hormone-releasing hormone (LHRH) analogs are used to interrupt testosterone production. Another class of drugs, anti-androgens, are used to block the body's ability to use androgen. Anti-androgens can be combined with either orchiectomy or LHRH analog to completely block androgen activity. Finally, chemotherapy is an option for a select few men who have prostate cancer that

has metastasized and for whom hormone therapy has failed. Like hormone therapy, the aim of chemotherapy is to stop the spread of the disease and reduce physical complications such as bone pain.

According to Saskatchewan Prostate Assessment Pathway (2016), lymph node dissection is one other treatment modality for prostate cancer. The lymph nodes are often the first location where prostate cancer spreads. A physician can usually estimate the likelihood that cancer has spread to the lymph nodes based on a rectal examination, PSA, and biopsy result. If it is likely that cancer has spread to the lymph nodes, the physician may surgically sample, remove and examine the lymph nodes under a microscope. This is often done during a radical prostatectomy in some intermediate and most high risk cases.

Concept of Social Support

Social support has been documented as playing an important and positive role in the health and well-being of individuals. Social support in the narrow sense has been defined in various ways. Cohen and colleagues refer to social support as "any process through which social relationships might promote health and well-being" (Cohen et al., 2000). Social support also refers to the function and quality of social relationships, such as perceived availability of help or support actually received. It occurs through an interactive process and can be related to altruism, a sense of obligation, and the perception of reciprocity (Schwarzer & Leppin, 1991). It may as well be regarded as resources provided by others, as coping assistance or as an exchange of resources. Several types of social support have been investigated, such as instrumental (assist with a problem), tangible (donating goods), informational (giving advice), and

emotional (giving reassurance), among others. Rook (1990) contends that health and well-being are not merely the result of actual support provision, but are the consequence of participation in a meaningful social context. Receiving support gives meaning to individuals' lives by virtue of motivating them to give in return, to feel obligated, and to be attached to their ties. Rook (1990) uses the term companionship to refer to such a harmonious network of mutual support and obligation. Being embedded in a positive social world might be more powerful than receiving help.

The most common forms of social support are perceived support and received support. Perceived support may pertain to anticipating help in time of need, and received support pertains to help provided within a given period of time. The former is often prospective, the latter always retrospective. This is an essential distinction because these two constructs need not necessarily have much in common. According to Sarason (1983) expecting support in the future appears to be a stable personality trait that is intertwined with optimism, whereas support provided in the past is based on actual circumstances. To which degree this distinction emerges empirically also depends on the amount of specificity in the item wordings. The more diffuse and general the questions are, the more the responses may be influenced by the respondents' personality characteristics.

In general, associations between social support and health can be due to direct or indirect effects of social support, and these in turn can be beneficial or detrimental to health. Direct effects refer to social factors being related to health-related outcomes without being further mediated by other variables.

Indirect effects, however, involve a third variable that mediates the predictor and the health outcome. Also, it has been postulated that social support might reveal its beneficial effect on health only in times of distress, insofar as it serves as a buffer to the negative impact of stressful events that people encounter. This moderating impact is known as the stress- buffering effect (Schwarzer & Leppin, 1991).

Moreover, physiological, behavioural and psychological mechanisms have been discussed as potential pathways linking both functional and structural support to illness and subsequent mortality. Among the multiple physiological pathways linking social support to health outcomes and the progression of illness, the focus has been on the cardiovascular, immune, and neuroendocrine systems. Loss and bereavement, for instance, are followed by immune depression, which may compromise natural killer cell activity and cellular immunity (Herbert & Cohen, 1993; Uchino, Cacioppo, & Kiecolt-Glaser, 1996). This, in turn, reduces overall host resistance, so that the individual becomes more susceptible to a variety of diseases, including infections and cancer.

Concept of Self -Esteem

According to Erkut (2006), self-esteem has been generally defined as the evaluation of the self. It is an effective response to one's self-description. Smith and Mackie (2007) also defined it by saying "The self-concept is what we think about the self; self-esteem is the positive or negative evaluations of the self, as in how we feel about it". In every day terms, self-esteem can be expressed in "I like who I am," "I don't like who I am," or someplace in between

these two end points. In this sense, related words such as self-confidence, self-worth, self-image, and positive self-regard can be used interchangeably. This focus on affect (different degrees of feeling good about one's self) in the definition of self-esteem has its roots in William James' (1892) views, which emphasized that self-evaluation is influenced by one's self-perceived competencies in important domains. Embedded in James' view of self-esteem is measuring up to an internal standard in arenas deemed important by the individual. According to James, self-esteem is a reflection of how good one believes one is in fields that are important.

The intellectual legacy of William James and social interaction theorists has been most influential in formulations of self-esteem as an individual personality trait. Self-esteem as an enduring trait is believed to have wide relevance to how people behave, think, and feel in societies that are variously called independence-fostering or individualistic.

Tafarodi and Swann (1995) postulate that our self-esteem is determined by many factors, including how well we view our own performance and appearance, and how satisfied we are with our relationships with other people. Self-esteem is also influenced by a number of factors such as age. Robins, Trzesniewski, Tracy, Gosling and Potter (2002) found that self-esteem tends to decrease from childhood to early adolescence, and then rises steadily from adolescence into adulthood, usually until people are well into their sixties, after which point it begins to decline.

One interesting implication of this is that we often will have higher self-esteem later in life than in our early adulthood years, which would appear to run

against ageist stereotypes that older adults have lower self-worth. In a study conducted by Ryff (1991) suggests that this may well be the case. In this study, elderly adults rated their current and ideal selves as more similar than either middle-aged or young adults. In part, older adults are able to more closely align these two selves because they are better able to realistically adjust their ideal standards as they age (Rothermund & Brandstadter, 2003) and because they engage in more favorable and age-appropriate social comparisons than do younger adults (Helgeson & Mickelson, 2000). This is true of prostate cancer patients owing to the fact that prostate cancer poses a number of quality of life issues and changes in their physiology which was not originally the case. These changes such as urinary problems, changes in sexuality and bowel problems affect their self-esteem as a result of not being as they used to be when they were younger.

Concept of Quality of Life

Prostate cancer continues to be one of the most common cancers diagnosed in men. In light of the excellent survival rates for prostate cancer, quality of life is a primary concern during and following prostate cancer treatment. Quality of life is defined and determined in multiple ways. There is no consensus regarding what is quality of life. Quality of life is not a unitary concept. QOL is a complex, multifaceted concept which continues to defy consensual definition and has multiple interpretations.

According to Ferrans (2005) quality of life is a multidimensional construct generally consisting of physical, psychological, and social dimensions. Quality of life is the general well-being of individuals and societies,

outlining negative and positive features of life. 'Quality of life'('QOL') is an overarching term for the quality of the various domains in life. It observes life satisfaction, including everything from physical health, family, education, employment, wealth, safety, security to freedom, religious beliefs, and the environment.

Albaugh and Hacker (2007) postulate that individuals with prostate cancer face difficult decision when choosing treatment options, such as radical prostatectomy, robotic-assisted laparoscopic prostatectomy, external beam radiation, brachytherapy (radiation seed implants), hormone ablation therapy, or the watchful waiting approach. The potential cure for the disease must be weighed along with the potential impact of treatment on quality of life. All prostate cancer treatments carry the risk of side effects that compromise quality of life. For instance, prostate surgery and radiation therapy are considered potentially curative for organ contained prostate cancer, although both treatment modalities may result in sexual dysfunction and/or bowel and urinary issues. Hormone ablation is considered palliative and is associated with sexual dysfunction, hot flashes, weight gain, fatigue, sleep disturbances, and osteoporosis (Penson & Litwin, 2003).

Quality of life has been conceptualized as normal functioning, social usefulness, general well-being, and ability to fulfill life’s goals, and happiness and life satisfaction (Ferrans, 2005). Although these conceptualizations differ, the notion that quality of life is individually experienced is a common thread. Conceptualizing quality of life from a life satisfaction point of view is common in the cancer research literature and is appropriate for use in men with prostate

cancer. Wilson and Cleary (1995) and Ferrans, Zerwic, Wilbur, and Larson (2005) developed models that conceptualize quality of life in terms of life satisfaction. Life satisfaction captures the personal view of the individual and reflects an evaluation of his or her contentment with various aspects of life, such as level of functioning, symptoms, health status, happiness, and ability to fulfill goals (Ferrans, 1990). In men with prostate cancer, various aspects of life may be affected by cancer and its treatment, and that impact may influence satisfaction with various aspects of life.

According to Albaugh and Hacker (2007) men who have clinically localized prostate cancer and an excellent prognosis may have different quality-of-life issues than men with metastatic prostate cancer who are dealing with end-of-life issues and bone pain. For survivors who may struggle with the side effects of treatment for many years, sexual, bladder, and bowel functioning may be strong influences on quality of life. For men at the end of life, satisfaction with health status, wellbeing, and the ability to find meaning in life may be important influences. Aspects of life important to men with prostate cancer may differ as the disease manifests and survival outcomes vary.

Conceptual Framework

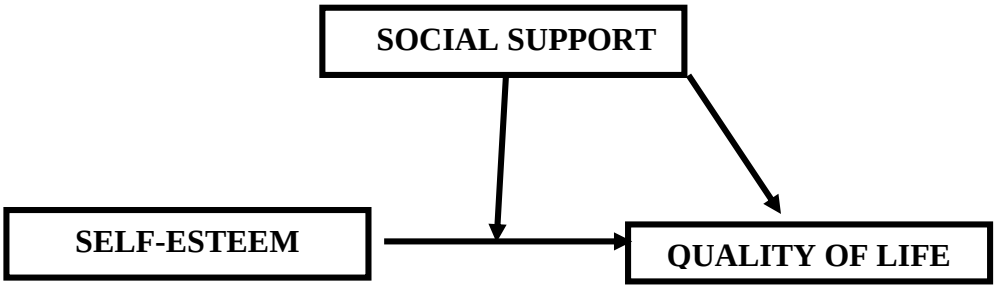

Figure 1: Relationships among social support, self-esteem and quality of life.

Source: Oteng, 2019

Chapter Summary

The literature gave an explicit insight and different studies on how social support and self-esteem influence the quality of life of prostate cancer patients. The conceptual framework focused on the concept of prostate cancer, screening and diagnosis for prostate cancer, treatment of prostate cancer, concept of social support, relationship between social support and quality of life, concept of self-esteem and the concept of quality of life. The result of these concepts is what the study set out to achieve. In most of the literature on social support and quality of life, it was discovered that the level of strength of prostate cancer patient's social support affects his quality of life thus, the higher the support, the better one's quality of life. With respect to self- esteem on the quality of life, despite contrasting views, a lot of findings revealed that better self- esteem improves the quality of life of prostate cancer patients.

CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter explains the research design appropriate for the study as well as the target population, sample and sampling techniques, instruments used in gathering the data and the procedure followed in conducting the research. The ethical consideration on which the research hinges has been presented and the data analysis per hypotheses has also been presented.

The appropriate method used to answer the research questions with respect to the aim of the research has been presented in this chapter.

Research Design

The researcher employed descriptive survey design for the study. According to Koul (2009), descriptive research involves measurement, classification, analysis, comparison and interpretation. It collects three types of information which include what is in existence, comparing what exist with the norm or desirable, and how to achieve goals. Even though descriptive research is considered primitive, it is able to provide information to solve problems and at times, provide data to form the basis of another research. Descriptive research actually involves events that had happened and are related to the current happenings. Descriptive research varies greatly in complexity. At one instance, it constitutes frequency account of events to study of local problems without any significant research purpose. At another instance, it attempts to ascertain significant interrelationships among phenomena (Koul, 2009).

Quantitative data is defined as the value of data in the form of counts or numbers where each data-set has a unique numerical value associated with it. Quantitative data is used to answer questions such as "How many?", "How often?", How much?" Quantitative data is used to quantify attitude, opinions, behaviour and other defined variables and generalising results from a larger population. The advantage here is that it gives accurate quantitative numerical data, it helps obtain data that allows quantitative prediction to be made and also helps study large numbers of people.

Study Area

Central Region is known in Ghana as a hub of prominent educational institutions. According to the Ghana Statistical Service (GSS, 2013), Cape Coast Metropolis is the only Metropolis among the 20 districts in the Central Region. The Cape Coast Metropolitan Assembly was formerly known as Cape Coast Municipal. It was raised to the status of municipality in 1987 by LI 1373 and upgraded to Metropolitan status in 2007 by LI 1927. The Metropolis is bound to the South by the Gulf of Guinea, to the West by Komenda Edina Eguafo Abrem Municipality (at Iture bridge), to the East by the Abura Asebu Kwamankese District, and to the North by the Twifu Heman Lower Denkyira District. It is located on longitude 115' W and latitude 506'N. It occupies an area of approximately 122 square kilometers, with the farthest point at Brabedze located about 17 kilometers from Cape Coast, the Central Regional capital of Ghana. The population of the Cape Coast Metropolis, according to the 2010 Population and Housing Census, is 169,894 representing 7.7 percent of the region's total population. Cape Coast is endowed with many schools across the

length and breadth of the Metropolis, ranging from basic to tertiary institutions (Ghana Statistical Service, 2013).

Population

Babbie (2014) has argued that a target or theoretical population refers to the group about whom a researcher hopes to generalize findings. Whereas a study population constitutes the actual sampling frame from which a sample is drawn. The target population was useful in determining the appropriate participants to be considered since members of the population from which the sample was drawn were a medically diagnosed one, hence ascertaining the veracity of the representative sample.

The target population for this research therefore constituted all diagnosed prostate cancer patients in Cape Coast undergoing treatment. The study population however, was prostate cancer patients in Cape Coast who are receiving treatment at the Cape Coast Teaching Hospital. The target population was One Hundred and Thirty (130) prostate cancer patients who have been medically diagnosed and are currently undergoing prostate cancer treatment at the Cape Coast Teaching Hospital. (Cape Coast Teaching Hospital Records, 2019). Out of this number, a sample was drawn to participate in the study.

Sample and Sampling Procedure

According to Amedahe (2000) sampling involves the process of selecting a portion of the population to represent the entire population. Wahyuni (2012) postulates that, a sample enables the researcher to study a relatively smaller number of units in place of the target population and to obtain data that are representative of the target population.

Going by Krejcie and Morgan (1970) who developed a tabulated formula for determining sample size which indicated that with a population of One Hundred and Thirty (130), a sample of Ninety- Seven (97) should be used. The researcher therefore used a sample size of Ninety-Seven (97) participants since it targeted a population size of about One Hundred and Thirty (130). The demographic data of the sample included participants' age and marital status.

A probability sampling technique particularly, simple random sampling was adopted. According to Babbie (2014), quantitative researchers usually employ probability sampling procedures since these increase the chances that the sample will be more representative of the population hence, findings could be generalized. Simple Random Sampling was also used so as to enable each prostate cancer patient who is diagnosed and undergoing treatment at the Cape Coast Teaching Hospital have an equal chance of being selected. The researcher got the list of all the 130 patients diagnosed and being treated of prostate cancer at the Cape Coast Teaching Hospital Records Unit. Hundred (100) patients were randomly picked and were made to respond to the survey instrument.

Inclusion Criteria

The inclusion criteria for the study included prostate cancer patients receiving treatment at Cape Coast Teaching Hospital. The participant must be between stage one to three prostate cancer patients. The participant should have no comorbidity with other conditions other than the prostate cancer so that it does not influence the result of the study. Finally, the participant must be receiving outpatient treatment.

Exclusion Criteria

The exclusion criteria for the study was prostate cancer patients who are in stage four. Moreover, the study will exclude prostate cancer patients with other comorbidities like hypertension or diabetes.

Data Collection Instruments

Instruments are the tools which a researcher uses to collect data. A set of questionnaires for the quantitative method was employed after examining the research questions. Section A of the questionnaire was to solicit demographic information of participants. Koul (2009) citing Goode and Hatt (1952) stated that questionnaire refers to a device aimed at securing answers to a series of questions by using a form which the respondent fills himself. Three instruments used in this study are presented below

Quality of Life Scale (European Organization for Research and Treatment of Cancer, 2014)

European Organization for Research and Treatment of Cancer Quality of Life Questionnaire (EORTC QLQ PR 25) was adopted and used to assess the quality of life of prostate cancer patients. The Quality of Life Questionnaire EORTC QLQ PR 25 is a tool commonly applied worldwide to examine the quality of life of patients with prostate cancer varying in disease stage and treatment modality that is in surgery, chemotherapy and radiotherapy. It is a 25 items questionnaire which has two dimensions of life quality evaluation. The first dimension reflects functional scales whereas the second dimension reflects symptoms scale. It includes subscales assessing urinary symptoms (nine items), bowel symptoms (four items), treatment related symptoms (six items) and

sexual functioning (six items). Items are answered on a four point scale. According to Paiva (2014) the reliability coefficient of Quality of Life Questionnaire EORTC QLQ P 25 using Cronbach's alpha coefficient is greater than .70. The convergent and divergent validity indices are 91% and 97.4% respectively.

Self-Esteem Scale (Rosenberg, 1965)

Also, self-esteem was examined using Rosenberg's Self-Esteem Scale. It is a 10-item scale that measures global self-worth by measuring both positive and negative feelings about the self. Positive and negative items are mixed together in the questionnaire. The scale is believed to be unidimensional. All items are answered using a 4-point Likert scale format ranging from strongly agree to strongly disagree. Respondents are instructed to choose the one response for each item that most closely resembles them. According to Swenson citing Verkuyten (2003), the internal consistency for Rosenberg self-esteem scale was .76. For data analyses, negatively worded items are reversely scored, of that high and low scores on both positive and negative items have the same meaning with four possible choices per item, total test scores range from 10 to 40, with higher scores indicating higher self-esteem.

Social support Scale (Cohen and Hoberman, 1985)

Social support was assessed using Interpersonal Support Evaluation List (ISEL). It is a 40-item scale made up of four subscales. The subscales are tangible support, belonging support, self-esteem support and appraisal support. Participants rate each item's statement on how true or false they believe it is for them. All answers are given on a 4-point scale ranging from "Definitely True"

to “Definitely False”. According to Delistamati, Davis, Samakouri and Vorvulakos (2016) the ISEL presents good internal consistency with Cronbach's alpha of .75 and test-retest reliability correlation coefficients of .84. The ISEL is a valid and reliable instrument for measuring social support and a higher score on the ISEL can be correlated with a significant stress-buffering effect. (Delistamati, Davis, Samakouri & Vorvulakos, 2006).

The three scales used in the study were clear and readily understood by participants. Therefore no changes were made to the questionnaires and it was adopted for use in the Ghanaian context.

Pilot testing of Instrument

A pilot test of the adopted instruments was done at the MADAFO specialist Hospital which is a private referral clinic for prostate cancer in the Sekondi- Takoradi Metropolis to determine the effectiveness and the reliability of the scales employed in the study. The sample prostate cancer patients undergoing treatment at MADAFO Clinic. The participants were between the ages of fifty (50) to seventy- five (75) years in stages 1-4. An appropriate setting was located at the hospital premises for the collection of the data. The questionnaire was administered to twenty (20) prostate cancer patients. Pilot testing was carried out on the instruments to determine their appropriateness before using them for the main study. This was to identify questions on the questionnaire that respondents might have difficulty understanding or interpreting as intended. Also, pilot testing was done to ensure that instructions and questions on the items are clear and also are devoid of ambiguous and misleading items. Finally, pilot testing of instruments offer the researcher the

opportunity to identify unclear questions as well as to try out the coding and classification system for the data analysis. Table 1 shows reliability scores of the pilot testing.

Table 1- Reliability Estimates of Pilot Testing

Scale	No. of items	Reliability
Quality of Life		
Symptom scale	19	.83
Functional scale	6	.70
Social Support		
Appraisal Support	10	.85
Tangible Support	10	.66
Self- esteem Support	10	.81
Belonging Support	10	.66
Overall Social Support	**40**	**.92**
Self- Esteem	10	.85

Source: Field survey (2019)

Data Collection Procedure

In order to deal with ethical issues like confidentiality, anonymity, consent and debriefing, the researcher applied for ethical clearance from Ethical Review Board, University of Cape Coast. Consent to conduct the study was also sought from the University of Cape Coast Ethical Review Board, Graduate School for Ethical Clearance to conduct the study.

Also, an introductory letter was collected from the Department of Education and Psychology which facilitated the researcher access to prostate cancer patients at Cape Coast Teaching Hospital. Introductory letter was

delivered to the Doctor in charge at the prostate cancer Unit. To ensure high questionnaire return rate and quick responses, the researcher, together with five nurses helped in the distribution of the questionnaire. Prior to the data collection, the researcher trained the nurses on how data should be collected. The purpose of the study was explained to the patients after which the questionnaire was given to them. The researcher gave a verbal instruction on how to respond to questionnaires and guidance was given on how to respond to the items on the questionnaire.

During phase one, Interpersonal Support Evaluation List (ISEL) was administered and collected back followed by the Rosenberg's Self-Esteem Scale and finally the Quality of Life Questionnaire (EORTC QLQ PR 25). A period of two months was used in collecting the data.

Data Processing and Analysis

After gathering the necessary data, the researcher processed and managed the data by editing them where appropriate, coding them, entering them into SPSS (version 21) and finally cleaning the data to remove any forms of mistakes that might have gone unnoticed.

Descriptive statistics was employed to analyze the background information by finding out the mean, minimum and maximum scores for data. The unit of analysis for the study was men with prostate cancer since the study is interested in exploring the influence of social support and self-esteem on prostate cancer patients.

Research question one (1) was analysed using means and frequencies to determine the level of self-esteem of prostate cancer patients. Research question

two (2) was analysed using means and frequencies to determine the level of social support received by prostate cancer patients. Likewise, research question three (3) was analysed using means and frequencies to determine the level of quality of life among prostate cancer patients.

Hypothesis one (1) was analysed using multivariate simple linear regression to determine the relationship between the independent variable (social support) and the dependent variable (quality of life) on prostate cancer patients. Accordingly, hypothesis two (2) was analysed using multivariate simple linear regression to determine the relationship between the independent variable (self- esteem) and the dependent variable (quality of life) on prostate cancer patients. Finally, hypothesis three (3) was analysed using moderation analyses with Hayes PROCESS.

Ethical Issues

The privacy and confidentiality of the respondents were assured. All information provided by the respondents was kept confidential and data was on computers protected by passwords. The name and identity of the respondent was not needed for the study. All the information provided by the respondents was used for the purpose of the study. Finally, respondents were not forced to participate in the research rather, their voluntary participation was sought.

CHAPTER FOUR

RESULTS AND DISCUSSION

Overview

This chapter presents the results of the data collected from the field, and this was followed up with the discussion of the findings. The chapter is based on the responses of all the sample used for the study.

The purpose of this study was to examine the influence of social support and self- esteem on the quality of life of prostate cancer patients. Specifically, the study sought to:

1. Determine the level of self-esteem of prostate cancer patients.
2. Determine the level of social support received by prostate cancer patients.
3. Determine the level of quality of life among prostate cancer patients.
4. Examine the relationship between social support and the quality of life of prostate cancer patients.
5. Investigate the relationship between self-esteem and the quality of life of prostate cancer patients.
6. Examine the role of social support and its moderating effect on self-esteem and the quality of life of prostate cancer patients.

The study employed descriptive survey design. Descriptive and inferential statistics were used to analyze the data. The study population was One Hundred and Thirty (130) prostate cancer patients undergoing treatment at Cape Coast Teaching Hospital. Using Krejce and Morgan (1970), a sample of One Hundred (100) medically diagnosed prostate cancer patients receiving

treatment at Cape Coast Teaching Hospital was used. Simple Random Sampling was also used so as to enable each prostate cancer patient who is diagnosed and undergoing treatment at the Cape Coast Teaching Hospital have an equal chance of being selected.

The results are presented in two parts. The first part presents the results on the demographic information of the respondents, while the second part presents the main results based on the research questions and hypotheses.

Demographic Characteristics

This section presents the demographic characteristics of the respondents. The demographic information covered included age and marital status. Details of the demographic information are presented in Table 2.

Table 2- Demographic Characteristics

Variables	Frequency	Percentage (%)
Age		
40 – 50 years	19	19.0
51 – 61 years	21	21.0
62 – 72 years	29	29.0
73 – 83 years	19	19.0
84 – 94 years	12	12.0
Marital status		
Single	21	21.0
Married	53	53.0
Divorced	26	26.0

Source: Field survey (2019)

As presented in Table 2, majority (29%) of the respondents were from the ages of 62 – 72 years, followed by respondents from the ages of 51 – 61 years who made up 21% of the total number of respondents. These findings are

consistent with that of American Cancer Society (2018) which revealed that about 6-10 cases of prostate cancer are found in men older than 65. Similarly, Andrew, Roth, Weinberger and Nelson (2008) found that, approximately 70% of prostate cancer diagnosis occurs in men over 65 years old.

Concerning marital status, more than half (53%) of the respondents were married, 26% were divorced, while 21% were single. This result implies that on a whole, majority of the respondent with prostate cancer were married.

Main Results

This part presents the main results. The results are presented in the order of the research questions and hypotheses that guide the study.

Research Question 1

What is the level of self-esteem of prostate cancer patients?

This research question sought to determine the level of self-esteem among prostate cancer patients. Respondents were asked to respond to ten items on a 4-point Likert-type scale on self-esteem. The responses of the respondents were rated from 0 to 3. The scores of the scale ranged from 0 to 30. Scores between 15 and 25 are within normal range; scores below 15 suggest low self-esteem. (Rosenberg, 1965) Details of the results are presented in Table 3.

Table 3- Level of Self-Esteem

Level	Score	Frequency	Percentage (%)
Low	Below 15	27	27.0
Normal	15 – 25	63	63.0
High	26 – 30	10	10.0
Total		100	100.0

Source: Field survey (2019); Overall Mean = 18.44, SD = 5.95

As shown in Table 3, the mean of the respondents was 18.44, which falls within the normal range of Rosenberg's scale. This was confirmed by majority (63%) of the respondents having scores from 15 – 25. Ten percent of the respondents had high level of self-esteem, while 27% had low self-esteem.

Research Question 2

What is the level of social support received by prostate cancer patients?

The research question sought to determine the extent to which respondents enjoy social support. Respondents responded to a 40 item on a 4-point Likert-type scale ranging from definitely true (3) to definitely false (0). The results to this research question are presented in Table 4.

Table 4- Social Support

Dimension	No. of items	Score range	Mean	SD
Appraisal support	10	0 – 30	19.45	6.77
Tangible support	10	0 – 30	15.52	4.66
Self-esteem support	10	0 – 30	16.46	6.96
Belongingness support	10	0 – 30	15.81	4.61
Overall mean	40	0 – 120	67.24	20.12

Source: Field survey (2019)

From Table 4, among the social support systems, respondents predominantly received appraisal support (M = 19.45, SD = 6.77). This was followed by self-esteem support (M = 16.46, SD = 6.96), belonging support (M = 15.81, SD = 4.61), and tangible support (M = 15.52, SD = 4.66). In all, respondents received some sort of social support, with a mean of 67.24 out of 120. This implies that the social support was just about average.

Research Question 3

What is the level of quality of life among prostate cancer patients?

The aim of this research question was to determine the quality of life of prostate cancer patients. Respondents' quality of life was assessed using QLQ-PR25, a 4-point Likert-type scale, not at all (1) and very much (4). The scores were linearly transformed to 0 – 100. For each multi- item scale, the average of the corresponding items were calculated. For the single- item measure, the score of the concerning item corresponds to the raw score. To obtain the score "S", the raw score were standardized to a 0-100 range using the algorithm S= RS-1/ range X 100. In terms of symptom scales, the higher the score, the more prevalent the symptom. For the functional scale, the higher the score, the better the functioning. Details of quality of life are presented in Table 5.

Table 5- Quality of Life

Dimension	No. of items	Mean	SD
Functional scales			
Sexual activity	2	79.33	20.94
Sexual functioning	4	60.74	26.45
Overall function	6	*76.42*	*19.55*
Symptom scales			
Urinary symptoms	8	43.45	21.35
Bowel symptoms	4	14.69	13.66
Hormonal treatment-related symptoms	6	34.69	15.73
Incontinence aid	1	72.86	29.10
Overall symptoms	*19*	*37.86*	*16.21*

Source: Field survey (2019)

As shown in Table 5, respondents generally had high sexual functioning (M = 76.42, SD = 19.55). Respondents' interest in sexual activity (M = 79.33,

SD = 20.94) was higher than how they enjoyed sex (*M* = 60.74, *SD* = 26.45). In addition, respondents did not experience so much symptoms of prostate cancer (*M* = 37.86, *SD* = 16.21). Among all the symptoms, respondents suffered so much from the use of incontinence aid (catheter) (*M* = 72.86, *SD* = 29.10). Generally, it can be said that quality of life of prostate cancer patients used in this study was moderate.

Hypotheses Testing

The study tested three hypotheses. Before these hypotheses were tested, assumptions such as normality of distribution, linearity, and outliers were checked. Details are presented in Table 6.

Table 6- Test for Normality, Outliers, and Linearity

Parameters	Appra.	Tang	Self-est	Belong	Sympt	Func
Mean	19.45	15.52	16.46	15.81	37.86	76.42
SD	6.77	4.66	6.96	4.61	16.21	19.55
5% Trimmed mean	19.81	15.37	16.57	15.80	37.63	77.45
Median	22.0	16.0	17.0	16.0	38.72	79.17
Skewness	-.895	.431	-.289	.055	.198	-.448
Std. Error	.241	.241	.241	.241	.241	.241
$z_{skewness}$	-3.71	1.79	-1.20	.23	.82	1.86

Source: Field survey (2019)
Note: Appra – Appraisal; Self-est – Self-esteem; Tang – Tangible; Belong – Belonging; Sympt – Symptoms; Func – Functions

From Table 6, the mean, median and 5% trimmed mean for tangible, self-esteem, belonging, symptoms, and function are approximately the same. In addition, the z-scores of their skewness were all within -3.29 and +3.29. These information indicates the distribution of the aforementioned variables were normally distributed. However, in terms of appraisal, the mean, median and 5% trimmed mean were not approximately the same. Again, its z-score, $Z_{skewness}$ =

-3.71, is out less than -3.29. This, therefore, implies that the data for appraisal was not normally distributed. Even though, the distribution for appraisal was not normally distributed, graphical examination of its normal Q-Q plot suggests a normal distribution (see Appendix E).

Hypothesis 1

H_0: There is no statistically significant relationship between social support and quality of life of prostate cancer patient.

H_1: There is a statistically significant relationship between social support and quality of life of prostate cancer patients.

This hypothesis sought to determine the relationship between social support and quality of life of prostate cancer patients. This hypothesis was tested using multivariate linear regression analysis. The predictor variable was social support. The criterion variables were the dimensions of quality of life: symptoms scale and functional scales. All the variables were measured on continuous basis. Details of the result is presented in Table 7

Table 7-Parameter Estimates for Social Support on Quality of Life

Dependent Variable	Parameter	B	Std. Error	T	Sig.
Symptoms	Intercept	64.70	4.961	13.042	.000
	Social support	-.399*	.071	-5.646	.000
Functional Scale	Intercept	94.693	6.610	14.326	.000
	Social support	.272*	.094	2.885	.005

Source: Field survey (2019); *Significant, $p < .025$

As presented in Table 7, in terms of the symptoms aspect of quality of life, social support was a significant predictor of quality of life, B = -.40, p < .001. This result implies that social support negatively predicts the symptoms of prostate cancer patients. Thus, a unit increase in social support would lead to .40 decrease in the symptoms of prostate cancer. The result further showed that social support significantly predicted functional scales aspect of quality of life, B = .27, p = .005, using Bonferroni's alpha of .025. This positive prediction implies that as social support for prostate cancer patients enhances by a unit, the functional scales of prostate cancer patients increases by .27.

Based on the results, the null hypothesis for the hypothesis that: "There is no statistically significant relationship between social support and quality of life of prostate cancer patient" was rejected in favour of the alternative hypothesis that "There is a statistically significant relationship between social support and quality of life of prostate cancer patients". It can therefore be said that, based on evidence from this study, social support has a relationship with quality of life of prostate cancer patients. This result has implications for clinicians as far as prostate cancer is concerned.

The relationship between social support and quality of life was statistically significant with a p-value of less than 0.05. This implies that social support is a significant factor in determining or influencing the quality of life of people living with prostate cancer. Correspondingly, the more social support an individual has in terms of tangible, appraisal, self-esteem and belonging support, the better their quality of life in terms of the symptoms they experience and functional scales.

Hypothesis 2

H_0: There is no statistically significant relationship between self-esteem and the quality of life of prostate cancer patients.

H_1: There is a statistically significant relationship between self-esteem and the quality of life of prostate cancer patients.

The main thrust of this hypothesis was to determine the relationship between self-esteem and quality of life of prostate cancer patients. To test this hypothesis, multivariate linear regression analysis was performed. The predictor variable was the self-esteem scores of respondents, which was measured on continuous basis. The criterion variables were the two dimensions of quality of life of prostate cancer: symptoms and functional scales, which were also measured on continuous basis. Tables 8 presents details of the results.

Table 8- Parameter Estimates for Self-esteem

Dependent Variable	Parameter	B	Std. Error	T	Sig.
Symptoms	Intercept	68.469	4.233	16.175	.000
	Self-esteem	-1.660*	.219	-7.595	.000
Functional Scales	Intercept	94.973	6.123	15.511	.000
	Self-esteem	1.006*	.316	3.183	.002

Source: Field survey (2019); *Significant, $p < .025$

From Table 8, self-esteem was a significant negative predictor of quality of life – symptoms, B = -1.66, $p < .001$. The result implies that as level of self-esteem of prostate cancer patients' increases by 1 unit, the symptoms of prostate cancer diminishes by 1.66. Similarly, self-esteem was significant positive predictor of functional scales aspect of quality of life, B = 1.01, p = .002. This

means that a unit increase in the level of self-esteem among prostate cancer patients would lead to 1.01 increase in their functional scales.

Based on these results, the null hypothesis that "There is no statistically significant relationship between self-esteem and the quality of life of prostate cancer patients" is rejected in favour of its alternative hypothesis that "There is a statistically significant relationship between self-esteem and the quality of life of prostate cancer patients."

Hypothesis 3

H_0: Social support will not moderate the relationship between self-esteem and quality of life of prostate cancer patient.

H_1: Social support will moderate the relationship between self-esteem and quality of life of prostate cancer patient.

This hypothesis sought to determine whether or not social support will moderate the relationship between self-esteem and quality of life of prostate cancer patients. This, in other words, implies that the study sought to investigate whether social support will interact with self-esteem to influence the quality of life of prostate cancer patients. This hypothesis was tested using the simple moderation model of PROCESS (Hayes, 2018) with 5000 bootstrap samples, with percentile bootstrap confidence intervals at 95% level of confidence.

The predictor variable was self-esteem, which was measured on continuous basis. The criterion variable was quality of life, which has two dimensions: symptoms scales and functional scales. These were measured on continuous basis. The moderator variable was social support, which was

measured on continuous basis. Details of the results are presented in Tables 9 to 10.

Table 9- Moderation Effect of Social Support in the Relationship between Self-esteem and Quality of Life (Symptoms)

	b-value	*SE*	*t*-value	*p*-value	Model Summary				
					R^2	*F*	df 1	df 2	*p*
Constant	48.38	11.63	4.16	<.001	.64	22.46	3	96	<.001
X on Y	.14	.75	.18	.855					
W on Y	.26	.20	1.33	.188					
X*W on Y	-.02*	.01	-2.18	.032					
Test of conditional interaction		R^2 change	*F*	df1	df 2	*p*-value			
X*W		.03	4.74*	1	96	.032			

X- Self-esteem; Y- Symptoms; W – Social Support*Significant, ;$p < .05$ level.

From Table 9, the model containing self-esteem, social support, and the interaction between self-esteem and social support was significant, F (3, 96) = 22.46, $p < .001$. The model explained 64% of the variance in symptoms of prostate cancer. It was further found that self-esteem was not a significant predictor of symptoms of prostate cancer, B = .14, $p = .855$. Similarly, social support was not a significant predictor of prostate cancer symptoms, B = .26, *p*

= .188. However, when self-esteem was interacted with social support, it was a significant negative predictor of symptoms of prostate cancer, B = -.02, *p* = .032. Addition of the interaction term contributed 3% of the variations in symptoms of quality of life. Table 10 presents the conditional effects of the moderator.

Table 10- Conditional Effects at Values of the Moderator (Symptoms)

Conditioning values	Social support	Effect	SE	t	Confidence Interval	
					LLCI	ULCI
-1 SD	45.16	-.907*	.361	-2.514	-1.62	-.19
Mean	71.00	-1.506*	.296	-5.089	-2.09	-.92
+1 SD	86.84	-1.872*	.369	-5.077	-2.60	-1.14

*Significant, $p < .05$ level.

From Table 10, at 1 SD below the mean of social support (45.16), the effect of self-esteem on symptoms of prostate cancer was -.91. At the mean of social support (71.0), the effect decreased to -1.51. The effect of self-esteem on symptoms of prostate cancer decreased further to -1.87, at 1 SD above the mean of social support (86.84). Details of interaction are diagrammatically presented in Figure 2.

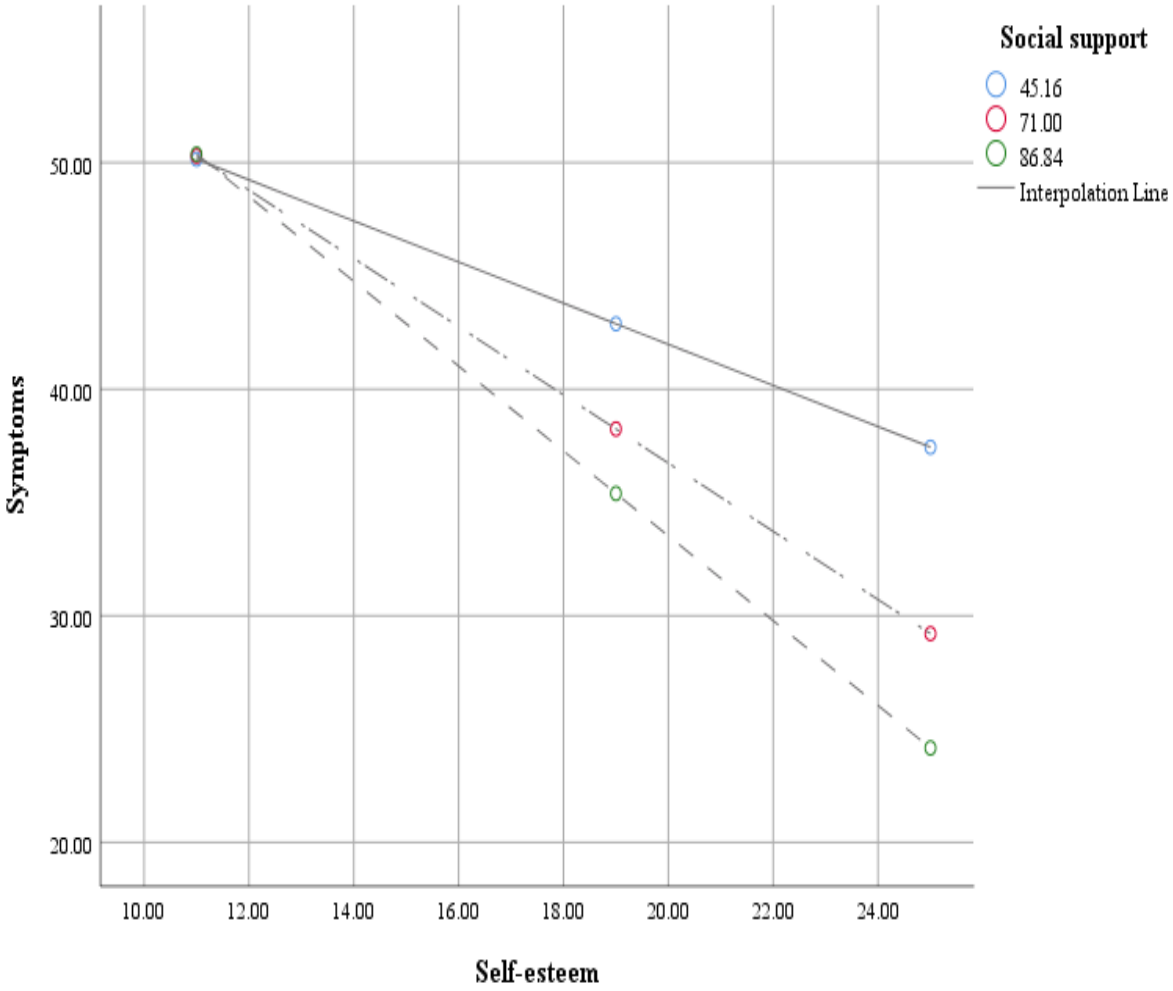

Figure 2: Conditional effects at values of the moderator (symptoms)

This implies that with the introduction of social support, the symptoms of prostate cancer reduced. The result in Figure 2 shows that the relationship between self-esteem and symptoms of prostate cancer was highest when social support was at its peak (86.84).

Following the results of the study, the null hypothesis that "Social support will not moderate the relationship between self-esteem and quality of life of prostate cancer patient" was rejected in favour of the alternative hypothesis, which states that "Social support will moderate the relationship between self-esteem and quality of life of prostate cancer patient."

Table 11- Moderation Effect of Social Support in the Relationship between Self-esteem and Quality of Life (Functional Scales)

	b-value	*SE*	*t*-value	*p*-value	Model Summary				
					R^2	*F*	df1	df2	*P*
Constant	60.92	16.81	3.62	.001	.16	5.87	3	96	.001
X on Y	1.73	1.09	1.59	.116					
W on Y	.49	.28	1.72	.089					
X*W on Y	.04*	.02	2.42	.017					

Test of conditional interaction	R^2 change	*F*	df1	df2	*p*-value
X*W	.05*	5.87	1	96	.017

X- Self-esteem; Y- Functional Scales; W – Social Support
*Significant, $p < .05$ level.

As shown in Table 11, the model containing self-esteem, social support, and the interaction between self-esteem and social support was significant, $F(3, 96) = 5.87$, $p = .001$. The model explained 16% of the variance in functional scales among prostate cancer patients. Self-esteem was not a significant predictor of functional scales, B = 1.73, $p = .116$. Additionally, social support was not a significant predictor of functional scale, B = .49, $p = .089$. However, when self-esteem was interacted with social support, it was a significant positive predictor of functional scale, B = .04, $p = .017$. The addition of the interaction

term contributed 5% of the variations in functional scales aspect of quality of life. Table 12 presents the conditional effects of the moderator.

Table 12- Conditional Effects at Values of the Moderator (Functional Scale)

Conditioning values	Social support	Effect	SE	t	Confidence Interval	
					LLCI	ULCI
-1 SD	45.16	.05*	.52	.09	.99	1.08
Mean	71.00	.92*	.43	2.14	.067	1.77
+1 SD	86.84	1.51*	.53	2.83	.45	2.56

*Significant, $p < .05$ level.

From Table 12, at 1 SD below the mean of social support (45.16), the effect of self-esteem on functional scale was .05. At the mean of social support (71.0), the effect increased to .92. The effect of self-esteem on functional scale increased further to 1.51, at 1 SD above the mean of social support (86.84). Details of interaction are diagrammatically presented in Figure 2.

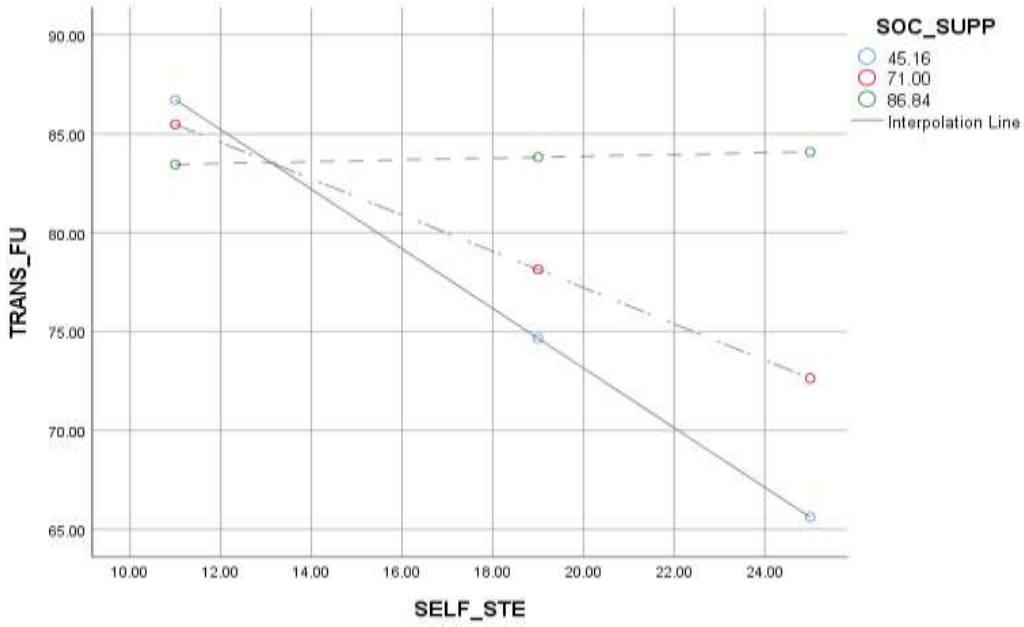

Figure 3: Conditional effects at values of the moderator (functional scale)

This implies that for respondents with the same level of self-esteem, as social support increases, functional scales becomes better. The result in Figure 3 shows that the relationship between self-esteem and functional scales depends on the social support received by respondents.

Discussions of Research Findings

Prostate cancer is heterogeneous ranging from a benign and indolent course to one that rapidly progresses, causing significant morbidity and mortality. The study examined the influence of social support and self- esteem on the quality of life of prostate cancer patients. The research findings of the current study are presented and discussed in this section. They are presented in accordance with the various research questions and hypotheses.

Level of self-esteem of prostate cancer patients

Haung (2010) asserts that self-esteem is on the average, relatively stable after age sixty (60). This could account for the reason why majority of the respondents had a normal self-esteem since majority of the respondent were above sixty (60).

Accordingly, Leary and Baumeister (2000) are of the view that positive social interactions are prime sources of self-esteem. It could be possible that their feelings of social inclusion and positive interactions within their social context has resulted in majority of the respondents having a normal self-esteem.

These findings are in agreement with the study of Wagner and Gerstort (2013) who revealed that, perceived cognitive abilities have been reported to be associated with self-esteem levels and that cognitive resources are important in self-regulatory and self-evaluative context. Respondents therefore had normal self-esteem possibly due to factors such as having enough cognitive resources

to adapt to daily challenges and to enable them maintain a positive picture of themselves in relation to the condition they might be facing.

Level of social support received by prostate cancer patients

From the subscales of social support, respondents reported having more of the appraisal/ informational support which involves help and advice given to a person in defining and coping with problems (Cohen & Wills, 1985). This could be due to the fact that, prostate cancer patients are receiving the necessary advice relating to their disease and how to deal with the associated quality of life issues.

This findings is however contradictory to the research by Paterson, Lauder and Jones (2013) that survivors of prostate cancer have expressed the need for more informational support particularly regarding the side effects of the disease, associated treatment and on-going issues related to recurrence.

Moreover, prostate cancer patients received some level of belonging support which involves the presence and availability of others for social engagement (Cohen & Wills, 1985). This could possibly mean that people were available to prostate cancer patients for social integration.

Similarly, findings of the study revealed that respondents received some amount of self-esteem support. This could be because they might have other people communicating feelings of value to them and to some extent, making them feel competent and in control over their prevailing condition.

Finally, the least support among the subscales of social support for this study was tangible support which according to Cohen and Wills (1985) is furnishing of financial, material or physical assistance. Even though this type of support was not so high in comparison to the subscales of social support, this

finding revealed that respondent to some extent had some average satisfaction with regard to financial assistance such as provision of money and labour.

Overall, the level of social support was a little above average indicating that prostate cancer patients had some level of social support (tangible, appraisal, belonging, self-esteem support).

Level of Quality of Life among prostate cancer patients

The quality of life of prostate cancer patients was moderate due to possible reasons such as receiving an average amount of support in terms of advice, finances, emotional and having a sense of belongingness. Another possible reason leading to their moderate quality of life could also be due to the fact that they might be feeling a sense of worth and value despite the side effects they experience in undergoing treatment.

Specifically, prostate cancer patients did not experience much of urinary, bowel and hormonal symptoms compared to wearing of an incontinence aid (catheter) due to possible reasons such as focusing on prostate cancer in their early stages (1-3). These prostate cancer patients may not experience much symptoms due to the stage in which they are in. Nevertheless, wearing of catheter experienced most symptoms probably because of the intensity of the pain in wearing a catheter and the discomfort associated with movement from one place to the other.

Correspondingly, prostate cancer patients might be having improvement in the symptoms scales probably because of being diagnosed for more than one year. This is affirmed by Eton and Lepore (2002) that, longitudinal investigations have shown that while declines in urinary function are quite

common in the first few months following prostate cancer, function improves substantially one year after treatment.

With respect to functional scales (sexual activity and sexual functioning) prostate cancer patients overall had higher functional scales. This could be due to the fact that they might not be experiencing a number of sexual dysfunctions (ejaculation problems, erectile dysfunction) that is usually associated with undergoing prostate cancer treatment. It might possibly be due to the prostate cancer stage (1-3) used in the study which reflects the early stages of prostate cancer leading to the individual having a better sexual functioning scales.

These findings however contradicts with Eton and Lepore's (2002) study which revealed that men with localized prostate cancer report more sexual problems than individuals without prostate cancer.

Results from the table indicate that prostate cancer patient's interest in sex was higher than their functioning or ability to perform in bed. This finding could be due to the fact that, respondents might have interest in sex however their ability to perform in bed was limited to some extent by their ejaculation and erectile dysfunctions they encounter during intercourse.

Relationship between social support and quality of life of prostate cancer patients.

The results of the study were in line with the findings of Imm et.al (2017) who found that strengthening social support system by promoting prosocial coping and help seeking behaviours early in the survivorship journey can help bypass the detrimental health effects associated with masculine role identification resulting in improved quality of life throughout the lengthy survival period anticipated for these men.

These findings were also congruent with the study of Queenan (2010) who investigated how social support and coping impacts emotional wellbeing two years after treatment in survivors of localized prostate cancer who have either radical prostatectomy or radiotherapy. The results concluded that, supportive relationships may contribute to improved emotional wellbeing following treatment of prostate cancer.

Finally, the result is consistent with the stress buffering model of social support discussed earlier (Cohen & Wills, 2005) which maintains that social support has the potential to buffer or protect individuals from the potentially negative influence of stressful events like prostate cancer.

Relationship between self-esteem and quality of life of prostate cancer patients.

These findings are in line with the study of previous researchers who documented that self-esteem mitigate the stress and discomfort associated with prostate cancer. Notably among them is the work of Jonnson (2009) who investigated prostate cancer and its influence in their daily lives as well as to understand if prostate cancer affects men's daily lives. Their findings suggested that strengthening self-esteem and finding a balance in a changed life situation limits the influence of the condition on their daily lives hence improving on their quality of life. This implies that the more self-esteem prostate cancer patients have, the better their quality of life.

Correspondingly, the result of the study is also congruent with a study by Mata et.al (2017) who evaluated patients in post-operative cancer surgery, the presence of distress and changes in self-esteem and their possible

relationship to the surgical treatment. The study concluded that the better the level of self-esteem, the lower the distress of cancer.

Social support and the moderating relationship between self-esteem and quality of life of prostate cancer patients. (Symptoms Scale)

From the result, when self-esteem and social support were used as independent predictors of the two dimensions of quality of life, they were not significant, nonetheless when social support and self-esteem were interacted with the symptoms scale of prostate cancer, the symptoms reduced. It is possible to deduce that when prostate cancer patients have a good supportive network, their self-esteem enhances thereby making the symptoms (urinary, bowel and sexual symptoms) of prostate cancer to improve. This finding is congruent with the proposition of social support theory which suggest that social support operates through moderating effect and that coping performances are enhanced when social support is high (Cohen 2000). Thus, under conditions of high stress like having a condition like prostate cancer, social support is believed to act as a buffer (moderator) against the adverse effect of the stressor.

This finding is also in line with a study by Zoul et al. (2010) who used social support as a moderator asserted that strengthening social support network may improve coping effort and health related quality of life for men living with and beyond prostate cancer.

Social support and the moderating relationship between self-esteem and quality of life of prostate cancer patients. (Functional Scale)

Result of the study implies that having social support alone does not improve prostate cancer patients functional scales likewise having self-esteem alone does not improve their quality of life. However, it is possible from the

table that, the combined effect of social support and self-esteem can have a proactive impact on quality of life of prostate cancer patients. Thus, when a prostate cancer patient has emotional, belonging, appraisal, self-esteem and tangible support from the environment, it helps the individual to feel valuable and part of the society hence boosting the confidence level of such individuals. This can go a long way to help improve their quality of life as the functional scales keeps improving.

This is consistent with Schrrevers, Rancher and Sanderman (2003) study which found that social support act as a moderator between self-esteem and depressive symptoms

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Overview

This chapter presents the summary as well as the key findings that emerged from the research. The chapter also contains conclusions and recommendations that were made based on the findings of the study. Suggestions for further studies have also been presented in this chapter.

Summary

The study sought to investigate the influence of social support and self-esteem on the quality of life of prostate cancer patients.

Specifically, the study sought to:

1. Determine the level of self-esteem of prostate cancer patients.
2. Determine the level of social support received by prostate cancer patients.
3. Determine the level of quality of life among prostate cancer patients.
4. Examine the relationship between social support and the quality of life of prostate cancer patients.
5. Investigate the relationship between self-esteem and the quality of life of prostate cancer patients.
6. Examine the role of social support and its moderating effect on self-esteem and the quality of life of prostate cancer patients.

In order to find answers to the research questions and hypotheses that were formulated to guide the study, the descriptive survey research design was employed.

The study covered prostate cancer patients who attend clinic at Cape Coast Teaching Hospital in the Central Region. In all, Hundred (100) respondents were involved in the study. Simple random sampling procedure was used to select the prostate cancer patients to serve as respondents.

Questionnaire was used to gather the requisite data for the study. European Organization for Research and Treatment of Cancer Quality of Life Questionnaire (EORTC QLQ PR 25), Rosenberg's Self-Esteem Scale and Interpersonal Support Evaluation List (ISEL) was used to measure quality of life, self-esteem and social support respectively. It is worthy to note that these instruments were subjected to reliability and validity test.

Data obtained on the variables were coded into SPSS computer software (version 21) for analysis and interpretation. Descriptive and inferential statistics were employed in the data analysis. For research question one, means and frequencies were used to determine the level of self-esteem of prostate cancer patients. Research question two (2) was tested using means and frequencies to determine the level of social support received by prostate cancer patients. Likewise, research question three (3) was tested using means and frequencies to determine the level of quality of life among prostate cancer patients.

Hypothesis one (1) was tested using multivariate simple linear regression to determine the relationship between the independent variable (social support) and the dependent variable (quality of life) on prostate cancer patients. Accordingly, hypothesis two (2) was tested using multivariate simple linear regression to determine the relationship between the independent variable (self-esteem) and the dependent variable (quality of life) on prostate cancer patients.

Finally, hypothesis three (3) was tested using moderation analyses with Hayes PROCESS.

Key Findings

The following were the key findings of the study:

1. The majority of respondents had normal level of self-esteem.
2. Among the social support systems, respondents predominantly received appraisal support. This was followed by self-esteem support, belonging support, and tangible support. In all, respondents received some sort of social support even though it was not so high.
3. Respondents generally had high functional scales. Respondents' interest in sexual activity was higher than how they enjoyed sex. In addition, respondents did not experience so much symptoms of prostate cancer. Among all the symptoms, respondents suffered so much from the use of incontinence aid (catheter). Generally, it can be said that quality of life of prostate cancer patients used in this study was moderate.
4. The relationship between social support and quality of life – symptoms was significant. In addition, the relationship between social support and quality of life – functional scales was significant. Self-esteem was a significant negative predictor of quality of life – symptoms. Similarly, self-esteem was significant positive predictor of functional scale aspect of quality of life.
5. Social support significantly moderated the relationship between self-esteem and the symptoms aspect of quality of life. This implies that with the introduction of social support the symptoms of prostate cancer reduced. Similarly, social support significantly moderated the

relationship between self-esteem and functional scales aspect of quality of life. This implies that for respondents with the same level of self-esteem, as social support increases the functional scales becomes better.

Conclusions

Findings reviewed in this study underscore the major role of social support and self-esteem on the quality of life of prostate cancer patients. Result of this study provides several important implications for understanding the impact of social support and self-esteem on the quality of life of prostate cancer patients. Without question, social support and self-esteem can be a positive factor in benefiting prostate cancer patients.

From the findings, it can be concluded that the better a prostate cancer patient's social support network and increase in their level of self-esteem, the better their quality of life, thus, improving their health tremendously and sustaining longevity.

Generally, confirming the stress buffering hypothesis, the study revealed that social support acted as a moderator (buffer) in the relationship between self-esteem and the quality of life of prostate cancer patients. Thus, it can be concluded that, prostate cancer patients with better social support network and a boosted level of self-esteem have good quality of life and therefore interventions aimed at increasing social support and self -esteem at the time of diagnosis might improve the quality of life of prostate cancer patients.

Recommendations

Based on the findings from the study and the conclusions that were drawn, the following recommendations are made:

1. The Ghana Health Service in collaboration with other health professionals should sensitize the public on the need for social support networks for prostate cancer patients by maintaining a strong relationship with prostate cancer patients. This is because, friends and family can help make realistic assessment of threats and their support can bolster confidence in dealing with issues, remain calm and help maintain proper attitude towards self-care thereby helping to improve their quality of life.
2. In order to ensure uncompromised quality of life of prostate cancer patients, health professionals should inculcate interventions designed to enhance social support and self-esteem of prostate cancer patients in their field of practice. This is because, these interventions can help increase self-esteem, self-confidence and a sense of empowerment as well as improve social connections and enhance relationships which altogether have a positive impact on the quality of life of prostate cancer patents.
3. Health professionals need to refer prostate cancer patients to clinicians (Psychologist) for psychological therapy on how to handle their thoughts and emotions with facing this chronic condition in times of feelings of helplessness and hopelessness. By so doing, it can help boost their self-esteem and self-confidence thereby contributing to their quality of life being enhanced. This is because, negative attitudes and

feelings of hopelessness can upset the body's hormonal balance and deplete the brain chemical required for feelings of happiness and calmness. In addition, negative feelings can have damaging impact on the immune system and other parts of the body leading to wear and tear of tissues which can go a long way in compromising the quality of life of these patients.

4. Health care professionals should encourage families and spouses of prostate cancer patients to provide especially tangible support in terms of financial assistance to aid these individuals. This is because tangible support was the least support received by prostate cancer patients in this study and by making these provisions, the quality of life of prostate cancer patients will increase.
5. Screening for social support and self-esteem at the time of diagnosis should be considered Health Personnels. This is because, information on screening could be used as discharge planning or rehabilitation programmes to support individuals with prostate cancer.

Suggestions for Further Studies

It must be emphasized that this study forms part of other similar researches conducted in different areas. Taking into consideration its limitations, the investigator wishes to suggest that further research be conducted in the following areas:

1. Psychosocial interventions and clinical programmes on social support and self-esteem to improve the quality of life of prostate cancer patients.
2. Explore whether social support and self-esteem on the quality of life of prostate cancer are culturally or ethnically unique.

3. Further studies can incorporate observation and interview guides to make the study more interactive since questionnaire served as the only instrument for data collection in this study.
4. The study could be replicated in other regions in the country to find out what persist there.

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APPENDICES

APPENDIX A

CONSENT FORM

Title: Influence of social support and self-esteem on the quality of life of prostate cancer patients.

Principal Investigator: Lawrencia MASA Oteng

Address: University of Cape Coast

General Information about Research

Prostate cancer is a chronic disease that requires an ongoing support. When someone develops prostate cancer, its impact extends beyond the physical effects of the disease to include psychological, social and economic problems which has impact on the quality of life of prostate cancer patients. This therefore calls for the need for social support and strengthening of the self-esteem of men with prostate cancer patients so as to be in a complete state of quality health and balance. This study involves a research to assess the influence of social support and self –esteem on the quality of life of prostate cancer patients. The questionnaire will last for approximately 25 minutes and your participation is completely voluntary. You are to respond to the questions by filling the blank spaces or ticking **[**√**]** where appropriate.

Possible Benefits

The findings of the study would be of tremendous importance to the health system and especially to the realized need and importance of providing support for prostate cancer patient. Having a variety of positive social support

can contribute to psychological and physical wellness of prostate cancer patients.

Confidentiality

We will protect information about you to the best of our ability. You will not be named in any reports or journal or magazine,

Compensation

There will be no compensation package either in cash or kind available for participants.

Voluntary Participation and Right to Leave the Research

Your participation in this research is voluntary and participant can withdraw without any penalty at any time.

Contacts for Additional Information

The following people can be contacted for further information about the research. Lawrencia Oteng 0279049818.

VOLUNTEER AGREEMENT

The above document describing the benefits, risk and procedures for the research title **Influence of social support and self- esteem on the quality of life of prostate cancer patients** has been read and explained to me. I have been given an opportunity to have any questions about the research answered to my satisfaction. I agree to participate as a volunteer.

_____ _____

Date Name and signature or mark of volunteer

If volunteers cannot read the form themselves, a witness must sign here:

I was present while the benefits, risks and procedures were read to the volunteer. All questions were answered and the volunteer has agreed to take part in the research.

_____ _____

Date Name and signature of witness

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

_____ _____

Date Name/ Signature of Person Who Obtained Consent

APPENDIX B

UNIVERSITY OF CAPE COAST

COLLEGE OF EDUCATION

DEPARTMENT OF EDUCATION AND PSYCHOLOGY

QUESTIONNAIRE FOR PROSTATE CANCER PATIENTS.

Dear Respondent,

This study is designed to investigate how a person's supportive network and self-esteem impacts on ones quality of life while undergoing prostate cancer treatments. This questionnaire will last for approximately 20mins and your participation is completely voluntary. Your identity will remain **anonymous and the information you provide will be strictly confidential**. Please feel free to ask questions or any clarifications before you respond in this questionnaire.

Demographic Characteristics

SECTION A

Please indicate your response to the following questions with the appropriate answer by ticking (√) the space beside the information.

1. Age

   a. 40 – 50 ( )

   b. 51 – 61 ( )

   c. 62 – 72 ( )

   d. 73 – 83 ( )

   e. 84 – 94 ( )

2. Marital Status

   a. Single ( )

   b. Married ( )

c. Divorced ( )

SECTION B

These symptoms or problems presents itself following prostate cancer treatments which affect ones quality of life. Please indicate the extent to which you have experienced these symptoms or problems during the past week as well as the last four week **on a scale of 1 to 4 with one indicating not experiencing the symptoms at all to 4 indicating experiencing the symptoms very much.**

NO	SYMPTOMS	Not at all	A Little	Quite A Bit	Very Much
	During the past few week				
1.	Do you urinate frequently **during the day?**	**1**	**2**	**3**	**4**
2.	Have you had to urinate frequently **at night?**	**1**	**2**	**3**	**4**
3.	When you felt the urge to pass urine, did you have to hurry to get to the toilet?	**1**	**2**	**3**	**4**
4.	Was it difficult for you to get enough sleep, because you needed to get up frequently at night?	**1**	**2**	**3**	**4**
5.	Have you had difficulty going out of the house because you needed to be close to the toilet?	**1**	**2**	**3**	**4**
6.	Have you had any unintentional release (leakage) of urine?	**1**	**2**	**3**	**4**
7.	Did you have pain when you urinated?	**1**	**2**	**3**	**4**

	Answer the following question only if you wear an incontinence aid (catheter)				
8.	Has wearing a catheter been a problem for you?	**1**	**2**	**3**	**4**
9.	Have your daily activities been limited by your **urinary problems?**	**1**	**2**	**3**	**4**
10.	Have your daily activities been limited by your **bowel problems?**	**1**	**2**	**3**	**4**
11.	Have you had an unintentional release of stool?	**1**	**2**	**3**	**4**
12.	Have you had blood in your stools?	**1**	**2**	**3**	**4**
13.	Do you have a bloated feeling in your abdomen	**1**	**2**	**3**	**4**
14.	Do you have hot flashes?	**1**	**2**	**3**	**4**
15.	Have you had sores or enlarged nipples or breasts?	**1**	**2**	**3**	**4**
16.	Have you had swelling in your legs or ankles?	**1**	**2**	**3**	**4**
	During the last 4 weeks…				
17.	Has **weight loss** been a problem for you?	**1**	**2**	**3**	**4**
18.	Has **weight gain** been a problem for you?	**1**	**2**	**3**	**4**
19.	Have you felt less masculine as a result of your illness or treatment?	**1**	**2**	**3**	**4**
20.	To what extent were you interested in sex?	**1**	**2**	**3**	**4**

21.	To what extent were you sexually active (with or without intercourse)?	**1**	**2**	**3**	**4**
	Please answer the next four questions if you have been sexually active over the last 4 weeks				
22.	To what extent was sex enjoyable for you?	**1**	**2**	**3**	**4**
23.	Did you have difficulty getting or maintaining an erection?	**1**	**2**	**3**	**4**
24.	Did you have ejaculation problems (eg dry ejaculation)?	**1**	**2**	**3**	**4**
25.	Have you felt uncomfortable about being sexually intimate?	**1**	**2**	**3**	**4**

SECTION C

Below is a list of statements dealing with your general feelings about yourself. There are four possible responses to each statement ranging from **Strongly Agree, SA (Number 3) to Strongly Disagree, SD (Number 0)**. If you **strongly agree (SA), circle 3**; if you **agree (A) with the statement, circle 2; if you disagree (D), circle 1**; and, if **you strongly disagree (SD), circle 0.**

NO.	STATEMENTS	SA	A	D	SD
1.	On the whole, I am satisfied with myself	**3**	**2**	**1**	**0**
2.	At times, I think I am no good at all.	**3**	**2**	**1**	**0**

3.	I feel that I have a number of good qualities	**3**	**2**	**1**	**0**
4.	I am able to do things as well as most other people	**3**	**2**	**1**	**0**
5.	I feel I do not have much to be proud of	**3**	**2**	**1**	**0**
6.	I certainly feel useless at times	**3**	**2**	**1**	**0**
7.	I feel that I'm a person of worth, at least equal to others	**3**	**2**	**1**	**0**
8.	I wish I could have more respect for myself	**3**	**2**	**1**	**0**
9.	All in all, I am inclined to feel that I'm a failure	**3**	**2**	**1**	**0**
10	I take a positive attitude toward myself	**3**	**2**	**1**	**0**

SECTION D

This scale is made up of a list of statements each of which may or may not be true about you. For each statement tick "definitely true" if you are sure it is true about you and "probably true" if you think it is true but are not absolutely certain. Similarly, you should tick "definitely false" if you are sure the statement is false and "probably false" is you think it is false but are not absolutely certain. If it is **Definitely True (DT), circle 4**; if it is probably true **(PT) with the**

statement, circle 3; if it is probably false (PF), circle 2; and, if **it is definitely false (DF), circle 1.**

NO	STATEMENT	DT	PT	PF	DF
1	There are several people that I trust to help solve my problems.	**4**	**3**	**2**	**1**
2	If I needed help fixing an appliance (iron, shaving machine) there is someone who would help me.	**4**	**3**	**2**	**1**
3	Most of my friends are more interesting than I am.	**4**	**3**	**2**	**1**
4	There is someone who takes pride in my accomplishments	**4**	**3**	**2**	**1**
5	When I feel lonely, there are several people I can talk to.	**4**	**3**	**2**	**1**
6	There is no one that I feel comfortable to talking about intimate personal problems.	**4**	**3**	**2**	**1**
7	I often talk with people around me	**4**	**3**	**2**	**1**
8	Most people I know think highly of me.	**4**	**3**	**2**	**1**
9	If I needed a ride to the lorry station very early in the morning, I would have a hard time finding someone to take me.	**4**	**3**	**2**	**1**
10	I feel like I'm not always included by my circle of friends.	**4**	**3**	**2**	**1**

11	There is really no one who can give me an objective view of how I'm handling my problems.	**4**	**3**	**2**	**1**
12	There are several different people I enjoy spending time with.	**4**	**3**	**2**	**1**
13	I think that my friends feel that I'm not very good at helping them solve their problems.	**4**	**3**	**2**	**1**
14	If I were sick and needed someone (friend, family member, or acquaintance) to take me to the doctor, I would have trouble finding someone.	**4**	**3**	**2**	**1**
15	If I wanted to go out (e.g., to the village, beach, or funeral ground), I would have a hard time finding someone to go with me.	**4**	**3**	**2**	**1**
16	If I needed a place to stay for week because of an emergency (for example, flood, fire outbreak), I could easily find someone wo would accommodate me.				
17	I feel that there is no one I can share my most private worries and fears with.	**4**	**3**	**2**	**1**
18	If I were sick, I could easily find someone to help me with my daily chores.	**4**	**3**	**2**	**1**
19	There is someone I can turn to for advice about handling problems with my family.	**4**	**3**	**2**	**1**

20	I am as good at doing things as most other people are.	**4**	**3**	**2**	**1**
21	If I decide one afternoon that I would like to go for a walk I could easily find someone to go with me.	**4**	**3**	**2**	**1**
22	When I need suggestions on how to deal with a personal problem, I know someone I can turn to.	**4**	**3**	**2**	**1**
23	If I needed an emergency loan, there is someone (friend, relative, or acquaintance) I could get it from.	**4**	**3**	**2**	**1**
24	In general, people do not have much confidence in me.	**4**	**3**	**2**	**1**
25	Most people I know do not enjoy the same things that I do.	**4**	**3**	**2**	**1**
26	There is someone I could turn to for advice about making career plans or changing my job.	**4**	**3**	**2**	**1**
27	I don't often get invited to do things with others.	**4**	**3**	**2**	**1**
28	Most of my friends are more successful at making changes in their lives than I am.	**4**	**3**	**2**	**1**
29	If I had to travel out of town for a few weeks, it would be difficult to find someone who	**4**	**3**	**2**	**1**

	would look after my house or apartment (the plants, pets, garden, etc.).				
30	There really is no one I can trust to give me good financial advice.	**4**	**3**	**2**	**1**
31	If I wanted to have lunch with someone, I could easily find someone to join me.	**4**	**3**	**2**	**1**
32	I am more satisfied with my life than most people are with theirs.	**4**	**3**	**2**	**1**
33	If I was stranded 10km from home, there is someone I could call who would come and get me.	**4**	**3**	**2**	**1**
34	No one I know would throw a birthday party for me.	**4**	**3**	**2**	**1**
35	It would be difficult to find someone who would lend me their car, bicycle, or motor for a few hours.	**4**	**3**	**2**	**1**
36	If a family crisis arose, it would be difficult to find someone who could give me good advice about how to handle it.	**4**	**3**	**2**	**1**
37	I am closer to my friends than most other people are to theirs.	**4**	**3**	**2**	**1**
38	There is at least one person I know whose advice I really trust.	**4**	**3**	**2**	**1**

39	If I needed some help in moving to a new house or apartment, I would have a hard time finding someone to help me.	**4**	**3**	**2**	**1**
40	I have a hard time keeping pace with my friends.	**4**	**3**	**2**	**1**

APPENDIX C

INTRODUCTORY LETTER

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
FACULTY OF EDUCATIONAL FOUNDATIONS
DEPARTMENT OF EDUCATION AND PSYCHOLOGY

Telephone: 233-3321-32440/4 & 32480/3
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UNIVERSITY POST OFFICE
CAPE COAST, GHANA

Our Ref:

Your Ref:

12th November, 2019

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

THESIS WORK
LETTER OF INTRODUCTION
MS. LAWRENCIA MASA OTENG

We introduce to you Ms. Oteng, a student from the Department of Education and Psychology, University of Cape Coast. She is pursuing Master of Philosophy degree in Clinical Health Psychology and she is currently at the thesis stage.

Ms. Oteng is researching on the topic: **"INFLUENCE OF SOCIAL SUPPORT AND SELF-ESTEEM ON THE QUALITY OF LIFE OF PROSTATE CANCER PATIENTS"**

She has opted to gather data at your institution/establishment for her thesis work. We would be most grateful if you could provide her the opportunity and assistance for the study.

Any information provided would be treated strictly as confidential. We sincerely appreciate your co-operation and assistance in this direction.

Thank you.

Yours faithfully,

Gloria Sagoe
Chief Administrative Assistant
For: **HEAD**

APPENDIX D

ETHICAL REVIEW

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
ETHICAL REVIEW BOARD

UNIVERSITY POST OFFICE
CAPE COAST, GHANA

Our Ref: CES-ERB/ucc.edu/vol 19-43

Date: March 4, 2019

Your Ref: .....

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Vice-Chairman, CES-ERB
Prof. K. Edjah
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Secretary, CES-ERB
Prof. Linda Dzama Forde
lforde@ucc.edu.gh
0244786680

Dear Sir/Madam,

ETHICAL REQUIREMENTS CLEARANCE FOR RESEARCH STUDY

The bearer, Lawrencia M. Oteng ....., Reg. No. EF/CHP/17/0019 is an M.Phil. / ~~Ph.D.~~ student in the Department of Education and Psychology ..... in the College of Education Studies, University of Cape Coast, Cape Coast, Ghana. ~~He/~~ She wishes to undertake a research study on the topic:

The influence of social support and self-esteem on the quality of life of prostrate cancer patients .....

The Ethical Review Board (ERB) of the College of Education Studies (CES) has assessed ~~his~~/her proposal and confirm that the proposal satisfies the College's ethical requirements for the conduct of the study.

In view of the above, the researcher has been cleared and given approval to commence ~~his~~/her study. The ERB would be grateful if you would give ~~him~~/her the necessary assistance to facilitate the conduct of the said research.

Thank you.
Yours faithfully,

Prof. Linda Dzama Forde
(Secretary, CES-ERB)

APPENDIX E

TEST FOR NORMALITY