INFLUENCE OF PSYCHOSOCIAL INTERVENTIONS IN ENHANCING CANCER PATIENTS' PSYCHOLOGICAL WELL-BEING IN ONCOLOGY CLINICS IN MERU COUNTY, KENYA

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A Thesis Submitted to the School of Education and Social Sciences in Partial Fulfilment of the Requirements for the Conferment of Doctor of Philosophy in Counselling Psychology of Kenya Methodist University

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DECLARATION AND RECOMMENDATION

Declaration

This thesis is my original work and has not been presented for the award of a degree or any other award in any other university.

Signature……………………………………Date……………………………...

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PSC-4-0395-1/2020

Recommendation

We confirm that the candidate carried out the work reported in this thesis under our supervision.

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DEDICATION

This research thesis is dedicated to my late father Costantino Magambo who taught me the value of hard work and my mother Evangaline Kanyua whose love for me knows no bounds.

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ABSTRACT

Cancer patients undergo immense physical, emotional, and psychological distress that influences overall wellbeing. Without adequate psychosocial interventions, their mental health deteriorates further, complicating treatment. Despite advancements in medical care, a gap exists in understanding and addressing cancer patients' psychosocial needs in many clinics. Psychosocial interventions are critical for coping, recovery, and healing. This study evaluated how psychosocial interventions influence the psychological well-being of cancer patients at oncology clinics in Meru County, Kenya. The objectives were to assess the influence of individual counselling, family counselling, support groups, and psycho-education on the psychological well-being of cancer patients and assess the moderating effect of financial constraints. Guided by person-centered and social cognitive theories, the study utilized a convergent survey research design. This study was conducted at oncology clinics in Meru County, Kenya. It adopted systematic and random sampling and purposive sampling techniques to select participants from a target population of 2580 cancer patients, 2580 caregivers, and 53 clinicians, respectively. Of these, 335 cancer patients, 40 caregivers and six clinicians were sampled. Data collection tools were questionnaires, interviews, and focus groups. An overall reliability Cronbach's alpha of 0.779 was established, and also checked content, construct and face validity. Piloting was done at the oncology clinic in Chogoria Hospital in Tharaka Nithi County. Descriptive and inferential statistical analysis was applied to quantitative data, while thematic analysis was used on qualitative data. The overall response rate was 83%. The study noted that most cancer patients display resilience and optimism, although their psychological well-being could be further enhanced through more personalized and patient-centered approaches, better financial support, and improvements in counseling, psycho-education, and support groups. Such interventions positively affect well-being by reducing stigma, enhancing decision-making and problem-solving skills, and increasing empowerment and preparedness. However, their effectiveness is often limited by inadequate psycho-education, insufficient infrastructure, incomplete psychosocial care information, lack of personalization in care, and inflexible oncology clinics. Financial difficulties also significantly distress patients. Comprehensive, multifaceted psychosocial interventions that include collaborative social support networks and address individual experiences and financial concerns are crucial for enhancing the psychological well-being of cancer patients. This study therefore recommends the strengthening support networks, prioritizing education, investing in suitable healthcare infrastructure and workforce development programs, engaging families, promoting experience sharing in support groups and ensuring available access to psycho- education. The government should address financial burdens through policy reforms, infrastructure development, partnerships, education and other direct assistance programs. The implications for this study for theories, policies and practice are personalized interventions, self-efficacy, social support, assessments, education, development, integrated care and financial assistance. It indicates a need for tailored psychosocial care, skills training, trust-building, collaboration, and addressing financial burdens to optimize cancer patients' psychological health through adapted comprehensive interventions. The study contributes new knowledge in the field of oncology and psychosocial oncology.

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LIST OF ABBREVIATIONS

ACS	**:**	American Cancer Society
APEC-U	**:**	Assessment of psycho-education of Caregivers Questionnaire
BC	**:**	Breast Cancer
BCPs	**:**	Breast Cancer Patients
CPs	**:**	Cancer Patients
OCs	**:**	Oncology Clinics
CBT	**:**	Behavioral Cognitive Therapy
FBO		Faith Based Organization
FCGs	**:**	Family Care Givers
FCR	**:**	Fear of Cancer Recurrence
FS	**:**	Flourishing Scale
GAD	**:**	Generalized Anxiety Disorder
HADS	**:**	Hospital Anxiety and Depression Scale
HRQoL	**:**	Health Related Quality of Life
IC	**:**	Individual counselling
IOM	**:**	Institute of Medicine
ITPQ	**:**	Information Technology Planning Questionnaire
KEMRI	**:**	Kenya Medical Research Institute
KeMU	**:**	Kenya Methodist University
KNPCG	**:**	Kenya National Palliative Care Guidelines
MDD	**:**	Major Depressive Disorder

MED : Medication for Emotional Depression

MeTRH : Meru Teaching and Referral Hospital

NACOSTI **:** National Commission for Science, Technology, and Innovation

NGO Non-governmental organization

NHIF **:** Kenya National Insurance Fund

NHIS **:** National Health Interview Survey

OC **:** Oncology Clinics

PCT **:** Person-Centered Theory

PE **:** Physical Education

PI **:** Psychosocial Intervention

PWB **:** Psychological Well-being

PWCP’s **:** Psychological well-being of Cancer Patients

QoL **:** Quality of Life

SACiP **:** Multi-perspective Evaluation of General Change Mechanism in Psychotherapy

SCT **:** Social Cognitive Theory

SG **:** Support Groups

SIT **:** Stress Inoculation Training

SLT **:** Social Learning Theory

SSPS **:** Statistical Package for the Social Sciences

UICC **:** Union for International Cancer Control

UK **:** United Kingdom

USA	**:**	United States of America
WHO	**:**	World Health Organization

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

The research sought to understand how psychosocial interventions influenced cancer patients' psychological well-being and how budgetary restrictions can mediate the relationship between these variables in oncology clinics (OCs) in Meru County, Kenya. It gives background knowledge and details on the study's target issue.

Psychological well-being (PWB) denotes an environment where a person's mental capacity functions to its full potential, hence enhancing success and propensity to deal with daily stressors (Gitonga, 2019). It is a progressive act that incorporate social, subjective, psychological measurements and wellness-related behavior (Mbithi et al., 2022). Shahbaz et al. (2022) defines PWB of cancer patients as the ability of an individual to monitor daily changes, emotional reactions, mood and lifestyle for positive treatment outcomes.

Psychological well-being of an individual is usually evidenced by a number of characteristics. For instance, it is distinguished by a reasonable and ongoing sense of fulfillment in one's life, the application of a problem-solving mode of activity, and the capacity to view one's surroundings with a degree of freedom from need distortion (Archer et al., 2015). Therefore, a thorough psychological well-being must emphasize traits like personal growth autonomy, pleasant associations with people, environmental mastery, acceptance and a sense of purpose in life. The absence of anxiety and despair, on the other hand, is a sign of PWB (Black et al., 2015).

Notably, PWB can be established through a number of criteria. For example, the most widely used method is the utilization of self-report questionnaires such as Ryff 42-Item psychological well-being scale (Burns, 2017). Another questionnaire tool which has proved usable in assessing the psychological well-being of personnel is the shortened Ryff 18-Item PWB scale (Burns, 2017).

Psychological well-being is desired by every individual, including cancer patients, due to its benefits although, given the gravity of cancer, it might be challenging to achieve. When evaluating oncology treatments, psychological well-being has been recognized clinically as a critical outcome indicator (Sibeoni et al., 2019). Another benefit resulting from psychological well-being is the ability to experience life satisfaction and personal autonomy (Kubzansky, 2018).

Cancer is a disorder that affects body cells, causing them to multiply uncontrollably and destroy body tissues (Gonzalez et al., 2015). This disease subjects a patient through a variety of progressive stages starting with grief, denial, anger, bargaining, depression and finally acceptance (Gonzalez et al., 2015). These stages predispose cancer patients to mental disorders when they lack appropriate support towards accepting their prevailing health conditions (Lin et al., 2009). Evidentially, research has indicated that a third of cancer patients suffer from mental conditions and are subject to psychological disorders owing to the progressive stages after being confirmed they are sick (Ndentei et al., 2018; Dekkers et al., 2019). This study investigated the influence of psychosocial interventions on the PWB of cancer patients.

There are many challenges and effects caused by lack of psychological well-being in cancer patients. The effects of cancer disease may be extended further to the caregivers and their families. For the individual, Lai et al. (2020) say that the effects of cancer can be very detrimental. It impacts the soul, body, mind, the process of treatment and psychological well-being due to significant changes it causes in the physical and emotional life. In such situation, a patient experiences a thwart of their lives, caused by the changes, need for attention and many demands from how they lived before (Bhoo-Pathy et al., 2017). Additionally, CPs experience stress, anxiety and depression, which result into higher morbidity and poor health outcomes (Naser et al., 2021). The challenge brought forth by cancer ailments is also diverse. Some challenges cause huge financial burdens and poor quality of life due to fear of relapse or death (Bhoo-Pathy et al., 2017). The effects and challenges of cancer need to be mitigated to facilitate the effectiveness of treatment and further hasten the healing process. This substantiates why the proposed study endeavor to investigate how psycho-social interventions would help to address the psychological well-being of cancer patients.

Globally, countries such as the United States of America have put a lot of emphasis on PWB and the quality of life of cancer patients. This is because, high psychological well-being of individuals enables one to live healthier and longer lives. Also, it is associated with fewer social problems and enjoying quality of life (Kubzansky et al., 2018). Psychological well-being is also highly regarded due to its ability to cause good clinical outcomes, better management of patient physical status and reduced mortality rates among cancer patients (Kubzansky et al., 2018; Mbithi et al., 2022).

Reports from Walker et al. (2021) based on a researched conducted in Canada show that apart from the emphasis on quality of life for cancer patients, some developed nations have continued to struggle with the burden of dealing with cancer. This range from malignancy, which is a major contributor to more than 80% cancer deaths worldwide. Pilleron et al. (2021) found that in 2020, the number of patients who contracted cancer disease in Canada were close to 18.1 million in the globe. Out of this population, 9.3 million were men, and 8.8 million were women, with the most common cancer types being breast cancer in women at 12.5% and lung cancer at 12.2%, respectively. Moreover, cancer deaths in 2020 rose to 10 million; hence, it ranked as the major cause of death in the world. In the USA alone, the figure is predicted to exponentially increase to 26.1 million in 2040 from 15.5 million (Niedzwiedz et al., 2019). This presents a high burden of cancer and a great need for psychological well-being. The state of affairs was worsened by the menace of the COVID-19 pandemic, which disrupted the economy, psychological, physical, and interpersonal resources (Reiss et al., 2021).

Interventions refers to action-based initiatives to impact the status quo of a situation. The Merriam-Webster Dictionary (2021) define intervention as a method of changing a condition to prevent harm or improve functioning. The emphasis of the definitions of intervention is having an action focused on an outcome. Notably, psychosocial interventions are therefore, defined as beneficial mental and social activities meant to impact changes in an individual's social, psychological, and biological functions (IoM, 2015). Also, they are non-pharmacological practices and services rendered to patient(s) by trained professional helpers with the aim to facilitate adaptation to cancer disease and treatment (Stanton, 2006). The process of administering psychosocial interventions involve holistic approach to cancer care, such as physical, emotional, social, psychological, spiritual and functional aspects. This is effectively achieved when different specialists extend their services to cancer patients (Longo et al., 2006).

Developed nations have channeled efforts towards addressing ill health, high mortality rates and poor quality of life such as introducing interventions for enhancing the PWB of CPs (Pietrzak, 2015). Some of the most practiced psychosocial interventions include; individual counselling, family counselling, support groups and psycho-education (Pietrzak, 2015; Hofman et al., 2021). The Washington DC, Institute of Medicine (2015), describes individual counselling, family counselling, psycho- education, and support groups as interpersonal techniques, strategies, and techniques aiming at initiating and impacting changes on individuals. According to the Institute of Medicine (IoM), these changes can range from behavioral, emotional, cognitive, interpersonal, social, environmental, or biological to enhancing health functioning and well-being (IoM, 2015). Successful outcomes in cancer counselling have been achieved by investing in taking action, mediating and monitoring outcomes (IoM, 2015). Other effective interventions include mindfulness, support groups, and purpose-finding therapies (Kordan et al., 2019). Apart from psychosocial interventions (PI), psychopharmacological interventions have also proved effective in treating many psychological and mood disorders among cancer patients in the USA (Grassi, 2017). This study is interested in investigating the influence of PI on the PWB of CPs at oncology clinics in Meru County, Kenya.

A study by Hofman et al. (2021) has reported that, support systems and psychosocial interventions are beneficial. Specifically, they have improved health functioning and survival rates of patients after cancer diagnosis. Their utility have also improved clinical outcomes and reduced cancer mortality rates. Therefore, psychosocial interventions have proven effective in boosting the PWB of patients (Pietrzak, 2015; Hofman et al., 2021). The study aimed to establish the influence of psychosocial on the PWB of CPs in a Kenyan set-up.

The need for competencies and professionalism of caregivers have also been underscored in applying psychosocial interventions. Studies such as Grassi et al. (2017) noted a need for clinicians and caregivers to employ effective psychosocial approaches in order to enhance psychological well-being. Some of the knowledge and skills required for the typical counselor include; counselling, social support, psychosocial education (PE) and coping. Counselling by competent counselors has shown that the interventions had reduced the severity of psychiatry symptoms such as pain, thus enhancing psychological well-being, resumption of duty, and increased chances of living (Kordan et al., 2019). In line with that, Sibeoni et al. (2018) hypothesized that cancer patients greatly benefit from psychosocial interventions offered by skilled and competent counselors in France.

As Wang et al. (2021) revealed, psychosocial intervention is key in offering a supportive mechanism for breast cancer patients. For instance, psychosocial support interventions provided assistance and encouragement to Chinese cancer patients; hence, enhanced their psychological well-being. Yan et al. (2016) also agreed and posited that psycho-education, individual counselling, and family counselling interventions had an impact on reducing stress and affecting cognitive appraisal. Moreover, Chou et al. (2016) and Li et al. (2020) recommended the importance of psycho-education and support groups for stress management and enhancing psychological well-being among cancer patients. However, there exists a research gap in that the researchers did not identify the reasons breast cancer patients identified educational support as more effective than other interventions.

Moreover, internet-based interventions have also been used in providing avenues for information on psycho-oncological support. Some of them are: patient forums, therapeutic games and peer support groups available via the internet. These have also proven efficacious in enhancing cancer care just as face-to-face interventions do (Li et al., 2020). Certainly, the components of psychological care vary in different countries depending on economic and development variables. Teo et al. (2019) in Singapore argued that psychosocial care in high-income countries involves educational interventions, face-to-face counselling interventions, and medical services. They noted that cancer patients require psychological care to help them improve self-esteem and interaction with others. Another literature review in Northern California by Kroenke et al. (2013) observed lower mortality for breast cancer patients attributed to PWB of the patients, implying that psychosocial interventions might have a huge part to play in the malignant growth experience of patients. However, there is an obligation to verify the influence of these interventions in enhancing the PWB of cancer patients in developing continents like Kenya.

Notably, support mechanisms for cancer patients are vital intervention measures. This was ascertained by Rehse and Pukrop (2012) who provided a review that support groups, psycho-education and individual counselling interventions enhanced mental well-being in cancer-affected patients in Germany. The results also affirmed that these interventions were beneficial to the psychological well-being of patients suffering from malignancy. They also discovered that steadiness and trustfulness between patients and therapists were the most persuasive variables for treatment achievement for 12 weekly therapies.

Regionally, the situation of cancer patients is not in any way different from that of developed nations. In countries like Uganda, reports underscore high prevalence of anxiety and depression among patients diagnosed with cancer disease (Katende & Nakimera, 2017). For instance, it was noted that among cancer patients, 21% have depression, 29% suffer anxiety and 13% suffer post- traumatic stress disorder as comorbid conditions. Moreover, in Africa alone, 1.1 million contraction cases and 711,429 cancer deaths have been reported (Wambalaba et al., 2019). The increase in cancer prevalence in Africa will lead to an increased psychological disorder, hence an increase of cancer mortality rate in Africa. Besides, scholars estimate that new cancer cases in Africa will rise to 2.1 million and cancer-related deaths will increase to 1.4 million by 2040. Kobia (2019) also projected that, malignancy-related mortality will rise to about 70% by 2030 in middle-income countries. This situation threatens the PWB of cancer patients hence a need to be addressed accordingly. The rising cancer death rates in the African continent indicate an indispensable need for a comprehensive approach to cancer management, including appropriate treatment as noted by Reiss et al. (2021). Grassi et al. (2017) articulated that, cancer in Africa is not only a physical disease requiring a multidisciplinary approach to treatment; but, also a very stressful disease with negative psychosocial consequences related to interpersonal, spiritual, and physical aspects. This study established that psychosocial interventions help in mitigating the problem.

In South Africa and Nigeria, intervention strategies to remedy the situation have been implemented. One of the intervention strategies is establishment of psychosocial interventions among cancer patients in addition to utilizing drugs in addressing depression, anxiety, and post-traumatic stress disorders (Nose et al., 2017). Another noticeable intervention strategy is spiritual support. This is because, in the African sociocultural background, psychological disorders are frequently associated with religious aspirations; hence, causing patients to seek help from supernatural powers (Mayston et al., 2020). Ayinde et al. (2021) too agreed saying that cancer patients mainly associated their psychological manifestations with mystical causes. Existing studies in Africa report the requirement for family care for people living with cancer in Sub-Saharan Africa, (WHO, 2013). Bekui et al. (2020) additionally noted that social, financial, and emotional support, family and friends are effective in enhancing breast cancer care. Moreover, experience sharing among the patients which, helped to increase their knowledge on coping and combating stress, depression, and anxiety, and eventually enhancing quality of life.

Given that African countries have other alternatives for managing the identified mental disorders, there is a critical necessity to come out with evidence-based psychosocial interventions that are effective in this region. This informed the need for this study to investigate how individual counselling, family counselling, support groups, and psycho-education psychosocial interventions influenced the PWB of CPs. African context. The study also acknowledged that some psychosocial interventions have cost implications. Notably, African countries have a high burden of cancer, and efforts to improve this have been affected by social barriers that have negatively impacted diagnosis and treatment (Kobia, 2019). According to Kobia, low and medium-income countries suffer a big burden in enhancing psychosocial care since treatment and diagnosis are affected by factors such as finance, marital status, age, and level of education.

In Kenya, research available on the influence of individual counselling, family counselling, support groups, and psycho-education PIs on the PWB of cancer patients is scanty. Cancer is ranked second in claiming the lives of individual following cardiovascular diseases, with its incidences almost doubling between 2008 and 2012 (Inkster et al., 2018). Inkster et al. (2018) also observed that cancer affects absolutely anyone regardless of demographic characteristics and one is prone to the risk as age advances.

According to Kenya Medical Research Institute ([KEMRI], 2019), new cancer cases reported yearly approximate to 40,000, with most diagnosed at late stages thus limiting treatment options, leading to low PWB, poor treatment outcomes, and high death rates. A World Bank (2020) report on economic and social impact of cancer in Kenya has shown a complicated health system that causes delay and late diagnosis, poor universal health coverage and little access to treatment. Apart from that, social cultural fear and stigma hindrances have contributed to late screening and treatment of cancer. Nevertheless, the research by Lehmann et al. (2020) noted the significance of cancer patient support groups in enhancing the care system. This corroborates with the argument of the study that, providing psychosocial interventions to cancer patients would improve the PWB of CPs and their caregivers, which may further reduce cancer stigma and improve cancer screening by the general population. This may subsequently promote early-stage cancer identification, improve cancer prognosis, and reduce the mortality rate for cancer patients in Kenya

The importance of psychosocial interventions during all stages of cancer is also supported in studies such as Gitonga et al. (2020) and Sabo et al. (2018). Focusing on psychological well-being and social relationships of CPs through all stages of cancer malady, the severity of a person's cancer condition is associated with higher tier of morbidity and mental problems. Moreover, the adversity of risk is especially experienced among patients from economically challenged families. Furthermore, there is a rising depression frequency (50.3%) and anxiety (56.2%) for mental disease affecting cancer patients in Kenya (Gitonga et al., 2020). These findings point out the severity of cancer disease implications, and have underscored a need for intervention measures.

Basically, intervention measures are critical in managing and mitigating the advanced effects of cancer on both the patients and the support team. Joel et al. (2020) established that individual counselling and family counselling had been adopted in addressing cancer patients in Kenya although in isolated cases. According to Joel et al. (2020), individual counselling and family counselling were both employed to manage the psychological, social, and behavioral problems caused by cancer disease. However, the influence of these interventions on psychological well-being had not been scientifically established among cancer patients in Kenya, hence the need for the study.

That notwithstanding, policy framework has been established to manage PWB of CPs. The Ministry of Health has a policy framework that guide and inform the provision of optional palliative care (Kenya National Palliative Care Guidelines [KNPCG], 2013). The KNPCG guidelines (2013), stipulate that all the level five hospitals should have a cancer care facility offering psychological care for CPs as part of holistic care of the affected individual. It also suggests that each cancer disease patient ought to be provided with PIs to manage mental problems. KNPCG has in addition proposed that patients on malignancy therapy and their families/guardians should meet psychosocial healthcare givers (HCGs) to be educated on normal psychosocial issues confronting malignant patients, including uneasiness, gloom, progressed care plans, care for kids, finance, will, and family connections. According to Kenya National Palliative Care Guidelines (2013), cancer patients' psychosocial worries should be evaluated completely by the medical care providers and addressed, hence prompting better prognosis.

Despite the above situation and guidelines, there is lack of sufficient research expounding the influence of individual counselling, family counselling, support group, and psycho-education interventions in enhancing the psychological well-being of patients with malignant growth in Kenya. A review by Niyaundi (2018) on cancer interventions found a need to investigate psychosocial interventions in low and medium-income countries like Kenya. This necessitated a need for the study among cancer patients attending the five oncology clinics in Meru County, Kenya.

In Meru County, GoK statistics, report pronounced cases of cancer menace. The Ministry of Health report of 2018 also indicated that Meru County is one of the leading Counties in patients with cancer in Kenya. Out of the 40,000 new cancer patients diagnosed every year in Kenya, about 3,000 cases are from the residents of Meru County, with 15% of cancer patients seeking treatment from Kenyatta National Hospital coming from the county (Kenya Medical Research Institute [KEMRI], 2019).

A study by Gitonga (2021) among CPs at the Palliative care clinic in Meru teaching and referral hospital identified that CPs were psychologically disturbed, had anxiety and were traumatized after the cancer diagnosis and throughout the disease process, and this affected their PWB. The study showed that depression and anxiety associated with financial constraints, cancer prognoses, and treatment outcomes negatively affected the PWB of CPs, exposing them to more needs for Psychosocial Interventions (PIs). Additionally, the study established that stigma from the community and low self–esteem negatively improved the PWB of cancer patients. Compared to patients with other chronic diseases in Meru County, Gitonga (2021) noted that the negative effects of cancer on PWB were higher among CPs than among patients with other chronic diseases.

A study done by La Monica et al. (2019) in Meru, showed that cancer patients mostly use spiritual therapy, vitamins and mineral supplements to manage cancer. Another study by Mutwiri (2019) carried out in Meru teaching and referral Hospital similarly noted that maintaining the right diet, managing stress, and increasing knowledge are important factors that reduce mortality rates for CPs. Although psychosocial interventions are provided to cancer patients in oncology clinics in Meru County, there are very few studies conducted in the clinics to assess the influence of these interventions in enhancing the PWB of CPs. Hence, psychosocial care has been perceived as a fundamental part of the meticulous consideration of people with malignancy (Mutwiri, 2019). This is an apparent gap in Oncology clinics in Meru County which required to be addressed by identifying the causative relationship between the PI and PWB of CPs. To bridge the gap, this research assessed the influence of PIs provided by the oncology healthcare staff to enhance the PWB of CPs.

1.2 Statement of the Problem

PWB refers to the optimal mental functioning of an individual, enabling them to cope with daily stressors and achieve success (Gitonga, 2019). It is undisputable that cancer patients face immense physical, emotional, and psychological distress throughout diagnosis, treatment, and survivorship. These experiences largely improve their overall psychological well-being. Without adequate psychosocial interventions, cancer patients' psychological well-being continues to deteriorate, further complicating treatment and recovery. Psychosocial interventions are critical in enhancing success and propensity to deal with the menace (Mutwiri, 2019).

To uphold the psychological well-being of cancer patients, the Ministry of Health has implemented optional palliative care guidelines (Kenya National Palliative Care Guidelines [KNPCG], 2013), ensuring the provision of cancer care facilities and services. The Ministry has also allocated resources and qualified personnel to offer psychosocial support to cancer patients. Additionally, the Institute of Medicine (2008) has introduced criteria for psychosocial interventions in advanced cancer care (Van de Wetering et al., 2015), aimed at enhancing the PWB of cancer patients.

Despite medical advancements, the psychosocial needs of cancer patients (CPs) remain inadequately addressed in many oncology clinics globally. Despite guidelines, CPs often experience poor psychological well-being, leading to insufficient emotional, social, and psychological care within the healthcare system. This gap results in poor mental health outcomes, reduced quality of life, and increased distress, influenced by various factors including lifestyle, economic status, physical symptoms, financial constraints, strained relationships, existential concerns, and supernatural beliefs (Wambalaba et al., 2019; Sibeoni et al., 2018; Alwhaibi et al., 2019; Atieno, 2018; Sommer et al., 2015).

Cancer poses a severe threat to health and economic development, with over 48,000 new cases and 33,000 deaths annually in the region (Atieno, 2018). Subsequently, oncology service providers and caregivers face challenges in selecting effective interventions to improve the psychological well-being of cancer patients. While psychosocial treatments have been employed (Atieno, 2018; Sommer et al., 2015), there is a lack of studies examining their effectiveness in enhancing the psychological well-being of cancer patients in Meru County, hence, a glaring research gap. If above gap is not addressed, it may lead to a decline in the prognosis, treatment, and survival rates of cancer patients, negatively impacting the nation's mortality rate and economic progress. This highlights an urgent need to understand the influence of psychosocial interventions on cancer patients' psychological well-being in oncology settings and recommend appropriate psychosocial care practices. Without evidence-based, patient-centered solutions, cancer patients would continue facing psychological morbidity that complicates their cancer experiences and recovery. The current study aimed to bridge this gap by examining the relationship between psychosocial interventions (individual counseling, family counseling, support groups, and psycho-education) provided by clinicians at oncology clinics in Meru County and the psychological well-being of cancer patients. Additionally, it explored whether this relationship is moderated by the financial constraints faced by cancer patients.

1.3 Purpose of the Study

The research aim was to evaluate the influence of psychosocial interventions on enhancing the psychological well-being of cancer patients who are undergoing treatment at oncology clinics (OCs) in Meru County, Kenya.

1.4 Objectives of the Study

The objectives of the study were to:

i. To assess the influence of individual counselling on enhancing the psychological well- being of cancer patients attending oncology clinics in Meru County.

ii. To evaluate the influence of family counselling on enhancing the psychological well- being of cancer patients attending oncology clinics in Meru County.

iii. To determine the influence of support groups on enhancing the psychological well- being of cancer patients attending oncology clinics in Meru County.

iv. To assess the influence of psycho-education on enhancing the psychological well- being of cancer patients attending oncology clinics in Meru County.

v. To examine the moderating effect of financial constraints on the relation between psychosocial interventions and the psychological well-being of cancer patients attending oncology clinics in Meru County.

1.5 Research Questions

These research questions guided the study:

i. What is the influence of individual counselling on enhancing the psychological well-being of cancer patients attending oncology clinics in Meru County?

ii. What is the influence of family counselling on enhancing the psychological well-being of cancer patients attending oncology clinics in Meru County?

iii. What is the influence of support groups on enhancing the psychological well-being of cancer patients attending oncology clinics in Meru County?

iv. How does psycho-education influence the psychological well-being of cancer patients attending oncology clinics in Meru County?

v. Does financial constraints moderate the relation between psychosocial interventions and the psychological well-being of cancer patients attending oncology clinics in Meru County?

1.6 Justification of the Study

Psychological well-being is significant for survival due to its importance in the general life contentment of a person. It has been acknowledged as a significant measure to consider when assessing the effectiveness of oncology treatments (Sibeoni et al., 2018). Globally, research indicates that a third of cancer patients have mental conditions and are subject to psychological disorders that negatively affect their PWB (Dekker et al., 2015). In Africa and Kenya, cancer is the second leading cause of death, with cancer-related mortality projected to rise to about 70% by 2030 (Kobia, 2019).

Studies in Africa, including Kenya, have established that PIs on cancer patients effectively manage psychological disorders, resulting in improved PWB (Nose et al., 2017). Studies have linked good PWB to improved clinical outcomes, increased survival rates, and reduced cancer-related mortality. At the same time, low PWB has been associated with poor health, shorter lives, and poor PWB (Pietrzak, 2015). Psychological interventions have been identified as effective in managing psychological disorders and enhancing PWB (Sommer et al., 2015). As such, PIs may increase the PWB of CPs. This substantiated a need for the study.

This study notes that the effects of PIs on PWB have been studied. However, there is still conspicuous research a gap when it comes to cancer patients, indicating a need to delve sychological interventions applicable in the African context, as prompted by the rising cancer prevalence and mortality rate; but empirical data remains scarce.

1.7 Limitations of the Study

The study depended on the ratings provided by cancer patients regarding the influence of psychosocial interventions on psychological well-being, making it difficult to rule out any bias in their ratings. However, the study used standard tools to measure psychological well-being, which mitigated this bias.

A limitation of this study lied in its cross-sectional design, which imposes methodological constraints. It relied on reported experiences from study participants since clinical observations of the identified psychological interventions may require experimental approach which are longitudinal in nature and outside the stipulated period of finishing the doctoral study. The study carefully assessed the influence of individual counselling, family counselling support groups, and psycho-education in enhancing the psychological well-being of cancer patients by coming up with statements for determining the experience and opinions of study participants.

1.8 Significance of the Study

The outcomes of this investigation hold significance for various stakeholders. For example, the Ministry of Health may gain valuable insights from this study's findings. It would aid in the formulation of policies regarding psychosocial interventions in cancer management services. Scholars, too, would greatly benefit from the findings, as they acquire both theoretical and practical knowledge regarding the enhancement of psychological well-being in CPs and their caregivers, particularly in the context of oncology clinics. Consequently, this research generated novel knowledge aimed at enhancing cancer treatment and the recovery process.

Moreover, the Ministry of Health derive benefits from the research findings. By implementing appropriate psychosocial interventions to address psychological issues related to cancer, there will be a decrease in emergency clinic visits, hospital admissions, and consultations with oncologists. Consequently, these results would contribute in the reduction of healthcare expenses and improved psychological well-being among cancer patients.

The medical staff also benefits from the study's findings. They may adopt relevant psychosocial interventions, which would enhance their motivation and save time when providing counselling to cancer patients. Additionally, the study findings would enlighten oncology medical staff and other healthcare providers working with cancer patients about the effect of PI on the PWB of cancer patients. This knowledge would assist oncology clinicians in making informed decisions regarding the use of psychosocial interventions for managing psychological disorders in oncology clinics.

From the findings envisaged in this study, the cancer patients would benefit by receiving improved psychosocial interventions hence better psychological well-being. This would help them to adapt to their disease and treatment, leading to improved psychological well-being; hence resulting to increased survival rates and reduced cancer-related mortality. Moreover, improved psychological well-being would enhance drug adherence, resulting in better treatment outcomes.

Results also have important implications for cancer patients' caregivers. They would gain knowledge about their roles, learn coping skills, improve their functioning abilities and enhance their mental health, which in turn benefit the cancer patients themselves. Additionally, the study's findings provide scientific evidence on the effectiveness of psychosocial interventions in enhancing the psychological well-being of cancer patients, promoting the wider adoption of such interventions in cancer management.

The findings significantly advance the understanding of family counselling’s multifaceted affect on communication, empowerment, stigma reduction, and coping mechanisms for cancer patients. The mixed methods approach further clarifies the intricate family counselling dynamics within cancer care. Identifying diverse attitudes highlight the need for personalized, culturally competent approaches. These findings collectively advance support strategies, resilience, and wellbeing.

For psycho-education, the holistic approach recognizing cancer patients' diverse needs is pivotal. The study noted that incorporating emotional, psychological, practical, family, and background aspects surpasses traditional informational sessions. By addressing medication adherence and dietary considerations, the study provides a patient-centric understanding of psycho-education. This comprehensive approach aligns with evolving patient needs and underscores the importance of well-rounded educational strategies to enhance care and psychological wellbeing.

The study's novelty lies in its holistic exploration of cancer patients' psychological wellbeing in Meru County, covering dimensions like purposeful living, activities, relationships, resilience and optimism. It uniquely integrates cultural considerations, patient suggestions, and caregivers and clinician perspectives for a comprehensive understanding of the psychosocial landscape. The emphasis on policy, practice and theories adds pragmatic and theoretical depth, making a valuable contribution to psychosocial support research in this region.

For family counselling, the novelty lies in the comprehensive mixed methods approach combining questionnaires, focused group discussions, and interviews to provide holistic insights into psychosocial interventions' influence. By exploring diverse dimensions like communication, empowerment, stigma, and coping, it takes a holistic view of counselling's influence on psychological wellbeing of cancer patients.

Novelty is also noted in recognizing patients' multifaceted needs and integrating practical aspects like medication adherence often overlooked in traditional approaches on psycho-education. Incorporating stakeholder perspectives grounds recommendations in real experiences. Moreover, translating findings into policy implications provides tangible recommendations to advance understanding of effective psycho-education practices and improve cancer patients' care at oncology clinics.

1.9 The Scope of the Study

In terms of variables, the focus was on individual counselling, psycho-education, psychosocial support groups, and family counselling interventions, as well as the influence of financial status on the PWB of cancer patients receiving treatment at five oncology clinics in Meru County, Kenya. The five clinics included in the study were MeTRH, Maua Methodist Hospital, Consolanta Hospital Nkubu, Cotolengo Hospital Chaaria, and Kirua Mission Hospital. The target population consisted of all adult cancer patients receiving care from January 2018 to July 2023, one caregiver for each patient, and clinicians working in the oncology clinics. The study was conducted from May to July 2023.

1.10 Assumptions of the Study

i. Financial constraints moderate the association between psychosocial interventions and psychological well-being of patients diagnosed with cancer attending oncology clinics in Meru County.

ii. Psychosocial interventions (individual counselling, family counselling, support groups, psycho education) have influence on the psychological well-being of patients diagnosed with cancer in oncology clinics (OCs) in Meru County, Kenya.

1.11 Operational Definition of Terms

Anxiety	Consummate response to alleged threat in this case increase of cancer.
Cancer patient	Refers to person suffering from cancer in the 5 oncology clinics.
Cancer patient caregiver	Refers to person taking care for a person suffering from cancer and attending clinic at 5 oncology clinics in Meru county.
C**linician**	Refers to oncologists, doctors, nurses and counselors involved in the management of a cancer patients at the 5 oncology clinics in Meru county.
Depression	It refers to response to perceived loss in this case cancer
Oncology Clinic	Refers to a health facility offering cancer management services in MeTRH, Maua Methodist hospital, Consolanta Hospital Nkubu, Cotolengo hospital Chaaria and Kirua mission Hospital in Meru county.
Psychological Well-being (PW)	Psychological analysis, contentment is regarded a having a good quality life with absence of depression and anxiety.

Psychosocial Interventions (PI)	These are ways of enhancing PWB of cancer patients. In this study, these are individual counselling, family Counselling, support groups, psycho-education.
Psycho education	Education meant to improve mental health of a cancer patient
Support groups	Groups meant for cancer patients where they meet and share experiences about cancer
Quality of Life	How cancer patients perceive their life when it comes to happiness and satisfaction in perspective of overall wellness status.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents an elaborate examination of the theoretical and empirical literature. It begins by reviewing the empirical literature, focusing on the study variables, such as the psychological well-being of cancer patients, individual counselling, family counselling, support groups, psycho-education, and financial constraint. This is followed by a discussion on theoretical framework; that is, social cognitive theory, and person-centered theory. At the end of the chapter, is a presentation of the conceptual framework.

2.2 Psychological Well-being of Cancer Patients

PWB is the essential characteristic of mental stability and can be described as essential in life fulfillment, happiness and healthy problem-solving status (Gomez et al., 2019). PWB focuses on functional and personal growth and has a significant relationship with physical and mental health (Salsman et al., 2015). In addition, it is related to adaptability, clear thinking, empathetic behavior, and physiological wellness (Lambert et al., 2019). In this study, it is about the cancer patient's evaluation of his or her past and present life, including their emotional reaction to events, mood, and analysis of the style of living which are important for positive treatment outcomes. It is aimed to help individuals with a cancer diagnosis to manage it well, focusing on both relieving the negative effects of cancer distress and promoting the positive aspects of PWB (Shahbaz et al., 2022).

Effective PWB is anchored on several dimensions. These are self-confidence, relationship with others, individual development, motivation, environment comprehension, and self-determination (Lambert et al., 2019). The self-confidence mentioned above involves enjoying, knowing, and tolerating oneself. On the contrary, individual development involves the progression of potential and embracing new challenges. Motivation encompasses establishing direction, setting goals, interpreting meaning, and predicting persistence and adherence to cancer treatment (Shahbaz et al., 2022). Additionally, environmental understanding entails the ability to make choices and create a supportive environment that encompasses control over one's internal and external world. Lastly, self- determination represents a sense of independence in taking responsibility and acting autonomously.

Furthermore, there are standardized psychometric tools available to assess the PWB of CPs following psychological interventions. These tools include the Ryff scales of Psychological Well-Being (PWB), the WHO Well-Being Index, and the Flourishing Scale (FS) (Diener et al., 2009; Salama & Younes, 2017). In this study, the Flourishing Scale (FS) was adopted to accertain PWB, as it provides a comprehensive score for psychological well-being. The FS, developed by Diener et al. (2009), comprises eight items that assess critical aspects of human functioning, such as positive relationships, feelings of competence, and having a sense of purpose and meaning in life (Salama-Younes, 2017). Respondents rate the FS items on a 1-7 scale, ranging from strong disagreement to strong agreement (Salama & Younes, 2017). The FS has demonstrated satisfactory psychometric properties and is highly comparable to other PWB scales.

The validity and reliability of the flourishing scale are crucial. A study conducted in Iran by Fassih-Ramandi et al. (2020) established the validity and reliability of the flourishing scale, focusing on older adults. The validity assessment revealed a significant and direct correlation between the FS and the Oxford Happiness Questionnaire ($r=0.647$, $p<0.001$). The reliability tests showed acceptable Cronbach's alpha coefficient (0.819) and test-retest (0.821) scores, indicating suitable validity and reliability.

Globally, cancer patients face various psychological challenges. Patients with cancer may experience a range of psychological issues and disabilities, including stress, depression, anxiety, and compromised quality of life due to fear of cancer recurrence or death. For example, a study conducted by Fortis et al. (2017) in Mexico examined the incidence and components related to the psychosocial needs of breast cancer patients at Le Raza public medical center. The study revealed that 44% of respondents experienced psychosocial distress related to health system access, while 68% reported physical concerns. This indicates that cancer patients are significantly affected by psychological problems and physical discomfort (Maria & Aldom, 2014). Therefore, it was crucial to understand how psychosocial interventions can enhance the PWB of CPs during their treatment journey.

Research has indicated that age group can influence changes in perception and attitudes towards psychological well-being in patients. This was demonstrated in a comparative study conducted by Priscilla et al. (2011) at Ampang clinic in Malaysia, which investigated the social demographic and clinical factors associated with life satisfaction, a component of psychological well-being, among patients with hematological diseases. The study found that younger patients had better psychological well-being compared to older individuals (Priscilla et al., 2011). These findings may also apply to cancer patients since hematological diseases, like cancer, are chronic illnesses. However, it remains unclear whether older cancer patients have lower levels of psychological well-being. The study did not determine whether age affects the quality of life or the need for positive psychological well-being, although Riaz et al. (2020) argue that psychological well-being is a factor influencing quality of life. The study findings revealed that financial difficulties affected the PWB of older male CPs, which in turn impacted their survival rates. This suggests that the PWB is not solely linked to the disease itself but also to the inability to meet financial needs. Nevertheless, it was necessary to assess how PI can enhance the PWB of CPs.

The association between financial distress and psychological well-being has been explored in studies such as the one conducted by Edwards and Greeff (2017). The study examined the financial challenges faced by individuals diagnosed with cancer and revealed that 40% of respondents experienced financial threats due to the diagnosis. Loss of income and the burden of cancer were commonly reported as sources of elevated stress. Although financial challenges may impact the psychological well-being of cancer patients, it is unclear whether different types of cancer have a similar influence on psychological well-being. This aspect was examined in the current study.

In Africa, there are studies that illustrate how psychosocial interventions can enhance psychological well-being among cancer patients. For instance, a study conducted in South Africa by Kagee et al. (2018) explored the role of implementing psychosocial interventions to improve well-being. The study reported a high prevalence of depression and other adverse effects among South African breast cancer patients, particularly those experiencing negative physical changes and lacking psychological support. The study recommended the utilization of medical treatment and psychological care to enhance patients' well-being. However, it is worth noting that the study (Van Oers and Schlebusch, 2021; Kagee et al., 2018) was biased as it primarily relied on depression and stress as measures of psychological well-being, neglecting other dimensions as outlined by Lambert et al. (2019). In contrast, this study assessed the influence of individual counselling, family counselling, support groups, and psychoeducation interventions on the psychological well-being of cancer patients.

The interplay between psychosocial well-being and financial influence has been explored by Buyinza (2021) in Uganda. The study revealed notable impacts of critical care on the psychological health and financial income of caregivers. Furthermore, the financial situation of patients influenced the ability of caregivers to work while providing care to cancer patients. Given that caregivers experienced psychological distress, it indirectly affected the psychological well-being of patients. Thus, there is a need for more studies, particularly focusing on cancer patients. Notably, the current study investigated the facet of psychological well-being among cancer patients in Meru County, which differs from the majority of studies that primarily focus on caregivers in Uganda.

Locally, there are very few studies conducted in Kenya that specifically examine cancer patients' psychological well-being. The existing studies mainly explore mental health throughout the disease process, such as the studies conducted by Ndetei et al. (2018) and

Kansiime et al. (2022). These studies highlight the influence of mental health on various behavioral, emotional, social, and mental aspects (Kansiime et al., 2022). Additionally, different measures have been used to assess respondents' life and mental health characteristics. Notably, Ndetei et al. (2018) relied on scales that measure stress and depression as indicators of psychological well-being or impairment. The studies also indicated that the severity and complications of cancer symptoms increase the risk of morbidity and mental disorders compared to patients with milder symptoms (Ndetei et al., 2018). Since stress and depression scales primarily focus on mental health rather than psychological well-being, this study adopted the Flourishing Scale questionnaire, which encompasses all dimensions outlined by Lambert et al. (2019) as indicators of cancer patients' psychological well-being.

From the reviewed literature, few studies have sought to establish the psychological well-being of CPs in Kenya. There is also no clear way of ascertaining or measuring a person's psychological well-being. Even though most of the studies reviewed use depression and stress scales, these scales seem to only touch on mental health and do not exhaustively cover the six dimensions outlined by Lambert et al. (2019) as indicators of psychological well-being. The only study that seems to have used a different scale to measure psychological well-being is the one carried out by Kansiime et al. (2022), which employed a CGQ-28 questionnaire to measure PWB among caregivers rather than cancer patients. Nonetheless, this study adopted flourishing scale questionnaire incorporating all of the dimensions outlined by Lambert et al. (2019) as indicators of psychological well-being of cancer patients.

Individual Counselling and Psychological Well-being of Cancer Patients Individual Counselling (IC) is a procedure through which clients work one-on-one with a knowledgeable therapist in a secure, and compassionate environment (Sue et al., 2019). When done effectively, it assists in overcoming life challenges like substance abuse, anger, depression, anxiety, marital issues, parenting difficulties, learning problems, and career choices. Individual counselling is a typical task of conversation based on a patient-therapist relationship that is developed on the rationale of trust, openness, and confidentiality (Beel et al., 2018). Owing to this, both the therapist and the client establish a working atmosphere that promotes personal growth, trust, and worthiness. Essentially, individual counselling aims at providing a patient with an opportunity to have core emotional needs met gratifyingly, and enables healthiness development through finding a deeper meaning in individual life (Ratts & Greenleaf, 2018).

Stemming from diagnosis with an ailment with high mortality rates, cancer patients are often psychologically threatened. Consequently, such cancer patients are often confronted with the fear of drugs, radiotherapy, chemotherapy, and even the thought of dying. This calls for psychosocial interventions such as individual counselling. Individual counselling helps patients conquer obstacles to their well-being. It also improves self-esteem which helps them learn skills to handle challenging situations, achieve goals and make healthy decisions (Lingens et al., 2021). In addition, it enhances the patient's efficacy and ability to cope and improves the quality of life (Gail & Pfeiffer, 2018).

Individual counselling is usually client-focused and goal oriented as determined by the client and therapist. An individual therapy session typically lasts for 45 minutes to one hour (Dugosh et al., 2016). The likelihood and period of treatment are explained mostly by the client's needs, treatment goals, and progression (Dugosh et al., 2016). Thus, many problems can be solved easily with short period therapy, while chronic or more complex problems need lengthy engagement before improvement is achieved (Dixon et al., 2016).

Individual counselling has demonstrated its therapeutic potential and its ability to influence the psychological well-being of cancer patients. For instance, a literature review conducted by Meibodi et al. (2021) revealed that individual counselling effectively improves the psychological well-being of patients. However, in spite of the numerous benefits of therapy, Mander et al. (2014) argued for the need to develop measures specifically designed to evaluate the scientific interventions and therapeutic changes. Consequently, in order to address this gap, they sought to create a tool that encompassed a wide range of research-tested therapeutic interventions, with similar items for both therapists and cancer patients.

To develop a comprehensive tool grounded in multiple significant frameworks, Mander et al. (2015) combined two well-established change process tools, SACiP and STA-R. This resulted in the creation of SACiP (Multi-perspective Evaluation of General Change Mechanism in Psychotherapy), a tool developed by Mander et al. (2012). SACiP measures the six dimensions of the change process, including resource activation, problem actuation, mastery, clarification of meaning, agreement on collaboration, and emotional bond, with three components each, encompassing the aspects of tasks and goals (Mander et al., 2015). On the other hand, STA-R (Scale of the Therapeutic Alliance-Revised), developed by McGuire et al. (2007), consists of four factors: patient fright, emotional attachment, confident collaboration, and therapist intervention (Brockmann et al., 2011). Through the integration of SACiP and STA-R, Mander et al. (2015) created the ITPQ (Individual Therapy Process Questionnaire), which incorporates eight aspects: asset enactment, issue activation, authority, explanation of significance, profound bond, purpose and tasks, psychotherapist intervention, and patient apprehension. According to Mander et al. (2015), the quantifiable aspects of ITPQ exhibited good and exceptional properties. Therefore, an adapted version of the ITPQ was utilized in this research to evaluate the influence of individual counselling on the psychological well-being of cancer patients.

Moreover, the influence of individual counselling on cancer patients' PWB is controversial due to differing results found in most studies. However, according to Whitfield et al. (2021), individual counselling should not be ignored since it lowers the levels of depression, which is an important measure for the PWB, and hence, it increases the chances of CPs' survival rate. Since the level of depression among cancer patient is a pointer to the level of PWB, a study by Jones et al. (2014) in the USA sought to identify the best treatment for cancer patients with depression. The study had an average sample size (n=134) comprising of breast cancer (BC) survivors seeking their preferred treatment with three options: support groups (SG), individual counselling (IC), or medication for emotional depression (MED). The most important finding of their study was that more than 50% (53%) of respondents chose individual counselling as their preferred depression treatment over antidepressants or a support group (Jones et al., 2014). The study did not however show any covariance between the choice of treatment method and the patient's subsequent psychological status. Moreover, the study targeted BC survivors rather than general cancer patients and did not assess how IC affected psychological well-being. Thus, there was need to establish how IC affects the PWB of CPs.

A similar study which factored the benefits of individual counselling was done in Germany by Argstatter et al. (2015). The study assessed the individual counselling and other interventions with patients. It found that, in most instances, individual counselling was more commonly preferred than the use of drugs and other medical treatments that could have side effects or worsen patient's condition. Consequently, most patients reported improvement, long after therapy had ended. Further, individual counselling was recommended due to its evidence-based nature. This meant that it had been the theme of clinical research and examination, and had been analyzed for efficacy (Barry et al., 2014). In a related study, Lingens et al. (2021) evaluated the effects of psychosocial cancer support services in Germany. The study indicated improvements in individual psychological well- being when individual counselling was applied. The study, however, failed to show how individual counselling influenced the PWB of a cancer patient. Thus, there was a need to determine how individual counselling could influence the PWB of CPs, which is the core agenda for the current study.

Additionally, Perisamy's (2017) investigation in Malaysia focused on the influence of pharmacists' counselling on Quality of Life (QoL) and the psychological well-being outcomes of CPs. The investigation was a randomized control experiment engaging one hundred and sixty-two patients under cancer medical treatment. Analysis of variance, independent test, and difference in means were conducted.

It was noted that structured individual counselling significantly influenced the PWB of the intervention group, where the rate of depression and anxiety reduced in patients (Periasamy, 2017). The study involved 60 patients who wanted to deal with pain and emotional disturbance, balancing emotions, and general PWB issues. The results showed that participants achieved significant benefits. The benefits realized were: better mood, reduced stress, improved communication, and management of negative emotions related to illness or treatment (Zhang et al., 2019). Even though the study indicated that individual counselling had an insignificant effect on the PWB of CPs, there was still need to carry out a study targeting Kenyan cancer patients considering differences in socioeconomic between Kenya and Malaysia.

The influence of individual counselling on PWB might depend on the stage of cancer. For instance, in Canada, it was found that the stage of malignancy growth determines the intervention’s effectiveness, with the late stages of cancer presenting significant psychosocial setbacks (Dixon et al., 2016). Nonetheless, Lo (2014) showed that depressive symptoms decreased over time, and death anxiety decreased when IC interventions were used. Lo (2014) further indicated that individual counselling improved the mental well- being of CPs. Even though the findings indicated that individual counselling enhances psychological well-being, whether this was significant or happened just by chance needs to be empirically clarified. Moreover, the study was done in a developed country, and the results might not be generalized to cancer patients in Kenya. Thus, there was need to ascertain the influence of individual counselling on the psychological well-being of CPs in Kenya.

In Kenya, Wang'ombe and Kathungu (2021) sought to find the nature of recovery and the outcome of counselling among CPs attending selected Hospitals in Nyeri and Nairobi counties. To select the study participants, a systematic sampling technique was employed, resulting in a sample size of 96 individuals. Questionnaires were used to gather information, and analyzed using inferential and descriptive statistics. Patients were unaware of the individual counselling interventions available in the palliative care unit. Counselling services were provided to them in the facilities. The study noted that cancer patients could not differentiate individual counselling from other discussions with the health care providers, therefore, could not identify the influence of individual counselling on their PWB (Wang'ombe & Kathungu, 2021). Hence, this study failed to indicate any correlations between individual counselling intervention and the psychological well-being of the CPs. This calls for studies that can provide empirical proof showing the effect of individual counselling on the PWB of CPs, which the current study is aimed to establish. No studies within Meru County had focused on cancer patients' influence on individual counselling on the PWB, even though the counselling services are ongoing within the oncology clinics. The objective of the study was to address this deficiency by coming out with evidence on whether there exists any influence of individual counselling on PWB of CPs within Meru county oncology clinics.

2.3 Family Counselling and Psychological Well-being

The family unit is critical in the PWB of CPs and related parties. A family comprises of genuinely joined individuals who communicate routinely and discuss issues for the progress and advancement of the family unit and member (Sackett & Cook, 2022). Family counselling imparts knowledge and expert advice to family members regarding particular well-being problems like genetic, congenital, cancer, or any other ailment (Sackett & Cook, 2022). As a result, family counselling (FC) empowers family members with the knowledge about medical issues and skills to aid in caring for the sick family member. In the case of illnesses such as cancer diagnosis among many family members often become anxious and psychologically distressed due to insufficient information on how to take care of their ill family member (Ojewole, 2018).

As a result, family counselling is integrated into the intervention measures (Ojewole, 2018) for cancer treatment. It is expected to improve the patient's family members' viewpoints regarding cancer patient care by revealing cancer information and making decisions on chemotherapy, hospital admissions, and care (Mystakidou et al., 2002). Thus, family counselling enhances communication and family support for CPs. In the case of cancer, family counselling is a specialized therapy meant to empower the family members of the affected cancer patients and the cancer patient to enhance their support and enable better cancer treatment outcomes (McCorkle et al., 2011).

The American Cancer Society (2015) illustrates that cancer affects almost all families worldwide because of the psychological, financial, and social burden it causes. The burden of cancer disease comes with high demands on the families of the affected person and negatively influence the PWB of the CP and their caregivers. However, the interventions meant to involve the affected people's family members in managing the condition gives hope to the cancer patients and the cancer patient caregiver; consequently, enhancing treatment outcomes and the PWB (Venter et al., 2020). The relationship between family support and health outcome means that, for people with a chronic disease like cancer, the family support plays a vital role in helping the patient cope with the stresses of life and the impact of the disease (Pfaendler et al ., 2015). Thus, there was need to assess the family counselling intervention to ascertain its influence on the PWB of cancer-affected patients.

According to Ehrbar et al. (2022), providing counselling intervention for the whole family unit is particularly important in enhancing the PWB of the CP. In their study, Ehrbar et al. (2022) sought to establish the efficacy of brief therapeutic involvements with families of CPs. The contrast between before and after the therapeutic involvement demonstrated remarkable improvement in household intercommunication and fulfillment. Kissane et al. (2016) also established that a well-functioning family, with efficient communication and cooperation, has less functional morbidity, and can benefit from brief supportive care to develop a treatment road map that positively influences the treatment outcome and PWB of CPs. However, families with complicated issues call for prompt diagnoses and help to mitigate pathological effects (Kissane et al., 2016). Consequently, consistent mitigation of pathological effects of cancer on the PWB of CPs cannot be successful without family counselling intervention. Hence, family counselling intervention is one of the interventions this study intended to assess to find out the nature of influence it has on the PWB of the CPs.

Family counselling is geared towards effective communication and empowerment. The focus of family counselling is to enhance effective communication between the family, CP, and clinical team, while empowering the family during the challenging stages of cancer disease and management (Grassiet al., 2013). Decreasing the disease's interpersonal consequences helps improve PWB for the patients and the family (Grassiet al., 2013). Subsequently, cancer management and care includes mental care components for the patient and family members in the treatment package of care (Abu-Helalah, 2014). Notably, the diagnosis with cancer influence family care, kinship patterns, and negative mental repercussions for caregivers (Gritti, 2012). Besides, the clinical features of cancer, which consist of physical and psychological symptoms, affect the CP and indirectly or directly affect their family members, including their caregivers. The family system is also affected negatively by the cancer disease in terms of responsibility, poor communication, stigma, and disorganized kinship, which in turn impacts the PWB of the patient (Grassi et al., 2013). These family challenges affecting the CP are addressed through family counselling. Thus, there is a need to establish the influence of family counselling on the PWB of CPs in the oncology clinics. This is because, family counselling is an effective approach to boost the PWB for the CP and relieve the emotional distress of the involved members of the family. According to Paolo (2015), this intervention aims to assist the patient’s family to figure out their concerns and to recognize the tension and apprehension about cancer that can block their ability to deal with the common issues they can adapt to.

In contemplation of the importance of family counselling in managing cancer patients, Alexander (2019) examined what the family contributes in managing patients diagnosed with breast cancer in India. Their study employed a mixed method approach, and collected data from 378 women diagnosed with breast cancer from 2008 to 2012. The study results noted that most respondents received psychosocial support from family members. Family counselling is important in enhancing and maintaining the PWP of women diagnosed with breast cancer during and following treatment. Nonetheless, the study failed to show how FC could affect the PWB of the CPs, hence the need to ascertain this.

Expounding on the role of FC on patients' PWB, Kleine et al. (2019) performed a systemic review on the effects of family counselling intervention provided to cancer patient care providers in Germany. The review found positive effects of the family counseling intervention which included reduced mental agony, improved communication, worries on financial burden, self-efficacy, and coping for the cancer patient. Related research carried out in the United States, Waldron et al. (2013) discovered that interventions provided to partners of CPs can have a positive effects on both the partners and the patients. The study also indicated that providing effective education to families and patients does not necessarily require increased counselling time (Waldron et al., 2013). However, the study did not specifically investigate the influence of particular interventions, such as family counselling, on the PWB of the patients. Therefore, the present study was crucial in assessing the influence of family counselling on the PWB of CP caregivers. In the African context, similar research exist. For example, Muliira and Kizza (2019) conducted a study in Uganda to examine the level of worry and despair among caregivers (FCGs) of CPs. The study revealed high rates of anxiety and depressive symptoms among caregivers, and the implications of these symptoms were linked to negative effects on the PWB of CPs (Muliira & Kizza, 2019). However, the study did not involve CPs or examine the influence of family counselling on the psychological well-being of CPs. As a result, it remained unclear how family counselling influence the psychological well-being of cancer patients, highlighting the importance of the study.

The literature review has shown that many patients and their caregivers benefit from family counselling regarding knowledge and how to take care of the patients. It also helps the caregivers be psychologically prepared to handle various circumstances their patients might be going through. Moreover, the review indicated that such family counselling interventions help alleviate caregivers' psychological distress. However, there was a great need for more information concerning the influence of family counselling on PWB of cancer patient. This study sought to provide empirical data to help bridge this knowledge gap.

2.4 Support Groups and Psychological Well-being

The support group is a meeting of people with similar concerns and experiences who meet routinely in safe spaces to provide emotional and moral support to each other. In such meeting, they share thoughts and experiences on how to deal with various issues (Antonia, 2014). Safe spaces could include a therapist or a specialized support group. The support group members interact in persons, by telephone, or online.

It is often lonesome and depressing to find out that one is faced with a situation that he or she has not witnessed someone else go through. Getting to know someone who has gone through or is going through a similar situation can be comforting (Okwor et al., 2018). This opportunity is provided in a support group. Therefore, support groups provide opportunities for cancer patients to share their experiences through different approaches, including education and cancer peer support groups. Consequently, support groups help patients fight stigma and overcome the fear of death and an unknown future (Tehrani et al., 2011). In addition, it gives CPs and their caregivers a chance to learn from and support each other. Support groups may focus on all types of cancer, one kind of cancer, and may accept everyone or specific age, culture, and sex. Formal cancer support groups are made up of only cancer patients or caregivers, and deal with emotions and knowledge about cancer. The informal and social support groups involve spouses, friends, and family members. Other support groups focus on certain types of cancer or stages of cancer disease (Romito et al., 2013). Cancer support groups benefit patients who endure malignant tumors by modifying patients' perspectives, mastery, and prospective regarding cancer. Besides, cancer patients join support groups to learn and share experiences with other people with cancer and those affected by the disease (Okwor et al., 2018). Thus, there is a need to assess the influence of these support groups on the PWB of CPs.

Moreover, the presence of individuals who are going through similar challenges and sharing their experiences helps alleviate loneliness and creates a sense of belonging to a new community. Each participant is given the opportunity to share their challenges, facilitating a sense of catharsis (Cipolletta et al., 2018). By listening to each other's experiences, patients can identify their potential for improvement, develop effective coping strategies for daily life challenges, and adopt positive attitudes towards adapting to cancer (Mahendran et al., 2017). This suggests that support groups have the potential to enhance the psychological well-being of cancer patients.

Additionally, support groups have been found to improve QoL, which encompasses social, physical, and psychological well-being (Worra et al., 2018). Participation in support groups benefits both cancer patients and caregivers. The Union for International Cancer Control (UICC) (2011) asserts that support groups offer quantifiable advantages by boosting participants' resilience and adjustment, reducing stress, distress, and depression. Other benefits include improved social skills, increased understanding of the cancer disease, relief from feelings of loneliness, expression of emotions, enhanced optimism about cancer, and, depending on the specific support group, the opportunity to help other cancer patients or caregivers (Santarelli et al., 2021). All of these factors can contribute to better treatment outcomes for CPs and positively influence their PWB. Support groups incorporate elements such as creating a safe environment, sharing experiences, exchanging information, and providing social support and connection. This indicates that support groups potentially influence the PWB of CP caregivers. Therefore, this research examined whether support groups enhance the PWB of CPs.

While several tools are available to assess the influence of support groups on psychological well-being, this study specifically adopts the Group Questionnaire developed by Krogel et al. (2013). The Group Questionnaire is a clinically and empirically derived measure of the support group relationship. The refined questionnaire consists of 24 items that are effective for outpatient, inpatient, and caregiver settings (Stephen et al., 2014). It measures three components: working relationships, experience sharing, and stigma related to the PWB of cancer patients' caregivers. Therefore, the present study employed the Group Questionnaire as a means to measure the effect of support groups on PWB.

Various studies have emphasized the importance of support groups, but there is limited research on the influence of cancer support groups on the psychological well-being of cancer patients' caregivers. For example, a study conducted in Northern Italy by

Cipolletta et al. (2017) found that participating in a cancer support group improves survival rates and quality of life, boosts self-esteem, competence, and responsibility, and enhances the capabilities of group members. Although the study highlighted the positive influence of cancer support groups on the overall quality of life, which includes social, physical, and psychological well-being, it did not specifically explore whether such support groups enhance the PWB of CP caregivers. Therefore, there was a need for further research, as proposed in this study, which examined the effects of support groups on the PWB of cancer patients' caregivers.

However, a study conducted in Asia by Chou et al. (2015) explored the influence of support groups on PWB among breast CPs. Chou and colleagues discovered that participation in cancer support groups can improve cognitive processing and reduce distress while enhancing the overall QoL for breast CPs. Nevertheless, more research is needed in Africa, particularly in Kenya, to investigate the effects of participating in support groups. Currently, there is limited information available on support group interventions and the PWB of cancer patients in African and Kenyan contexts.

Furthermore, in the United States, Santarelli (2021) demonstrated that although support groups are beneficial for cancer patients and their caregivers, there is a low uptake of this intervention among prostate cancer patients. Despite the low uptake, the study findings revealed that prostate cancer patients who utilized support groups experienced reduced levels of anxiety and depression, leading to improved psychological well-being (Santarelli, 2021). However, due to the low uptake, the generalization of these results to other types of cancer remains uncertain, particularly in developing nations like Kenya.

Therefore, it was essential to assess the influence of support groups on the PWB of cancer patients' caregivers.

In Africa, support groups have been implemented through partnership approaches. Partners in various African countries have provided support in terms of funding, implementation, and maintenance of support groups, which have been recognized as best practices for managing psychosocial distress caused by chronic diseases like cancer in many African countries (Mutebi, 2014). As mentioned earlier, cancer diagnoses often lead to psychological distress among cancer patients, which can influence their psychological well- being and increase the cancer mortality rate in Africa. Participating in support groups is expected to improve PWB, thus influencing the morbidity and mortality of cancer patients' caregivers in Africa.

Importantly, cancer diagnoses not only directly affect the patients themselves but also have psychological consequences for their family members and caregivers. A study conducted in Nigeria by Akpan-Idiok et al. (2020) confirmed this observation. The study aimed to explore how family members were affected by the burden of care and their coping strategies to manage emotional distress. The findings revealed that many family members experienced psychological distress and sought support through online caregiver support groups. These support groups facilitated information sharing and communication, ultimately enhancing the health outcomes and PWB of cancer patients. However, the study did not specifically examine the contribution of support groups to enhancing the PWB of cancer patients' caregivers.

Wata et al. (2013) in Kenya acknowledged the positive influence of support groups on the increased survival rates of cancer patients. The UICC (2022) also highlighted the significance of support groups in enhancing adaptation, coping, and reducing depression and distress, while enhancing self-esteem and psychological well-being. Similarly, Wafula (2017b) conducted a study on the influence of psychosocial support from support groups in Kenya. He established that support groups improved PWB and were recommended to be included in palliative care services in the country (Wafula, 2017b). Sherman and Okungu (2018) also examined psychosocial intervention services for breast cancer patients and their influence on the QoL in Mombasa, Kenya. The study's findings were that the high cost of services was the major barrier affecting the treatment of BC patients. From the findings, it was not clear whether the influence of support groups on the psychological well-being of CPs is affected by the high cost of cancer treatment services. The study also focused on one type of cancer, which may affect its generalization on other cancer types. Despite the cost implications, it was vital to assess the influence of support groups on the PWB to ensure the value for focused interventions for the CPs.

Meru County has very scanty data on support group interventions and PWB. Nonetheless, a study by Gitonga (2021) studied social and economic support care needs among CPs on treatment at Meru teaching and referral Hospital. They used interview schedules to collect qualitative data from a sample of 22 participants. The data were analyzed thematically. The study established that expensive treatment, long distances from the facility, bad road network, and lack of adequate medical supplies were major hindrances to palliative care in Meru County. Gitonga, therefore, recommended grants and financing to implement online support interventions in Meru County that improve the mental health of Cancer Patients (Gitonga,2020). This study, however, focused on demographic characteristics, and did not measure psychosocial interventions and their effect on patients' PWB. The present study assessed the influence of support groups on the psychological well-being (PWB) of cancer patients' caregivers (CPs).

Based on the literature review discussed, it is evident that participation in a support group is an avenue for patients to share their knowledge and experiences while undergoing cancer treatment. It is also clear that the support groups aid in enhancing psychological well-being of the patients by alleviating psychological distress and enhancing PWB for the CPs. The reviews failed to provide evidence of support group intervention on cancer patients' PWB. Given the importance of support groups in enhancing mental health and alleviating psychological distress, the study established the extent of its influence on the PWB of CPs as it was earlier envisaged.

2.5 Psycho-education and Psychological Well-being

Psycho-education is a therapy modality that is described as a complementary psychosocial intervention for both cancer patient caregivers and cancer patients (Setyowibowo et al., 2022). Psycho-education intervention can be provided; in one on one, in groups, face-to-face, on the phone, and through other approaches which require fewer resources. CPs and their caregivers often find themselves in precarious situations once diagnosed with the disease (Hari et al., 2022). Often, they have no knowledge or information about managing cancer. Therefore, the psycho-education seeks to engage cancer patients and caregivers with self-management alternatives. The scope include sharing knowledge on cancer, formal discussion of concerns, self-management training, sharing of feelings, and social assistance. It is an affordable approach in creating capacity in stress management and enabling better psychological well-being (Wu et al., 2018). It also enhances a positive perception of life and increases satisfaction and happiness, thus enhancing health outcomes (Ogbole & Simon, 2019).

Sun et al. (2019) note that psycho-educational therapy provides patients with information on treatment and problem-solving, and enhancing stress management. Unlike other subjective treatment methods, psycho-education intervention is a more patient-controlled method (Sautier, 2014). It requires active participation of patient and caregivers. Therefore, communication by healthcare workers could increase the likelihood of psycho-education participation (Babiker et al., 2014). Those who have participated, as well as those who have provided psycho-education intervention have said that it is scalable, efficient to administer, and more available than the formal psychosocial interventions which require professional psychotherapists.

Hari et al. (2022) state that psycho-education can help patients with cancer manifestations or cancer diagnosis follow the treatment procedures and confront challenges throughout the treatment period; consequently, it reduces the manifestations of depression and anxiety, and improves their psychological well-being. Psycho-education may be conveyed by knowledgeable non-mental health professionals, handouts, media materials, or web content (Hari et al., 2022).

Basically, psycho-education empowers patients and families with knowledge and recurrence mitigation skills (Atri & Sharma, 2007). It is a fundamental component of compelling emotional well-being as noted by the World Health Organization (WHO) (2012). Assessment of psycho-education of Caregivers Questionnaire (APEC-U) is understandable and capable of assessing psycho-education (Haideret al., 2019). APEC-U has three dimensions: nature of the illness, satisfaction, benefits of the information provided, and information regarding medication use. Thus, this study used APEC-U to measure the psycho-education provided to caregivers and cancer patients.

One of the notable effects of psycho-education is enhancing medication adherence. Thus, Setyowibowo et al. (2022) systematically reviewed the influence of psycho-education in enhancing adherence to treatment on women with BC in Edinburgh, Scotland. They established that psycho-education did not improve medical adherence but reduced anxiety, improved PWB, and had little effect on depression. This implies that psycho-education might enhance the psychological well-being of cancer patients. However, this should be substantiated with an empirical study like the one suggested herein. Similarly, Lu et al. (2021) investigated the QoL and PWB of American Chinese BC survivors, which acted as a group mentor in providing psycho-education and support to other breast cancer patients. They noted a decrease in depression and anxiety in the breast cancer patients who received psycho-education, and an improvement in the PWB was noted. Nevertheless, cultural differences may complicate the duplication of Lu et al. (2021) findings on PWB of American Chinese BC survivors since characteristics such as demographics of the patients may differ in different regions (Gopalkrishnan, 2018). Thus, there was need for such a study to be undertaken in the context of Kenya.

Ying et al. (2020) reviewed the advantages of psycho-education on CPs in China. The study demonstrated that psycho-education lowered anxiety and depression, while increasing confidence. Therefore, it was recommended that internet-based psycho-education should be employed in treating CPs (Ying et al., 2020). While these interventions work very well in developed countries, their effectiveness in Africa and Kenya needs to be ascertained. Further, this study did not establish whether psycho-education improved psychological well-being, hence the birth for the study, which filled the noted gap.

İnan and Üstün (2018) expounded the effects of psycho-education by exploring the life experiences and perceptions of their PWB after being involved in psycho-education in Turkey. The study's results showed positive changes in self-concept, view of life, and relationships, enhancing their PWB (Chou et al., 2016). However, the study did not show any changes in cognitive functioning. Similarly, in Korea, Park, and Bae (2017) conducted a systematic review of 10 databases investigating the influence of psycho-education intervention on the PWB of cancer survivors. They established that psycho-education intervention enhanced QoL and self-efficacy and reduced symptoms of cancer disease. However, this study missed to establish the impact of psycho-education on the PWB of CPs, which this study addressed.

Similarly, Lehto (2017) observed that psycho-education intervention improved the PWB of lung disease patients in the USA. Though mental health services were encouraged for such patients, the study did not discuss the effect of such interventions on the PWB of CPs. A different study by Sabrina (2019) among 28 BC patients and 21 caregivers established that psycho-education plays an essential role in the PWB of breast CPs and caregivers involved in psycho-education sessions. The study also noted that psycho-education provided information allowing patients to connect, feel more understood, and feel emotionally secure (Sabrina, 2019). The study concluded that family involvement in psycho-education improves treatment outcomes.

Ryan (2020) also noted that 3,300 women are diagnosed with breast cancer yearly, where 20-50% of these suffer psychosocial distress, leading to poor treatment adherence and stagnated recovery from treatment in New Zealand. In the study Ryan (2020) used HAD’S instruments on BC patients, and found that anxiety and depression were minimized with psycho-education, thus noting that it is valuable since it helped women cope. This implies that psycho-education might enhance the psychological well-being of cancer patients, and the tool was adopted and applied in assessing the extent to which it enhances PWB of cancer patients in oncology clinics in Meru County.

In Africa, Uwayezu et al. (2022) noted that psycho-education affects the quality of living, physical, emotional, spiritual, and finances of cancer patients. The study emphasized the need to include psycho-education in the curriculum for cancer care in Africa. To illustrate strategies used to manage breast cancer in Nigeria, Onyedibe and Ifeagwazi (2021) noted that breast cancer threatens the country’s health budget. Therefore, coping strategies must be worked out to manage the burden. They used group psycho-education on breast cancer patients to determine whether it affected their PWB. The study found that psycho-education improved acceptance and positive reappraisal, further enhancing the PWB of breast cancer patients. Hence, group psycho-education was noted to influence the PWB of CPs and therefore recommended as a psychosocial intervention in oncology services in Nigeria to increase survival rates for the CPs (Onyedibe & Ifeagwazi, 2021). There was therefore, a need to determine the influence of this intervention on Kenyan cancer patients, specifically in Meru County, which was achieved by this study.

In related research done in Zambia, Namushi et al. (2020) investigated how affective disorders can be decreased by responding to the knowledge gaps among breast cancer patients. The study aimed to establish psycho-education's influence on emotional disorders among BC patients. The study identified that, through psycho-education, BC patients sought information about their disease, which further helped them to improve their emotional disorders and PWB (Beauty et al., 2020).

The study recommended psycho-education to meet the psychological needs of CPs. However, the study did not explore how psycho-education would have affected a patient's life and well-being. Further, Setyowibowo et al. (2022) conducted a systematic review of medical journal databases in Africa to examine studies conducted in Africa. Most of them showed the effect of psycho-education on treatment adherence among CPs. The review further pointed out that psycho-education helps give information and share concerns, express emotions, and solve problems (Navidian et al., 2012). This can enhance recovery and adherence to medication. It also helps reduce anxiety and depression, hence enhancing QoL and PWB (Navidian et al., 2012).

Cancer is a significant burden in Kenya, just like other African countries. The study by Wambalaba et al. (2019) indicated that depression and suicide risk were very high among BC and cervical cancer patients, which could be reduced with good PWB. The study also found that psychosocial interventions can mitigate high morbidity. However, there is very scanty data on psycho-education and PWB among cancer patients in Kenya (Wambalaba et al., 2019). Similarly, Angachi (2014) conducted a cross-sectional survey on psychosocial challenges affecting cancer patients attending Moi Teaching and Referral Hospital in Kenya. The study focused on challenges, but, did not assess any intervention, including psycho-education. In a different study, Muriungi et al. (2013) sought to establish the benefits of psycho-education among diploma students enrolled at Kenya Medical Training College and examined the influence of psycho-education on depression symptoms and the PWB. The finding of the study was that psycho-education helped reduce the symptoms of depression and improve PWB. However, the study was not done among cancer patients. Therefore, there was need for such a study to assess the influence of psycho-education on the PWB of CPs, which this study addressed.

Although there is scanty literature, it is clear from the literature assessed that psycho-education is essential in enhancing the PWB of mental illness patients. Its use has been reported to influence the PWB of patients with specific types of cancer. However, its use in managing cancer patients with most different cancer types is limited. Consequently, the influence of psycho-education on PWB of cancer patients can only be deduced based on the studies among cancer patients. Thus, the current study helped understand how psycho- education could influence PWB among cancer patients.

2.6 Moderating effect of Financial Constraints

Financial constraint is any fiscal-related factor that affects the kind of treatment a cancer patient gets and the quality of management and follow-up care they receive (Smith et al., 2022). According to Jagsi et al. (2018), the cost of cancer diagnosis and treatment may have long time financial implications despite the available medical insurance. Cheryl et al. (2016) noted that cancer treatment and cancer itself might affect employment or the functional ability of the patient and the cancer patient’s caregiver. A cancer patient who cannot work loses their health and jobs. Some may lose their employers' insurance benefits, leading to financial constraints affecting their psychological well-being (Dee & Chino, 2022). Similarly, Shankaran et al. (2022) indicated that financial constraints in cancer treatment are common, and their prevalence varies across social demographic groups. Consequently, there is low treatment uptake and a high mortality rate among CPs. Insurance coverage for cancer patients below 60 years is commonly through their employers. Cancer patients aged 45 years and below have more common financial problems due to their developmental needs, like educating their children, paying loans, or home mortgages (Shankaran et al., 2022). This harms the PWB of cancer patients, and may increase the mortality rate. Many cancer patients aged between 20 and 30 years may not have any medical coverage. Consequently, they may have their education interrupted or may be transiting from school to the workplace, which could also have a negative influence on their PWB (Smith et al., 2019).

The cancer patient population in the USA in 2014 was approximately14.5 million (Azzani et al., 2015). Due to advancements in early detection and medication, as well as the growing elderly population, it was projected that the number of cancer survivors would reach 18 million by 2022. Additionally, the cost of future cancer treatments is on the rise. Another study by Khera et al. (2022) in the USA involved more than 400 cancer patients to establish the prevalence of cancer with financial hardships. The results illustrated that financial hardship was high, at 48% to 68%. Comparing cancer patients with cancer-free individuals, Khera et al. (2022) in their study identified that CP have higher out-of-pocket expenses even after treatment. In addition, cancer management therapies have changed cancer treatment and positively affected patients' health outcomes and survival (Khera et al., 2022). Additionally, Tran and Zafar (2018) indicated that the cost of drugs and psychosocial interventions is becoming a problem due to continuous increases in cancer treatment leading to poor adherence to treatment, worse financial well-being, and poor psychological well-being.

Similar research by Bestvina et al. (2014) in the USA on the annual expenditure of a cancer patient revealed that cancer treatment spends approximately between 1,730 and 4,727 dollars which is 976 to 1,170 dollars more than cancer-free patients. This study illustrated that the increased cost of cancer treatment affected adults of all cohorts despite their medical insurance status. Data analysis by Bernard et al. (2011) from a medical expenditure panel survey done from 2001 to 2008 illustrated that 13.4% of cancer patients aged between 18 to 65 years had expenditures more significant than 20% of their income (Bernard et al., 2011). It also found out that CPs who experienced increased expenditure were mostly aged between 55 to 64 years, with lower financial income, single, low level of education, and unemployed (Bernard et al., 2011). A similar study done in the USA by Narang and Nicholas (2017) revealed that patients with cancer spent an average of 23.7% of their household income, and 10% spent more than 60% of their household income. The increasing treatment burden has been attributed to delayed and poor access to cancer treatment (Guy et al., 2015).

Ryu and Fan (2022) examined the correlation between financial worries and psychological distress among adults in the US. They utilized facts from the National Health Interview Survey (NHIS) conducted in 2018 and conducted hierarchical regression analysis. The results revealed a strong association between higher financial worries and increased psychological distress (Ryu & Fan, 2022). Moreover, this association was intense among single people, the jobless, and those from humble backgrounds (Ryu & Fan, 2022). These findings indicate the need for accessible financial counselling programs and public health interventions to address financial worries and their negative influence on PWB, particularly among cancer patients (Ryu & Fan, 2022).

A related study in the US focused on the effects of financial hardship on cancer patients. The research conducted by the Pew Research Center (2021) found a negative relationship between financial worries, anxiety, overall mental health, and financial well-being (American Psychological Association, 2015; Archuleta et al., 2013; Park et al., 2017; Summers & Gutierrez, 2018). The study also highlighted that individual with health problems, such as cancer patients, often face medical expenses, debt, and financial burdens that can negatively influence their QoL (Fenn et al., 2014). Even individuals with health insurance can experience significant financial problems related to cancer treatment (Winstead, 2022). Therefore, the cost of cancer treatment may also influence the availability of PI and influence the PWB of CP caregivers.

Smith et al. (2022) noted that, out of CPs population, at least a half of them experience constraints and fiscal related burdens due to the expense for managing , particularly affecting socioeconomically vulnerable individuals and leading to adverse economic and health outcomes. Chi (2019) highlighted those psychosocial interventions such as individual counselling, family counselling, and support groups can help reduce cancer-related distress, even if financial challenges cannot be fully resolved. However, Smith et al. (2022) acknowledged that such interventions require financial resources, especially in developing countries like Kenya. This implies that financial constraints may limit the availability of psychosocial interventions, which in turn can influence the PWB of CPs. This study aimed to provide empirical evidence on the potential moderating effect of financial constraints on the relationship between psychosocial interventions and the psychological well-being of cancer patients.

The financial constraint of cancer affects not only the patient but includes the familyas well as the society. The financial burden in all African countries is eminent due to expenditure on medical care and poor work productivity due to illness and early deaths caused by cancer (Mustapha et al., 2020). It is a major challenge to pay for cancer management for both the patient and caregiver due to the loss of financial income as a result of the cost of treatment and low work productivity due to the effect of the illness (Berraho et al., 2012). Notably, malignant tumors are an upcoming medical problem in Africa that requires to be addressed effectively to mitigate their increasing incidences and death rates (Bona et al., 2021). Due to population growth and aging in Africa, cancer is expected to increase to 70% by 2030, while cancer mortality rates are projected to increase by 30% beyond the global average in 20 years (Bona et al., 2021). This exponential growth comes with a serious financial burden which ought to be managed effectively.

Further, a study was carried out in Nigeria by Mustapha et al. (2020) on the financial burden of cancer on patients treated at a high-level medical facility in southwest Nigeria. The results established that, for CPs to be able to pay for their prescribed treatment, most families sold their properties, took loans, and children could drop out of school for them to finance the treatment. The study illustrated the cost of cancer management as the highest for the cancer patients at stage 4 of the cancer disease. This is because, they receive targeted therapies and stay longer in hospital, which is more expensive than stage three, second stage and stage one, respectively (Mustapha et al., 2020). The same observation was made in the studies done in Morocco by Berraho et al. (2012). However, despite the generally high cost of cancer management in African countries, the actual moderating effect of financial constraint on the relationship between psychosocial interventions and the PWB of CPs is unknown. Such studies are essential to apply relevant interventions to cancer patients better as the continent strives towards effective and quality health care.

Cancer affects Kenyans of all ages and from all social and economic backgrounds, with its risk getting higher as age progresses (Subramanian et al., 2018). It is Kenya's second leading cause of death following cardiovascular diseases (Lehmann et al., 2020). Many cancer cases are diagnosed late when there are limited treatment options which result to poor prognoses and high mortality rates (Boyle et al., 2019). This could be associated with financial constraints. Njuguna et al. (2015) conducted a study at MoTRH Hospital in western Kenya which helped to demonstrate the reasons for non-adherence to treatment by childhood cancer patients. The study found that the most common reasons were; financial challenges, 46% of the research participants, lack of medical insurance, 26% of the respondents, and transport challenges, 23%. The survival rate of those that defaulted to the clinic was 20%, and the families reported that they were discouraged by the cost of cancer treatment (Njuguna et al., 2015). The study also established an average monthly income per household of every three in 10 families was about 44 dollars. In addition, cancer treatment has negatively affected other family expenditures like food and education in about 85% of cancer patients' families (Njuguna et al., 2015). Although the study was done on reasons for non-adherence to cancer treatment, it focused only on children and their families. The study did not uncover the moderating influence of financial constraints on the correlation between psychosocial interventions and the PWB of adult cancer patients. Thus, it was necessary to conduct a new study in Kenya to examine how financial constraints might moderate the relationship between psychosocial interventions and the psychological well-being of cancer patients.

The exorbitant cost of cancer treatment emerged as a hindrance for patients seeking treatment in Kenya. As highlighted by Lehmann et al. (2020), although the Kenya National Insurance Fund (NHIF) began covering radiotherapy and chemotherapy in 2016, it does not provide full coverage for certain aspects, including psychosocial services. Consequently, patients are left with a substantial financial burden to bear. A survey conducted at MoTRH in Kenya revealed that only 22% of the participating families possessed the NHIF card (Njuguna et al., 2015). Additionally, Parker et al. (2021) observed that CPs and their caregivers can still encounter financial constraints despite the presence of a government-funded healthcare program.

Meru county is ranked 10th in the country in new cancer cases, with 15% of cancer patients seeking treatment from Kenyatta National Hospital coming from the county (Kenya Medical Research Institute [KeMRI], 2019). Out of the 40,000 new cancer patients diagnosed every year in Kenya, about 3,000 cases are diagnosed from the residents of Meru County (KeMRI, 2019). A study done in Meru County by Kiraki, et al.

(2019) illustrated that cancer patients mostly use spiritual therapy and vitamins and mineral supplements to manage cancer. Though there are other alternative interventions for cancer patients in Meru, there is a need to assess the influence of the PIs on the PWB of CPs, and assess the interplay of financial constraints. Another study by Mutwiri (2019) carried out in Meru Teaching and Referral Hospital (MeTRH) similarly noted that maintaining a proper diet, managing stress and increasing knowledge are essential factors that reduce mortality rates for CPs. However, some of these measures were greatly hampered by limited income of the affected people.

The research conducted by Gitonga et al. (2020) focused on the social-economic support care needs of CPs receiving treatment at the Hospice and Palliative clinic at Meru Teaching and Referral Hospital. The findings of the study indicated that although the majority of cancer patients possessed NHIF cards, they encountered various difficulties and obstacles, including delayed approval and partial payment of the hospital bills. According to Gitonga et al. (2020), this resulted in mental stress, delayed or missed treatment, and a high treatment cost, leaving many families poor. The study illustrated that financial constraints affected patients’ treatment since the patients were unable to pay for chemotherapy and radiotherapy (Gitonga et al., 2020). This study did not explain if financial constraints affected the county’s patient access to psychosocial intervention services. From the literature reviewed on cancer management in Meru County, there is no research showing the effect of financial constraints on the association between psychosocial interventions and the psychological well-being of cancer patients. This is an apparent gap which the current study addressed.

Interventions aimed at mitigating financial hardship have the potential to reduce the overall influence experienced. Since cancer patients are already distressed by the disease, additional distress emanating from financial constraints might overwhelm them. In this regard, patient preferences for and adherence to cancer treatment may be influenced by the impact of financial toxicity on household welfare (Carrera & Yousuf, 2018). Thus, addressing financial constraints might enable the patients to access medical and psychosocial interventions, resulting in the patient's PWB. Based on this argument, it can be stated that financial stability might enhance access to psychosocial interventions resulting into better PWB of the patient. Thus, financial constraints might act as a moderating factor in the association between psychosocial intervention and the PWB of cancer patients. However, this argument needs to be scientifically tested, hence the birth of the study.

The financial constraints brought about by the disease burden might interfere with the patients' PWB (Park et al., 2017). Given that financial constraints might result in psychological distress, this would require psychosocial interventions that could need more financial inputs. This could be argued that the need for psychosocial interventions for cancer patients and available medical interventions could bring about financial constraints. Thus, providing psychosocial interventions might depend on the available finances, which could influence the patient's PWB. Thus, it could be argued that financial constraints could moderate the relationship between psychosocial interventions and cancer patients' PWB. However, this ought to be ascertained via an empirical study like the one suggested herein, which actually happened.

2.7 Summary of Literature Gaps

From the literature review, few studies have sought to establish the psychological well-being of CPs. There is no clear way of ascertaining or measuring a person's psychological well-being. Even though most of the studies reviewed utilize depression and stress scales, these scales seem to only touch on mental health and do not exhaustively cover the six dimensions of PWB, as outlined by Lambert et al. (2019). The only study that has used a different scale to measure psychological well-being is the one carried out by Kansiime et al. (2022), which employed the CGQ-28 questionnaire. Nonetheless, the scale was used among caregivers rather than cancer patients.

The literature review documented various benefits of individual counselling, such as enhancing compassion and self-esteem, learning skills to handle challenging situations, achieving goals, and making healthy decisions (Teo et al., 2019; Gabriel et al., 2020; Wang'ombe and Kathungu.,2021). The review also indirectly indicated the influence of individual counselling on PWB (Periasamy, 2017; Zhang et al., 2019). However, this relationship was not directly explained throughout the review, but was suggested through assumptions. This called for further studies that could provide empirical proof of IC's effect on PWB.

The literature review showed that many patients and their caregivers benefit from family counselling in terms of knowledge and how to take care of the patients (Venter et al., 2020). It also helps the caregivers be psychologically prepared to handle various circumstances their patients might be going through (Pfaendler et al., 2015). Moreover, the study by Kissane et al. (2016) indicated that such family counselling interventions help alleviate caregivers' psychological distress. However, there was a need for more information concerning the influence of FC on PWB.

Additionally, the literature reviewed indicated that support group is an avenue for cancer patients to share their knowledge and experiences while undergoing treatment for cancer. It is also clear that the support groups aid in enhancing the psychological well-being of the patients by alleviating distress, hence enhancing PWB for the CPs. However, there is little or non-existence empirical evidence of how support group interventions affect cancer patients' PWB locally. Given the importance of support groups in enhancing mental health and alleviating psychological distress, it is essential to establish its influence on the PWB of CPs. Similarly, from the literature reviewed, psycho-education is very important, especially among care providers of mental illness patients (Hari et al., 2022). Its use has been reported to influence the QoL of mental health patients. However, its use on cancer patients and its influence on PWB is limited and could only be deduced based on studies among cancer patients.

It is apparent from the reviewed studies that there is a limited empirical investigation on how financial constraints might moderate the relationship between psychosocial interventions and PWB. Moreover, the argument that psychosocial interventions might reduce the distress associated with financial constraints is difficult to decipher, especially in the context of developing countries where such services require stable financial status. Nonetheless, the need for finances to access such services implies that financial constraints might influence the PWB of cancer patients. This indicates that financial constraints has potentials to moderate the association between psychosocial interventions and the PWB of cancer patients. The proposed study aimed to ascertain this empirically using data from oncological clinics in Meru County.

2.8 Theoretical Framework

This section provides a succinct overview of the theories that were used to guide this study. The theories tenets and their relevancy to this study were also explained. The current study was anchored on social cognitive theory and person-centered theory.

2.8.1 Social Cognitive Theory (SCT)

he SCT originated in 1986 as an extension of the social learning theory (SLT) proposed by Albert Bandura in the 1960s (Culatta, 2011; Bandura, 1989). SCT emphasizes the dynamic and reciprocal interaction between individuals, their environment, and their behavior as the basis for learning (Bandura, 1989).

Central to SCT is the recognition of the influence of social factors on human behavior and the interplay between individuals, their environment, and their actions (Thojampa & Mawn, 2017). The theory reiterates that a change in the environment automatically causes changes in the person (Thojampa & Mawn, 2017), which may be true. Consequently, there are three principles of the social cognitive theory; the psychological person, the environment and behavior proportionally influence each other. The other principle stipulates that individuals are best perceived in terms of cognizant mental capacities. These capacities empower them to emblematically address issues, to consider themselves, and to take the lead of their advancements (Cervone & Williams, 1992; Bandura, 1986, 1997).

The tenets of social cognitive theory are observational learning, behavioral capabilities, reciprocal determination, reinforcement, expectations, and self-efficacy. The tenets of SCT that were applied in the current study are self-efficacy, behavioral capabilities and reciprocal determination. Self-efficacy is a leading and direct indicator of conduct. It is the intention that Albert Bandura defines as individuals' convictions about their capacities to create assigned degrees of execution that exercise impact over activities that influence their lives (Nieman et al., 2021). It is influenced by an individual's specific capabilities, environmental and other individual factors (Lazaro et al., 2019). According to SCT, a personal feeling of control works with a difference in well-being attitude and relates to a feeling of command over one's current circumstance and behavior (Bandura, 1999).

Self-viability convictions are comprehensions that decide if behavior change will be started, how much exertion will be used, and how it will be supported despite obstructions and disappointments (Young et al., 2016). Thus, this tenet was appropriate in this study since it helped explain how PWB of CPs could be improved through the application of psychosocial interventions. The tenet specifically helped understand how individual, family, support, and groups counselling, enhances the PWB of cancer patients.

Reciprocal determinism by Albert Bandura explains that the environment influences the actions of a human being, the individual and behavioral factors (Nickerson, 2022). This implies that the environment determines how an individual thinks and how the person's behavior influences the environment (Joseph et al., 2017). This includes an individual's actual environment and social relationships. Reciprocal determinism stresses that the environment, individual thoughts, self-beliefs, and ideas determine behavior and that people influence how the environment works through their behavior and attitudes (Jyoti et al., 2021). Reciprocal determination emphasizes that an individual's behavior can be modified when they can think through and make choices based on the stimuli in their particular situations and through external social activities (Young et al., 2016).

Corresponding determinism hypothesizes that there is plausible progress inside an individual, assuming that the individual is given practical assistance. However, external factors will also continuously influence the individual (Nickerson, 2022). Thus, reciprocal determinism helped explain how behavior change brought about by individual counselling, support group participation, and psycho-education may help in the PWB of CPs. These interventions might help alter attitudes, beliefs and ideas.

After the environment influence the individual’s thinking (Bandura, 2011), their subsequent behavior affects the environment (Joseph et al., 2017). This is an ongoing cycle in which the environment influences an individual’s emotions and thoughts; while, these thoughts and emotions impact the person’s behavior, then the individual’s behavior affects the environment. Subsequently, a person shapes his/her identity based on what he /she perceives and then reflects it to the community in which he/she lives (Nickerson, 2022). Since the family is part of the cancer patient environment, their (cancer patients’) attitudes, beliefs, and ideas may influence how their family treats them. Consequently, the theory was appropriate in explaining how family counselling might change the attitudes, beliefs, and ideas of caregivers (family members) toward cancer patients. This may, in turn, alter cancer patients’ perception of their caregivers, which might enhance their psychological well-being (PWB).

Reciprocal determinism was applied in the current study in that the behavior of a cancer patient interact with his / her environment and the individual variables to influence their psychological well-being. A person who discovers that he or she has cancer (personal factor) may experience low mood and withdraw from his/her family (behavioral factor). In return, this results in the person or family member seeking appropriate intervention to help the patient or family member deal with low mood and withdrawal (environmental factor). The cancer patient or the family member can identify whether or not the intervention played any role in enhancing his/her mood, withdrawal feelings, and family relationship. An improvement in mood, withdrawal feelings, and family relationships causes an improvement in the psychological well-being of a CP and the family member. Individual and family counselling interventions target change in self-efficacy related to improved psychological well-being, assuming that improvement in beliefs will translate to behavioral outcomes. This tenet was applicable in this study since it informed how individual counselling, family counselling, psycho-education, and support groups influence patients' symptoms and enhance PWB among cancer patients.

Albert Bandura explains behavioral capability as the individual's natural capacity to play out through essential information and abilities (Guarino et al., 2020). It refers to an individual's capability to modify a specific behavior by learning essential skills and relevant knowledge. CPs and family members received information and skills from healthcare providers and counselors. They had an opportunity to share their experiences in terms of knowledge and skills with their peers, learn from their peers, and observe the behavior of others. Applying the essential acquired skills, knowledge about cancer, and its treatment in performing a behavior successfully, causes an improvement in the PWB of a CP and the family member.

The tenet of behavioral capability was applied in this study in that, patients can identify whether knowledge and skills acquired through one-on-one counselling, reading materials, support groups, and psycho-education approaches have any effect on their psychological well-being. SCT focuses on the unique dimensions of an individual with any illness, how an individual maintains his or her behavior, and how he or she gains knowledge, considering the person's social environment (Thojampa & Mawn, 2017). This theory provided a theoretical framework for assessing the effects of PIs on the PWB of a cancer patient.

This theory however, possesses inherent weaknesses as it explains the application of psychosocial interventions with reference to past experiences observed or learnt from the care givers. It can explain the influence of individual, group, family and psycho-education counselling interventions on PWB of CPs. However, it gives minimal attention to patient’s emotions, attitudes, motivation, difficulties, natural constraints and compounding factors which influence their behavior such as financial constraints. Therefore, it dictates behavioral outcomes out of experiences rather than creating a conducive environment for patients to feel secure and be honesty with what troubles them apart from sickness. This was complimented by adopting the persons centered theory.

2.8.2 Person-centered Theory (PCT)

PCT was developed out of the concepts of humanistic psychology by Carl Rogers, an American psychologist, in the 1940s (Walsh, 2013). The humanistic methodology sees individuals as practical and independent, able to solve their problems, understand their abilities, and change themselves in productive ways (Seligman, 2006). Roger’s view of humanity is phenomenological in that humans structure themselves according to their viewpoint of real life and are inspired to achieve their full potential as they identify it (Walsh, 2013). PCT posits that every individual possesses the capability and inclination for personal development and transformation (Rowe, 2017). According to Rogers, humans inherently possess immense potential for self-awareness, self-direction, and positive personal growth, which can be actualized when a therapist, who is congruent, establishes psychological connection with a client experiencing anxiety or incongruence (Rowe, 2017).

The primary goal of PCT is to promote a person’s ability to self-actualize (Maurer & Daukantaitė, 2020). PCT is grounded on the basis that individuals are dynamic self-directing organic entities and are consistently developing toward more remarkable intricacy, realizing those potentials that improve themselves (Mcleod, 2007). In this hypothesis, the therapist trusts the individual's internal assets for development and self-acknowledgment regardless of their difficulties and natural constraints. The psychotherapist believes in the client's natural development propensity and right to self-assurance through the obligation to a non-directive demeanor (McLeod, 2014). The therapist takes the remedial approach to establish an environment of opportunity and security (McLeod, 2014). The client is the lead person, communicating meanings, goals, and intentions and propelling the process of self-definition and differentiation.

This theory was applicable in assessing how psychosocial interventions enhance the PWB of a CPs. Since cancer patients receiving any psychosocial intervention are under disease distress, the attitudes of the person-centered theory are essential and need to be present in the service provider. Giving cancer patients a chance to talk about themselves, listening to them, and empathize with them may help CP settle in the middle of a problem. This one-on-one conversation may further help them think more reasonably; hence, making effective decisions. When the CP does not feel understood and accepted, they may lose hope in their PWB, which may affect their decision-making and future care (Hales et al., 2021). The concepts of PCT that were applied in the current study are; empathetic understanding, unconditional positive regard, and congruence.

Empathy is the central concept that nurtures the advancement of a working alliance with the patient, preparing the ground for therapeutic change (Moudatsou et al., 2020). Empathy is the capacity to comprehend and empathize with the emotions of others (Oxford English Dictionary, 2023). The elements of empathy are emotional, psychological, and behavioral (Hasgul & Serpen, 2014). The emotional dimension includes the aspects of being compassionate and honest unconditional acceptance of the CP (Moudatsou et al., 2020). The psychological aspect is the interpersonal consciousness and the ability to appreciate the CP's situation (Moudatsou et al., 2020).

Carl Rogers described the empathetic relationship as the therapist's skill to comprehend the experiences and awareness of the person with consciousness (Hales et al., 2021). Rogers acknowledged that people are adamant about alterations; however, through working to understand life from another person’s context, they accept change in themselves (Watson, 2002). The empathetic relationship of the health care service provider with the patients influences their ownership in developing their treatment roadmap, directed treatment interventions, and enhancing the patient’s fulfillment from therapy (Molina & Gallo, 2020). This improves the quality of care and positively promotes the patient's counselling experience (Meibodi et al., 2021).

This may provide the CP with an environment to reflect on their inner thoughts, emotions, and perceptions which Elliott et al. (2011), says may result in insights into their resource activation, problem actuation, emotional bond, goals and tasks, fear, and clarification of meaning. Cancer patients' perceptions of feeling understood by the therapist influence the intervention outcome on PWB. This concept underpinned individual counselling, family counselling, and support group variables.

It was therefore, appropriate in this study since it helped explain how empathy will help build the counselling relationship and stimulate the cancer patient's self-exploration. It helped assess the CP's experience by considering whether the CP believes that the therapist took their perspective and had compassion and if the therapist attempted to help him or her in dealing with psychological problems, enhancing PWB.

Unconditional positive regard involves accepting and helping another person precisely as they are, without evaluating or judging them, despite their challenges, obstacles, or confusion (Wouters et al., 2018). Humanistic psychologists consider unconditional positive regard a significant contributor to well-being (Murphy et al., 2020). The foundation of this dimension is the conviction that each person has the innate psychological power to improve themselves (Murphy et al., 2020). Unconditional positive regard gives a chance for patients to explore their feelings and experiences more fully, discovering attitudes of themselves that have been concealed or blocked from self (Wouters et al., 2018). From Roger's perspective, when people feel safe, honesty follows, which is an essential component of change (Maurer & Daukantaitė, 2020).

As per Rogers, unconditional positive regard (UPR) entails establishing a client-centered environment that fosters their well-being and growth (McHenry & Lauren, 2018).An environment of unconditional positive regard benefits the patient. When therapists offer no judgment, the clients feel less frightened and can freely discuss their thoughts, emotions, and activities (Meibodi et al. (2021). With acceptance, clients are encouraged to find self- acceptance and freedom to think for themselves (Bozarth, 2013). Provided with such an environment to think, the CP may begin to take care of their inner resources (Bozarth, 2013).

Carl Rogers's point of view on humanity is that humans need to meet their abilities, and unconditional positive regard, helps them reach self-actualization (Maurer & Daukantaitė, 2020). Unconditional positive regard brings back expectations by demonstrating that they are showing people that they are adored and acknowledged (Maurer & Daukantaitė, 2020). Counselling relationships that promote acceptance, individuality, and authenticity enhance self-actualization by allowing the patients to learn that there is no problem with their
thoughts, behavior, and feelings (Murphy et al., 2020). Self-accomplishment arouses inner strength that enhances achieving objectives despite obstacles (Maurer & Daukantaitė, 2020).

According to Rogers, questionable conduct is modified with empathy, compassion, and acceptance (Kaufman, 2020). Through the climate of UPR, the therapist may help the CP express their genuine emotions without fear of rejection, which may pave the way for positive changes (Farber & Doolin, 2011). The environment of UPR influence positive changes in satisfaction, family communication, mutual support, information disclosure, treatment choice, and CP care.

This concept was applicable in the study where the support group counselor is the helper, not a leader, assuming responsibility for establishing a safe and therapeutic space wherein support group participants can engage in sincere and significant interactions, promoting self-determination and empowerment, and members can have their preferences and bring about change for themselves. The concept also underpinned individual counselling, family counselling and financial constraint as moderating variable.

Congruence (genuineness) is the balance between a therapist's inner experience and outward expression which makes a therapist authentic (Barkham et al., 2021). This establishes trust in the working relationship while serving as an example for the clients. Clients can communicate their thinking and emotions, being themselves without pretense (Barkham et al., 2021). The feeling of safety helps the CP to engage in the therapeutic process in a better way. This concept was applied in individual counselling, support group, and family counselling since it helped determine whether building trust in the relationship influence therapist intervention, experience sharing, stigma reduction, mastery, satisfaction, and bond relationship, which may influence PWB.

This theory was appropriate for this study because it helped decipher how a counselor’s role in individual counselling could help cancer patients’ PWB. For instance, if the counselor advances the circumstances for a change instead of getting things done to achieve explicit changes, the patient will likely own the change that comes about as a consequence of counselling. However, if the cancer patient feels that the counselor does things to bring about a specific change, in that case, the patient might feel like he/she is being forced to do things beyond ability which will lower self-understanding, self-confidence, and ability to make good decisions. The theory was also appropriate in explaining the effect of support groups on the PWB of cancer patients. For instance, group leaders need to provide conditions that allow members to increase their understanding of their conditions and how they can navigate through trying situations rather than forcing members to behave in a prescribed manner.

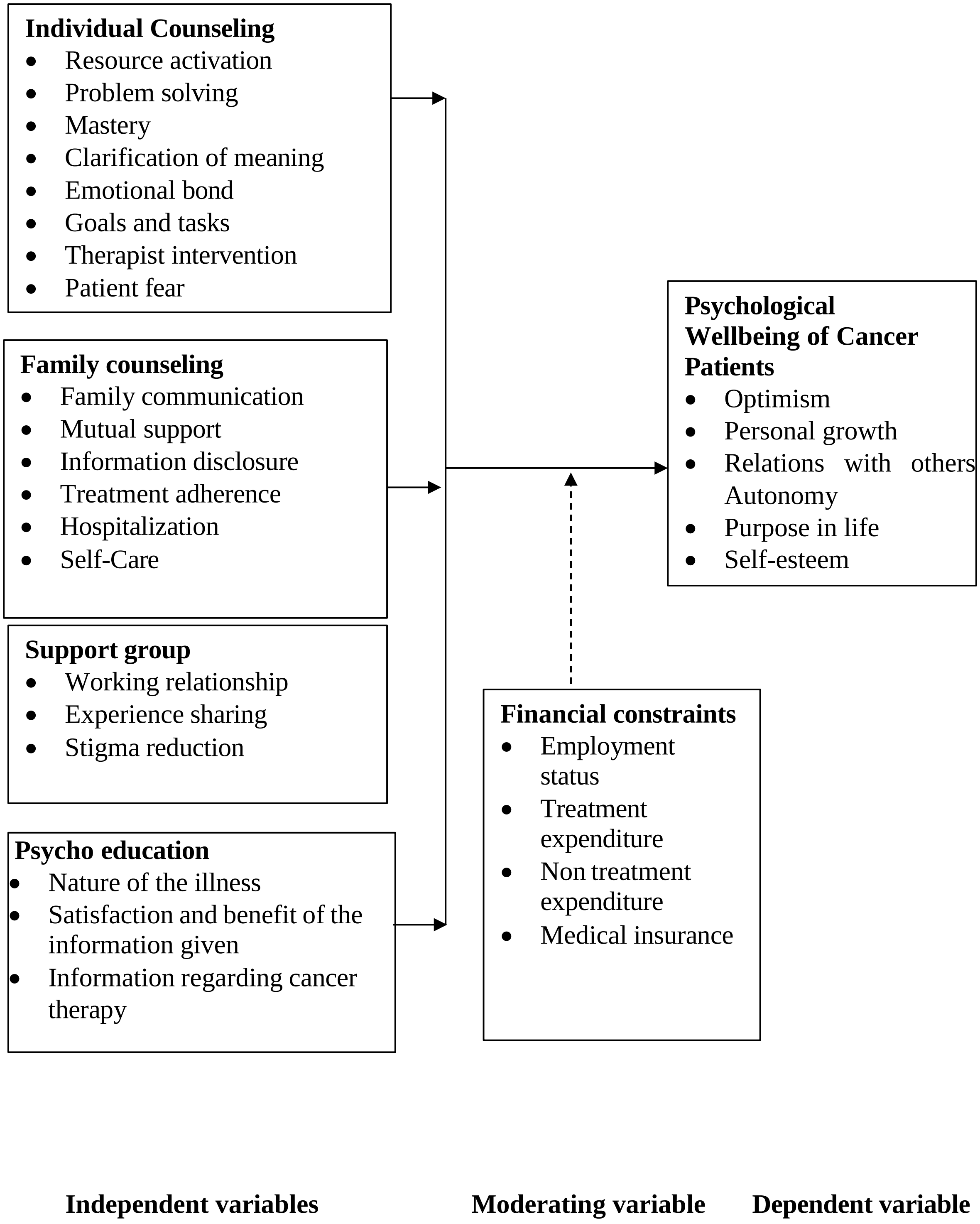
The theory was also appropriate since it helped understand how financial constraints could moderate the association between PIs and the PWB of cancer patients. For instance, since the theory rotates around fostering a precise empathetic comprehension of a client, the counselor could help the patient handle his/her thoughts and feelings when the counselor provides the needed conditions for the patient to come up with ways of handling financial issues. This also allowed the counselors to convey understanding to the patient and work with him/her to grow and explain the comprehension and its effect on the client's decisions and activities. The theory helped explain the importance of support groups and family counselling in enhancing the PWB of cancer patients. Moreover, the theory was appropriate in explaining how psycho-education helps in enhancing the PWB of cancer patients.

2.9 Conceptual Framework

The diagram illustrating the study constructs is depicted in Figure 2.1. The framework visually presents the connection between the dependent variable and the independent variables along with their corresponding indicators. In this framework, individual counselling, family counselling, support groups, and psycho-education are considered independent variables, while psychological well-being (PWB) serves as the dependent variable.

Figure 2. 1

Conceptual Framework



As indicated in Figure 2.1, individual counselling involves examining how different aspects of personalized counselling can contribute to enhancing the well-being of the patient. It encompasses various parameters such as resource activation, problem actuation, mastery, clarification of meaning, emotional bond, goals and tasks, therapist intervention, and patient apprehension.

The second independent variable was family counselling, which sought to enhance family communication with ultimate improvement patients' well-being. It was characterized by the presence of family communication, satisfaction, mutual support, information disclosure, treatment adherence, hospitalization, and self-care aspects. The variable for the support groups entailed understanding working relationship and opportunity to share experiences. It was determined by parameters such as working relationship, experience sharing and stigma reduction. The psycho-education sought to help patients understand the nature of the illness and improves coping strategies. Its indicators included the nature of the illness, satisfaction, benefits of the information provided, and information regarding cancer and medication use constituted the indicators.

Financial constraints were concerned with whether employment status, treatment expenditures, non-treatment expenditures, and medical insurance could affect their access to counselling, participation in a support group, and psycho-education interventions and impact their psychological well-being. In this study, financial constraint was conceptualized as moderating variables and were measured using the COST-FACIT (Version 1).

Finally, the dependent variable, that is, the psychological well-being sought to understand whether the cancer patient can function autonomously, master his/her environment, continue with personal growth, relate with others, have a purpose in life, and accept his/her state of physical health. PWB was characterized by features entailing self-determination, environmental ability, personal development, purpose in life, positive relation with others, and self-awareness.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter illustrates the methodology that was employed to conduct the study. It primarily emphasizes the research philosophy, approach, research design, study location, and target population. It also encompasses the sampling techniques, sample size, instrumentation, data collection procedures, data quality measures, data processing and ethical considerations.

3.2 Research Philosophy

Research philosophy is an assumption regarding how to gather, use and bring meaning of obtained data during research (Creswell & Creswell, 2018). This study was anchored on pragmatism philosophy. The origin of pragmatism is Pierce's work (1878) later, improved by Dewey in 1929 and philosophers Burkhardt and James in 1975 (Kaushik & Walsh, 2019). This philosophy focuses on what works other than the actual nature and authenticity of situations (Morgan & David, 2014a). Moreover, pragmatism maintains that behavior is basically determined by past experiences and belief systems. Consequently, human thoughts intrinsically guide a course of action (Kaushik & Walsh, 2019).

This philosophy supposes that, existence continuously determine the actual becoming. This therefore, mean that, disruptions and eventualities shape individual action to change (Kaushik & Walsh, 2019). Concerning Heinonem and Strandvik (2022), the crucial foundation of is that, experience is the best teacher for influencing ones knowledge.

Another viewpoint that grounds pragmatism philosophy lies in the essence that, human beings are not complete systems and therefore, if anyone wishes to deeply study them,, they must invest in gathering information about then hence get some interpretations (Cordeiro & Kelly, 2019). This require an individual to be aware of the various tools, data analysis technologies and parameters helpful for making meaning from the obtained facts. For this reason therefore, the utilization of a pragmatism philosophy put the researcher at liberty to engage both qualitative and quantitative methods of securing facts from cancer respondents. Also, the obtained data at hand, the adopted philosophy suited the application of descriptive and inferential analysis. Another reason for adopting this philosophy was anchored on the ability to adopt existing theories in underpinning the research variables (Heinonem & Strandvik, 2022).

Through the guidance of pragmatism, the investigator was able to establish the existence of relationship between each independent variable with the PWB of CPs in Mery County. The research questions required an in-depth comprehension of real-life contexts and a comprehensive examination of multiple perspectives aligned with the study objectives. This was achieved upon adopting the stated research philosophy.

3.3 Research Approach

This study utilized a mixed-methods approach, comprising of qualitative and quantitative methods. The primary aim of this approach is to achieve a good comprehension of the research problem (Creswell & Creswell, 2018). The quantitative data was computed in numbers and assessed methodically using identified statistical techniques (Gupta & Gupta, 2022).

In this study, quantitative data was predominant while the qualitative data converged to clarify issues and expound some aspects on PI and PWB of CPs. Considering that the study's major goal was to assess the influence of psychosocial interventions in enhancing psychological well-being of cancer patients in oncology clinics, the quantitative data was crucial in soliciting opinions which were reflected in statements presented in Likert scale. This helped to determine the extent and weight of the opinions of cancer patients regarding each statement. It also enabled the researcher to compute mean, standard deviation and do a summation of the statements to determine the composite ratings of a given variable.

The qualitative data was also crucial in this study particularly in revealing deep insights from cancer patient care givers and clinicians. Qualitative data further helped gain deep understanding on psychosocial interventions. The collected data was exploratory in nature and helped to understand experience as close as possible to the study objectives (Creswell & Creswell, 2018). Qualitative information was specifically employed to get an understanding of the phenomena being assessed. The clinicians shed light on psychological well-being of cancer patients, considering that it is a roadmap to recovery. Moreover, the interplay of the study variables in this research was complex and therefore one approach would not have been sufficient in explaining the underlying issues. However, combination of both quantitative and qualitative approaches was ideal in explaining both the underlying situation and also the extent of influence (Walliman, 2018).

The combination of these two approaches was helpful to gain an understanding of fundamental motivations, reasons, and opinions of individuals, including the provision of insights into the problem. Moreover, mixed methods helped in developing ideas for answering research questions (Gupta & Gupta, 2022). Lastly, a mixed methods approach improved the research by ensuring that the shortcomings of one type of data was balanced by the strengths of the other, hence enhancing the quality of the study. The mixed-method approach has also been used in related previous studies, for example, Alexander (2019) who examined the importance of family counselling in managing cancer patients in India.

3.4 Research Design

This is a survey research that adopted a convergent mixed methods design. By applying this design the researcher simultaneously collected and analyzed both quantitative and qualitative data, allowing for a comprehensive examination of the research problem and then integrated the data to interpret the findings (Creswell & Creswell, 2018; George, 2022). The convergent design facilitated data triangulation through the use of questionnaires, interviews, and focus group discussions with various participants. By integrating the data during the interpretation phase, any contradictory or incongruent findings from different participants was explained with ease, thereby addressing the contextual gap of the study (Taber-Doughty & Jasper, 2012). Previous studies that have employed the convergent mixed methods design include Ehrbar et al. (2022), Njuguna et al. (2015), and Sherman and Okungu (2018). This provided confidence to adopt the same in the current study.

3.5 Location of the Study

The research took place at oncology clinics located in Meru County. Meru County was selected due to the identified issue of high cancer prevalence (MOH, 2018). The county comprises ten sub-counties: Buuri East, Buuri West, Imenti North, Imenti South, Imenti

Central, Igembe South, Igembe North, Igembe Central, Tigania East, and Tigania West. The estimated population of Meru County is 1,545,714, with 767,698 males and 777,698 females. Situated on the eastern slope of Mount Kenya, Meru County shares borders with Isiolo, Tharaka Nithi and Laikipia Counties. The total land area of Meru County is 7,006 km2, with 972.3 km2 designated as forested areas (Independent Electoral & Boundaries Commission, 2013). The county's principal economic activities include coffee farming, tea farming, dairy farming, horticulture, miraa, tourism, and quarrying. Apart from the high incidence of cancer cases in Meru County, the n of PI on the PWB of CPs has not been established. Therefore, it was necessary to examine the influence of PI on the PWB of cancer patients and the moderating effect of financial constraints in all oncology clinics in Meru County.

3.6 Target Population

The individual participants were cancer patients, caregivers, and clinicians from MeTRH, Maua Methodist hospital, Consolata Hospital Nkubu, Cottolengo Hospital Chaaria and Kiirua mission hospital oncology clinics Meru County. In each hospital, there are three categories of respondents; caregivers, patients and clinicians. Therefore, the study targeted 2580 cancer patients already on care, 2580 cancer patient caregivers and 53 clinicians Meru County 2023 (KEMRI, 2021) all of who were active at the time of field work in 2023 Meru County 2023 (KEMRI, 2021). Table 3.1 describes in summary of the population per oncology clinic.

Table 3. 1

Overview *of target population*

Oncology clinic	Target population per clinic			Total
	Cancer patients	Cancer patients care givers	Clinicians	
1. Meru Teaching and referral Hospital	1200	1200	20	2420
2. Maua Methodist Hospital	500	500	10	1010
3. Consolata Hospital Nkubu	400	400	10	810
4. Cottolego Hospital Chaaria	120	120	5	245
5. Kiirua Mission Hospital	360	360	8	728
Total	2580	2580	53	5213

The inclusion criteria were a cancer patient enrolled in care and undergoing cancer treatment, a cancer patient caregiver taking care of the cancer patient, and a clinician working in the oncology clinic. Patients, caregivers and clinicians were of either gender and aged above eighteen years. Those that were excluded from the study were cancer patients that were not enrolled in the oncology clinics, cancer patients enrolled but not under any cancer treatment and the caregivers not actively involved in taking care of the cancer patient. Additionally, individuals who were not employed as clinicians in the oncology clinic and those who expressed unwillingness to participate in the study were also excluded.

3.7 Sample size and Sampling Technique

This section outlines how sample size of the population were computed and the procedures for selecting participants.

3.7.1 Sample Size

A sample refers to a representative subset of the population under study, while sampling is the method used to select individuals from the larger research population in order to estimate the characteristics of the entire population (Singh et al., 2021). In this study, the unit of analysis was cancer patients, caregivers of cancer patients (CPs), and clinicians who work in oncology clinics. By gathering responses from these groups, the study aimed to examine the n of PI on the PWB of CPs in oncology clinics (OCs). As indicated below, Yamane's (1967) formula was used to compute the sample size for cancer patients. This was at ninety-five (95%) confidence level.

$$n = \frac{N}{1 + N(e)2}$$

The n is the sample size, N is the population size, and e is the precision level. To determine the sample size, Sample size (n) = 2580

$$1 + 2580(0.05)2$$

On applying the above formula, the sample size (n) is 335. The 335-sample size was drawn proportionately from the five oncological clinics. The computed sample size is demonstrated in Table 3.2.

Table 3. 2

Distribution of sample size per oncology clinic

Oncology clinic	Sample size per clinic Cancer patients	Care givers	Clinicians	Total
Meru Teaching and referral Hospital	156	8	2	166
Maua Methodist Hospital	65	8	1	74
Consolata Hospital Nkubu	52	8	1	61
Cottolengo Hospital Chaaria	16	8	1	25
Kiirua Mission Hospital	47	8	1	56
Total	335	40	6	381

Table 3.2 shows that as for the cancer patients' caregivers, the study considered 8 participants (one group) for a focused group discussion from each of the five oncology clinics. This translated to 40 caregivers. The study also considered six clinicians in Meru County oncology clinics to participate in interviews. The researcher added two Clinicians to ensure representativeness from each oncology clinics resulting to an overall sample size of 381.

3.7.2 Sampling Techniques

All the five oncology clinics were included in this study. Proportionate stratified sampling technique was utilized to get the number of cancer patients from the five oncology clinics given that the targeted hospitals were five in number. Following this, cancer patients were selected using a simple random sampling method from every oncology clinic. Identification numbers were assigned to each respondent from the different categories, and the sampling fraction was calculated. The sample was selected from the sampling frame using a random number generator, following the guidance provided by McCombes (2022).

The formula that was used to calculate the sampling fraction was: the sample size divided by the study population of cancer patients for each oncology clinics (McCombes, 2022). The formulae for simple random sampling technique is given as:

$$\text{Sampling fraction} = \frac{n}{N}$$

As for clinicians, the study purposively selected the clinicians who specifically deal with cancer patients. Two clinicians were considered from Meru level 6 hospital while one was purposively selected from each of the other oncology clinics. These six clinicians were picked conveniently depending on availability during the clinic day. The caregivers were selected using simple random sampling from each oncology clinics. A FGD ought to have between 6 and 12 participants per group (Bryman & Bell, 2011). This study therefore considered 8 members per group. There was one group at each of the five oncology clinics; hence the 5 FGD groups of caregivers. Caregivers in each oncology clinic were picked randomly during clinic days.

3.8 Instrumentation

This study utilized one set of questionnaires for the cancer patients, individual interview schedule for clinicians attending to CPs and focused group discussions for cancer patients care givers.

3.8.1 Questionnaire for Cancer Patients

The cancer patient’s questionnaire covered demographic characteristics, PWB, individual counselling, family counselling, support groups, and psycho-education. PWB was measured using Flourishing Scale (FS), and IC (individual counselling) was measured using ITPQ. A questionnaire was considered a good tool for this study since it protected the participant’s privacy. It also allowed the gathering of objective and subjective information from the large population sample. Moreover, questionnaires enabled the study to obtain detailed data which ensured better presentation of results (Kothari, 2004). The questionnaires were administered in the oncology clinics. A patient had a will to decide to complete it in the facility or take it home and bring it back completed in the next appointment.

The Flourishing Scale of PWB, developed by Diener et al. (2010), is a short 8-item summary tool that gives one psychological well-being score (Appendix 2-part B). The study also adopted and used Individual Therapy Process Questionnaire (ITPQ) by Hatcher and Shannon in 2005 to measure individual counselling (Mander et al., 2014) (Appendix 2-part C). To measure family counselling interventions, a 4 point Likert type scale was used (Appendix 2-part D). In order to measure support group interventions, the study utilized the Group Questionnaire (GQ) developed by Johnson and colleagues in 2005(Appendix 2-part E).

Psycho-education was measured using a 4 point Likert type scale (Appendix 2-part F), and the moderating effect of financial constraints on the association between individual counselling and PWB was measured using COST-FACIT version 1 adopted by Jonas et al. (2016) (Appendix 2-part G).

3.8.2 Interviews Schedules

This is a guiding tool for steering an orderly discussion between two individuals (Kruger et al., 2019). In this study, individual interviews were conducted with clinicians attending to cancer patients at the oncology clinics to obtain an insightful perspective of the research objectives. The interview was guided by research objectives (Appendix 111) that prompted in-depth probing for clarity.

According to Gupta (2009), interview schedules are preferred since they allow gathering of detailed information on an issue. The interview guide provided the possibility to get the information required to meet each specific objective of the study by inquiring on the influence of individual, family, support groups counselling and psycho education interventions in enhancing psychological well-being of cancer patients on care in oncology clinics in Meru County, Kenya and the interplay of the moderating effect of financial constraints between the two.

3.8.3 Focus Group Discussions Schedule

This is a qualitative method used to collect data that is commonly used in social sciences. It is a planned guided interview discussion led by a knowledgeable facilitator whose goal is to moderate the deliberations while noting down respondent’s perspective, experiences, and beliefs (Pathak at el., 2013). Focus group discussions were conducted with the support groups in every oncology clinic. In this study, eight caregivers of CPs participated in the study. FGDs schedules (Appendix IV) stimulated a conversation around the research variables. Those discussions allowed participants to share their thoughts and opinions on the influence of psychosocial interventions on PWB (Mugenda & Mugenda, 2008). It is appropriate for the caregivers of cancer patients since it promoted openness and enriched interactions. This provided additional information which was critical in determining the influence of psychosocial interventions on PWB of cancer patients.

3.9 Pre-Testing of Research Instruments

In line with Orodho (2014), performing a pre-test on a separate sample that shares similar characteristics with the actual study sample guarantees questionnaire effectiveness and minimizes or eliminates errors. For this reason, pre-testing was done at the oncology clinic in Chogoria Hospital in Tharaka Nithi County. The sample size for the pre-testing was obtained using the recommendation of Mugenda and Mugenda (2003) that, a range from 1% to 10%, of the population is sufficient. Table 3.3 shows the sample. This clinic was chosen for piloting of research instruments because it is in a different but neighboring county. Due to its location, the respondents in this oncology clinic are encountering almost similar experiences regarding the influence of psychosocial interventions on PWB. Pre-testing of the data tools was useful in eliminating researcher bias and ambiguity of the items. It also assisted the researcher in evaluating possible responses and scrutinizing the reliability of the data collected. The pre-test results enabled the researcher to determine and improve the validity and reliability of the research instruments.

Table 3. 3

Pre-test sampling distribution

Category	Percentage distribution	Sample distribution	No of respondents
Cancer patients	40%	30	12
Care givers of cancer patients	40%	30	12
Clinicians	20%	25	12
Total	100%	85	26

3.9.1 Validity of Research Instruments

This is explained as the extent to which the data analysis accurately represents the phenomena under investigation. It assesses what an instrument measures and how well it measures the intended constructs (Heale & Twycross, 2015). Validity helps determine the effectiveness of psychometric tests in fulfilling their intended purpose (Robson, 2011). When validity is high, precise and meaningful conclusions can be drawn.

The validity of research instruments was assessed through content, construct, and face validity. These approaches allowed the researcher to identify any issues with the research tools and make necessary revisions (Rachel et al., 2016). The content validity was achieved by picking important issues raised in chapter two, where aspects and elements of measure from previous studies were noted and considered when developing questions and specific statements. The researcher also consulted the indicators of each variable as presented in the conceptual framework. This helped to ensure all aspects and elements of measure were covered exhaustively to achieve content validity.

The construct validity was ensured by pre-testing the research instruments at Chogoria Hospital in Tharaka Nithi County. It was also checked by referring to previously used tools such as Diener et al. (2010), Hatcher and Shannon (2005), Mander et al. (2014), Johnson and colleagues (2005) and Jonas et al. (2016). The supervisors and subject experts were also consulted to advice whether the questions in the instruments actually measured what they were intended to assess.

The research instruments were designed well and had clear instructions on what the respondent is expected to do. This aspect enabled achieve the face validity. Moreover, each tool had sections clearly labeled, while the font type, size, alignment and line-spacing were consistent. For open-ended questions, the researcher provided adequate spaces for writing, while for closed ended questions, spaces for putting a tick were provided. Moreover, the researcher ensured that the language used in the tools was simple and precise. All these helped the tools to have face validity.

3.9.2 Reliability of Research Instruments

Reliability entails the consistency of the results generated by similar observation, questionnaire, or any other data collection technique on repeated outcomes (Orodho, 2014). Reliability measures a research instrument’s precision, trustworthiness, consistency and duplicability (Chakrabartty, 2013). This entails the extent to which the items in the test instruments measure comparable items (Engellant et al., 2016). Furthermore, reliability is meant to show the strength and relation between variables of a study (Sekaran and Bougie, (2016).

To assess reliability, the Cronbach's coefficient value was calculated using SPSS based on the data obtained from the pre-testing phase. In line with Field's recommendation (2009), a Cronbach's alpha value of 0.7 or higher was considered acceptable for the data collection instrument, indicating good reliability (Kothari & Garg, 2014).

3.10 Data Collection Procedures

The researcher obtained an introduction letter from KeMU to request clearance from the KeMU ethical clearance committee. Following that, authorization was sought from NACOSTI. The investigator also sought consent from the County Commissioner to collect data, the County Executive Committee member, and the Medical officers (MO) in charge of the targeted hospitals. Appropriate appointments with the respective oncology clinic administrators were thereafter arranged respectively.

On the agreed days, the researcher visited the hospitals to gather information from cancer patients, caregivers and clinicians. Permission from the oncology clinics and respondents was sought before commencing the data collection. Three well-trained research assistants supported the data collection exercise. Specific areas of training covered were on how to answer respondents' queries while administering the questionnaire.

The investigator introduced him/herself and explained the study's purpose and objectives. Before data collection, the cancer patients, caregivers and the clinicians were sampled. Also, the study's objective was explained to the respondents and those willing to participate were asked to consent for their involvement in the data collection activity. Volunteers were given both the questionnaire and a pen.

3.10.1 Procedures for Administering Questionnaires

The investigator in company of research assistants administered the questionnaires through face-to-face method. Flexibility was allowed where, filled questionnaires were picked immediately or later upon agreeing with a respondent. Given that the questionnaires for CPs were long, the CPs were given sufficient time to complete the questionnaire before returning. Where need be, clarification of the questions was done, and instructions were explained, noting any questions, comments, or remarks asked by the respondent about the questionnaire. The patients who asked for help in ticking the answers were provided with assistance considering that some of them had difficulties in writing. The patients who required explanation of question in Kiswahili language were also assisted accordingly. The respondents were thanked after completing the questionnaire.

3.10.2 Procedures for Conducting the Interview

For the interview schedule, the researcher personally conducted the one-on-one interview with the oncology clinicians. The researcher explained to the interviewee what was expected of them and the purpose of the data. The issue of confidentiality and consent was explained and those who accepted to be involved in the study, provided their signature on the consent form. In order to ensure clarity of the study instruments, the researcher conducted a detailed question-by-question interviewing and provide explanations where necessary. The researcher made an audio recording and took down some notes of the responses after seeking the clinicians’ consent.

3.10.3 Procedures for Conducting the Focus Group Discussions

Qualitative data from cancer caregivers was collected using a guide specifically designed for focus group discussions. The researcher sought consent from the participants for audio recording of the discussions and taking short notes just like for the interviews. The focus group discussions were carried out during support group meetings in the five oncology clinics. The investigator coordinated the support group by approaching and requesting them to afford thirty minutes to meet in a nearby hotel for a focused group discussion. The investigator met the bill for tea and snacks. Further respondents were provided with bus fare. The researcher moderated the focus group discussions while the research assistants helped in audio recording and notes taking (Burns & Grove, 2011).

3.11 Data Analysis Procedures

The analysis procedures for each type of data was outlined in the following subsections.

3.11.1 Analysis of Quantitative Data

Collected data from the questionnaires was inspected for completeness, cleaned, coded and then entered into SPSS for analysis. Quantitative data was analyzed in mathematical approaches focusing on statistical and numeric datasets (Bhandari, 2023) where, descriptive and inferential statistics were computed. The descriptive statistics computed were; mean, percentage, and standard deviation. For inferential statistics, correlation and regression analysis were used to assess the relationships that exist between the study independent and dependent variables. The study also tested whether financial constraints moderated the relationship between PI and PWB of CPs in oncology clinics in Meru County. In that connection, moderated multiple regression model that was used in this study is shown in the following three equations:

$$Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + e, \ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(i)}$$

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + B_4X_4 + \beta_zZ_j + \varepsilon\ldots \ldots\ldots\ldots\ldots\ldots \text{(ii)}$$

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + B_4X_4 + \beta_jZ_j + \beta_{ij}X_iZ_j + \varepsilon\ldots\ldots\ldots\ldots \text{(iii)}$$

where:

Y= dependent variable

X_1 = Individual

counselling X_2=
Family
counselling
X_3 =
Support
groups
X_4=
Psycho
education
β = Coefficients of the variables determined
by the model Zj = The moderating variable,
the financial constraints.

Bj = The coefficient of the moderator as a predictor

XiZj = The interaction term between variable Xi (i = 1, 2, 3, 4) and

moderating variable Bij = The coefficient of the interaction term.

e_i = error.

In order to be certain on the type of regression analysis, violation or non-violations were checked through diagnostic tests such as normality, linearity, heteroscedasticity, autocorrelation and multicollinearity tests. Quantitative findings were presented using tables, charts and graphs.

3.11.2 Analysis of Qualitative Data

This was applied to analyze qualitative data from the open-ended questions, interviews and focused group discussions. The data gathered was analyzed by scrutinizing the information with a view to identify common message, phrase or words across several responses of a given question. The researcher further studied the emergent themes deeply with reference to study variables in order to establish patterns in the themes. The noted patterns informed the grouping of related themes together to form categories from the emergent themes. Inductive and deductive methods of reasoning were adopted when scrutinizing the responses in order to categorize and classify the information. Qualitative data was presented in using derived themes, excerpts and verbatim quotes.

3.12 Measurement of Variables

The indicators of variable of this study were measured using ordinal and interval scale as shown in Table 3.4.

Table 3. 4

Measurement of variables

Variables	Objective	Indicator	Measurement	Data analysis method
Individual Counselling	To examine the influence of individual counselling in enhancing psychological well-being of cancer patients attending Oncology clinics in Meru county, Kenya.	• Resource activation • Problem actuation • Mastery • Clarification of meaning • Emotional bond • Goals and tasks • Therapists intervention • Patient fear	Ordinal / interval	Percentages, mean, standard deviation, and correlation analysis

Family Counselling	To assess the influence of family counselling in enhancing psychological well-being of cancer patients attending Oncology clinics in Meru county, Kenya.	• Family communication • Mutual support • Information disclosure • Treatment adherence • Hospitalization • Self -Care •	Ordinal / interval	Percentages, mean, standard deviation, and correlation analysis
Support Group	To determine the influence of support groups in enhancing psychological well-being on cancer patients attending Oncology clinics in Meru county, Kenya.	• Working relationship • Experience sharing • Stigma reduction •	Ordinal / interval	Percentages, mean, standard deviation, and correlation analysis
Psycho education	To assess the influence of psycho education in enhancing psychological well-being of cancer Oncology clinics in Meru county, Kenya	• Nature of the illness • Satisfaction and benefit of the information given Information regarding Cancer therapy	Ordinal / interval	Percentages, mean, standard deviation, and correlation analysis
Financial constraint	To establish the moderating effect on the relationship between psychosocial interventions and psychological well-being of cancer patients attending Oncology clinics in Meru County, Kenya.	• Employment status • Treatment expenditures • Non treatment expenditures • Medical insurance	Ordinal / interval	Percentages, mean, standard deviation, correlation and regression analysis

3.13 Ethical Considerations

Cancer patients are one among a very defenseless group (Grassi et al., 2017) hence might be experiencing an extreme measure of agony as well as other physical stressors. This research therefore, abound by required ethical principles. The researcher requested authorization to carry out the research from appropriate authorities. These included: a recommendation letter from Kenya Methodist University, a clearance letter from the Kenya Methodist university ethical clearance committee, a research permit from NACOSTI, written permissions from the County Commissioner, the County Executive Committee member of health, and the targeted hospitals.

Thereafter, permission to do data collection among the oncology clinics respondents was sought from the hospital management and individual participants. The cancer patients received detailed information and a clear explanation regarding the purpose of the study. The potential benefits and risks associated with participation were communicated to them using language that is easy for them to understand. Prior to their involvement in the study, the respondents were requested to consent, ensuring that they fully understand the nature of the study and willingly agree to participate voluntarily and maintain the confidentiality of their information.

All patients were free to end their participation in the study without any consequences. The study concealed identity of each respondent. For questionnaires, the cancer patients were asked not to write their names anywhere in the tool, while, participants for interview and focused group discussions, were allocated special codes. The special codes were used during data analysis and reporting to conceal their identity.

All data from the field was managed with strict confidentiality and privacy and reserved in a password–protected computer database. This ensured confidentiality and privacy of the data. The researcher further ensured that in-text citations and references were appropriately provided to credit the sources of information. Information gathered was analyzed and presented ethically without alteration to the views.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This section introduces the chapter which outlines the findings about the influence of PI on enhancing the mental well-being of cancer patients undergoing treatment at oncology clinics in Meru County, Kenya. Data were analysed and results organized based on the key variables of the study. The main variables of this study were: PWB of cancer patients (dependent variable), individual counselling, family counselling, support groups, psycho-education, the independent variables while financial challenges, was the moderating variable. The chapter presents and discusses the results on response rates, followed by an assessment of the reliability of collected data, demographic details of participants and the outcomes of diagnostic tests.

4.2 Response Rate

As per the study sample, 335 questionnaires were distributed to cancer patients attending oncology clinics at five health facilities in Meru County. Additionally, five focused group discussion was conducted with the caregivers and while interview was with one clinician at each of the five participating oncology clinics. The response rates for each category of respondents are presented in Table 4.1.

Table 4. 1

Study's Response Rate

Oncology clinic	Sample size per clinic				Response per clinic f (%)			
	Cancer patients	Caregivers	Clinicians	Total	Cancer patients	Care givers	Clinicians	Total
Meru Teaching and referral Hospital	156	8	2	166	123(79%)	7(88%)	1(50%)	131(79%)
Maua Methodist Hospital	65	8	1	74	59(91%)	6(75%)	1(100%)	66(89%)
Consolata Hospital Nkubu	52	8	1	61	44(85%)	8(100%)	1(100%)	53(87%)
Cottolengo Hospital Chaaria	16	8	1	25	13(81%)	7(88%)	1(100%)	21(84%)
Kiirua Mission Hospital	47	8	1	56	38(81%)	7(88%)	1(100%)	46(82%)
Total	335	40	6	381	277(83%)	35(88%)	5(83%)	317(83%)

Table 4.1 shows that the response rate was 277(83%), while Care givers was 35(88%) and 5(83%) for clinicians, resulting to an overall response rate of 83%. The overall response rates are relatively good, with a majority of respondents participating in the survey.

Caregivers consistently show high response rates across all clinics, suggesting a strong engagement from this group. Overall, the results suggest positive engagement of respondents, especially caregivers. The adequacy of the obtained response rate is supported by the recommendation of Creswell (2014) who pointed out that, a response of 80% onwards is excellent. Similarly, a reliable response rate of 94% was obtained by Muita (2018) in Kiambu County from the targeted caregivers.

4.3 Reliability of the Data

The data collected for each variable was assed to ascertain its fitness and dependability before the same was used in the analysis. The Cronbach's Alpha coefficients were calculated for, individual counselling, family counselling, support groups, psycho-education, financial challenges and PWB of CPs. The Cronbach's alpha values for each of the aforementioned variables is presented in Table 4.2.

Table 4. 2

Reliability of data based on the main variables

Constructs	**Cronbach's Alpha**
Psychological well-being of cancer patients (Y)	0.853
Individual counselling (X1)	0.960
Family counselling (X2)	0.961
Support groups (X3)	0.911
Psycho-education (X4)	0.908
Financial constraints (X5)	0.775

Table 4.3 demonstrates that the coefficients were above 0.7 for each objective. This sheds light on the dependability of each construct that was considered in the research. This conclusion relied on the advice given out by Mohajan's 2017 that a threshold alpha value of 0.70 indicates reliability.

4.4 Demographic Profile of Respondents

Understanding the demographic information is essential in informing tailored interventions and support services to meet the diverse needs of cancer patients. It also allows healthcare providers and psychologists to move beyond a one-size-fits-all approach and deliver more personalized, patient-centered care.

4.4.1 Demographic Characteristics of Cancer Patients

The demographic characteristics analyzed in this study included gender, age bracket of cancer patients, marital status, highest level of education qualification and occupational status. This is illustrated in Table 4.3.

Table 4. 3

Demographic characteristics of cancer patients

Gender	Frequency	Percent
Male	96	34.7
Female	181	65.3
Total	277	100.0
Age bracket		
18-20	33	11.9
21-30	49	17.7
31-40	34	12.3
41-50	15	5.4
51-60	44	15.9
61- and above	102	36.8
Total	277	100.0
Marital status		
Single	42	15.2
Married	141	50.9
Separated	51	18.4
Divorced	43	15.5
Total	277	100.0
Highest level of education qualification		
Did not finish class eight	68	24.5
Primary school certificate	95	34.3
Secondary school certificate	74	26.7
College certificate	5	1.8
College diploma	3	1.1
University undergraduate degree	28	10.1
Master’s degree	4	1.4
Total	277	100.0
Occupational status		
Unemployed	112	40.4
Casual employment	52	18.8
Permanent employment	36	13.0
Self-employment	77	27.8
Total	277	100.0

Table 4.3 shows that, majority of respondents were female at 181(65.3%), while 96(34.7%). were male. This means that female were more than male patients attending oncology clinics in Meru County. This could be due to the higher prevalence of certain cancers in women or a greater willingness among female patients to engage in providing

feedback (Kung’u, 2022). Consistently, Kung’u (2022) reported a similar pattern on the dominance of female cancer patients than male. Kung’u informed that, females were more willing to attend treatment as a result of the strong religious support they received in African Inland Church, Kijabe Hospital. The results imply a need for gender-specific considerations in the context of oncology care. This may be in terms of healthcare strategies, communication approaches, and support services to cater for cancer patient’s needs.

Thirty six point eight, 36.8% of respondent’s falls into the ‘61 and above age bracket’ which constituted 36.8%, followed by those aged between 21-30 (17.7%) and 51-60 (15.9%). The prevalence of older respondents may indicate a higher incidence of cancer in the elderly population. This demographic trend has implications for healthcare planning; emphasizing the need for geriatric oncology services, considering comorbidities, and support for caregivers, and addressing the unique challenges faced by elderly cancer patients as noted by Cheboi et al. (2023).

The results indicate that 41(50.9%) of cancer patients were married. Marital status seems to be a significant factor in the cancer management. This is because, married individuals may benefit from spousal support; however, it's crucial to recognize the needs of single, separated, or divorced individuals constituting 49.1%, who may be relying on alternative support networks during cancer treatment. The presented results are consistent with the findings made by Kung’u (2018) who established that, the cancer patients attending oncology clinics in Kiambu County were majorly married individuals. Apart from the married being the major, single, widowed and separated cancer patient were also there.

This has implication in finding a comprehensive approach for supporting cancer patients noting the variations in martial statuses.

Table 4.3 further shows that 95(34.4%) had completed primary school certificates while 74(26.7%) had completed form four. Another majority, approximately a quarter 68(24.5%) did not finish class eight. The cancer patients with a post-secondary qualifications were 14.4%. This show low level of education level of cancer patients attending oncology clinics in Meru County. Notably, the lower educational attainment may influence health literacy and the ability to navigate complex healthcare systems. The presented results do not compare with what was observed by Ntarangwi (2021) at Kenyatta hospital. Ntarangwi's results reported that, only 6.6 patients had not finished class eight and 16% had education tertiary qualifications. Despite the noted differences, both educated and uneducated are ailing from cancer disease. This finding imply the need for oncology clinics to adopt clear communication strategies that accommodate varying education levels to ensure all patients comprehend their treatment plans and actively participate in their healthcare decisions.

The findings further show that about 112(40.4%) of respondents were unemployed, 52(18.8%) had casual employment, 36(13%) had permanent jobs while 77(27.8%) were self-employed. This communicates that majority of cancer patients were financially unstable to adequately afford cancer treatment. According to Gitonga et al. (2020) unemployment and unstable income affects access to healthcare and adherence to treatment plans. This finding imply a need for oncology clinics to collaborate with social services and other stakeholders in offering financial support or assistance to individuals seeking cancer treatment.

The above findings show that recognizing the intersectionality of demographic characteristics is crucial in determining access to cancer treatment. For instance, an unemployed elderly individual may face distinct challenges as compared to a younger employed patient according to Mukherjee et al. (2018). The findings emphasize the need for tailored support programs that consider the specific challenges associated with age, marital status, educational background, and employment status of CPs. The results of Mukherjee et al. (2018) in India assessed the influence of demographic characteristics on quality of life and access to healthcare support among cancer patient. The researchers found out that, education level, residential status, income and age were critical factors to consider so as to satisfy psychosocial needs of cancer patients. Therefore, identifying and mitigating disparities related to education, employment, and socioeconomic status would undoubtedly ensure that all individuals, regardless of their background, have equitable access to cancer care and support services.

The research also established the years one had lived with cancer since it was diagnosed. The understanding of this information is valuable so that healthcare professionals make plans to improve the overall quality of care among all age group patients. Table 4.4 shows these results.

Table 4. 4

Length of time a patient had lived with cancer since it was diagnosed

Length	Frequency	Percent
Less than a year	75	27.1
Between 1- 2 years	113	40.8
Between 3 - 5 years	60	21.7
Between 6 -10 years	5	1.8
Between 11-15 years	9	3.2
Between 16 - 20 years	15	5.4
Total	277	100.0

Table 4.4 shows that 113(40.8%) indicated that cancer patient had lived with the disease between 1 and 2 years since cancer was diagnosed. This represents individuals in active treatment or those transitioning to post-treatment survivorship, hence implying need for ongoing support, monitoring for potential treatment-related issues and education on long-term survivorship care. A proportion of 60(27.1%) respondents had been living with cancer for less than a year. The patients are likely in the early stages of diagnosis, undergoing initial treatments, and may be adjusting to the emotional and physical challenges of living with cancer. The implications include the need for strong emotional support, education about the treatment process and assistance in managing immediate concerns. These results support recommendation opined by Lingens et al. (2021). that, early psychosocial interventions such as individual counseling enable cancer patients to improves their self- esteem, understand methods of treatment, secure emotional support, handle challenging situations, cope with new life and make healthy decisions.

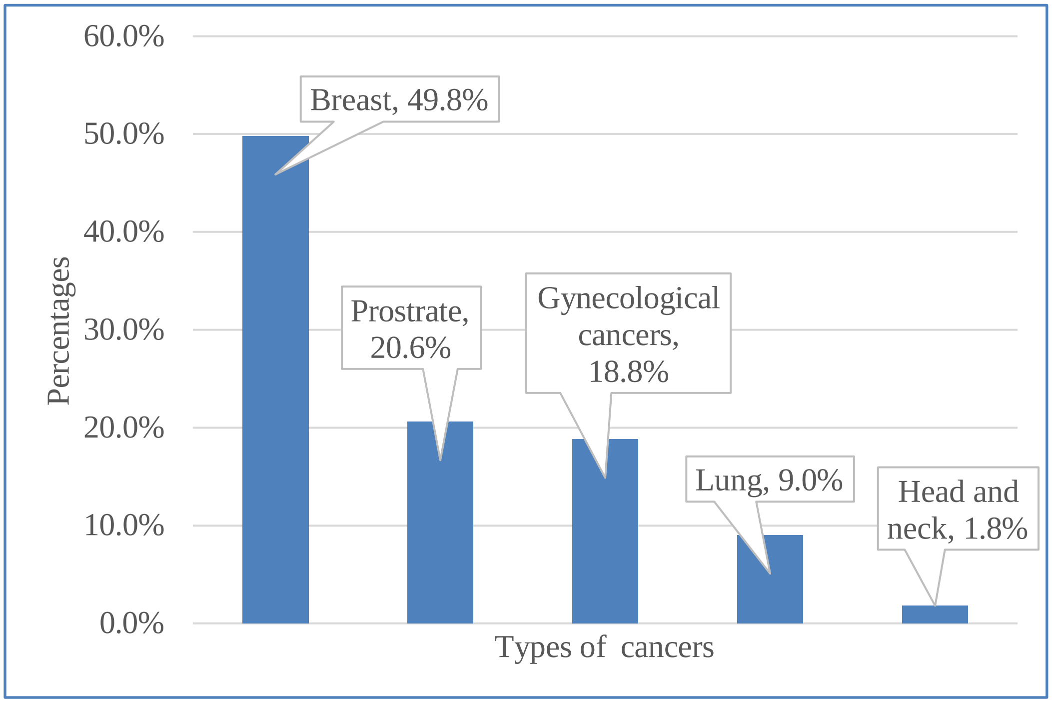
About a fifth 60(21.7%) had lived with cancer for 3 to 5 years, implying a need for survivorship care plans, addressing potential long-term effects of treatment, and support for reintegration into normal life. A small percentage (1.8%) and (3.2%) had lived with cancer for 6 to 10 years and 11 - 15 years respectively. The two groups of cancer patients represents long-term survivors who may face unique challenges such as late effects of treatment, managing chronic conditions, and psychological aspects of long-term survivorship. This findings collaborates Kung'u (2022) that, cancer survivors diagnosed of the disease between 2011 and 2016 hence managed the pandemic for more than seven years. Such survivors require close attention and support to address compounding effects which come with therapy and financial constraints. This implies the need for cancer management strategies that focus on maintaining quality of life, late effects and survivorship plans.

The above findings highlight the need for tailored support programs as patient's progress through different stages of survivorship. Notably, early-stage patients may need immediate emotional support and education; while, long-term survivors may benefit from ongoing monitoring and specific survivorship-focused psychosocial interventions (Seiler & Jenewein, 2019). Moreover, the information also empowers patients to actively participate in their care and make informed decisions.

The study was also interested in understanding the distribution of cancer types among cancer patients attending oncology clinics in Meru County. The findings on types of cancer were important particularly in informing the psychosocial programs needed in addressing the specific needs cancer patients. Information on Type of cancer is shown in Figure 4.1.

Figure 4. 1

Type of cancer prevalent at oncology clinics in Meru County



Almost half of the respondents (49.8%) had breast cancer. This shows that breast cancer is the most prevalent cancer type in this population. The findings align with the observations put across by Mutiso et al. (2023) that, in Meru and Tharaka Nithi Counties, the most prevalent cancer disease for women is breast while for men, prostate cancer. Noting its dominance, the findings imply a need for specialized treatment options, and support services addressing the physical and emotional aspects of breast cancer.

Prostate cancer is the second most common cancer type (20.6%) representing a fifth of cancer cases at oncology clinics in Meru County. The results agree with the submission of Gitonga (2021) which established that, in Meru County Teaching and Referral Hospital, prostate cancer is the second dominant among the patients visiting for diagnosis and treatment. This indicates a need for targeted prostate cancer screening programs, specialized treatment approaches, and support services addressing the unique challenges faced by individuals with prostate cancer, including potential influence on quality of life and psychological well-being.

Gynecological cancers collectively comprised of 18.8% of the cases, while lung cancer had 9% of the cases. This finding on lung cancer suggests a need for lung cancer awareness campaigns, smoking cessation programs, and comprehensive lung cancer care services, considering the often advanced stage at which lung cancer is diagnosed. The head and neck cancers represented a smaller percentage of cases (1.8%). While head and neck cancers are less common, they require specialized care due to their n on crucial functions such as swallowing and speech. Notably, the prevalence of certain cancer types, such as breast and prostate cancers, emphasizes the importance of screening and early detection initiatives. The results compare with those of Mutiso et al. (2023) which opined that in Meru and Tharaka Nithi Counties, the prevalence of cancer diseases starting from the highest is breast, prostate, cervical and esophageal cancers and are diagnosed very late after the diseases have spread to secondary organs in the body. Noting the diagnosis of different kinds of cancers in the county implicates on the need for early screening and tailor made support interventions to lower the morbidity and comorbidity rates.

The foregoing findings on cancer types are significant in informing public awareness campaigns. Promoting awareness about the signs, symptoms, and risk factors associated with prevalent cancers can contribute to early detection and improved outcomes. They also inform the development of targeted interventions, enhancing psychosocial care services, and addressing the unique needs of individuals facing different types of cancer. The findings have implications for healthcare planning, resource allocation, and the design of support services to enhance the overall quality of cancer care and psychological well-being. The stated observations concur with those of Willy and Obuya (2022) that, the burden of cancer experienced in Meru and Tharaka Nithi counties require investment in enriching the public with knowledge to improve their awareness on cancer disease, the types, signs and symptoms, methods of screening, risk factors of the illness and also treatment regimens. The findings have implications for healthcare planning, resource allocation, and design of support services to enhance the overall quality of cancer care and psychological well-being.

Different types of cancer requires particular modality of management. In that connection, participants were asked to indicate the kind of cancer management one had undergone at oncology clinics. Their answers were summarized and presented in Table 4.5.

Table 4. 5

Kind of cancer management one had undergone

Kind of cancer management one had undergone	Frequency	Percent
Chemotherapy	141	50.9
Radiotherapy	8	2.9
Both radiotherapy and chemotherapy	70	25.3
Psychotherapy	58	20.9
Total	277	100

From the findings, **c**hemotherapy was the most prevalent cancer management modality, with over half of the respondents (50.9%) having undergone this treatment. The high percentage of individuals receiving chemotherapy underscores its central role in cancer treatment. In this connection, Debela et al. (2021) also classified chemotherapy and surgery as the most common cancer management mechanisms utilized in the developed nations which thereafter a patient undergoes more advanced treatment options depending on the need and tissue/organ affected. Similarly, Wafula (2017) noticed that, among the patients who participated in the study in Nairobi County, majority (34.8%) had received chemotherapy treatment and cancer management mechanism. Implications include the need for comprehensive chemotherapy support services, managing potential side effects, and ensuring patient education regarding treatment expectations.

A small percentage of individuals (2.9%) had undergone radiotherapy. Radiotherapy remains a crucial treatment modality, often used in specific cancer types or stages (Mutebi et al., 2020). A substantial percentage of individuals (25.3%) had undergone a combination of both radiotherapy and chemotherapy. This group represents individuals with complex treatment plans. Implications include the need for coordinated care, monitoring potential interactions between treatments, and addressing the cumulative effects of both modalities on patients' physical and emotional well-being. About 58(20.9%) proportion of respondents, a fifth, (20.9%) had undergone psychotherapy. Psychotherapy is a crucial component of cancer care, addressing the emotional and psychological aspects of the disease (Pawlak & Kacprzyk-Straszak, 2020). Implications include the recognition of the importance of mental health support throughout the cancer journey and the integration of psychotherapeutic interventions into comprehensive cancer care programs.

The diversity in cancer management modalities reflected above necessitates comprehensive support services that go beyond medical treatments. These should include psychological support, symptom management and education about potential treatment-related side effects. The results underscore the need to recognize and address the emotional and psychological well-being of cancer patients, which, is crucial for their overall quality of life.

4.4.4 Demographic Characteristics of Caregivers

The characteristics of caregivers looked at were; gender, experience, and highest level of education. The results on gender indicate that most caregivers for cancer patients 26(74.2%) were female, while male were 9(25.8%). When asked to state their years of experience in caregiving service, most 14(39%) indicated 2 years. The next majority 8(24%) had less than one year experience, followed by those who had the experience of 3 years, 7(19%), and 3(9%) had 5 years, while, another 3(9%) had three years and above. Regarding level of education of caregivers, 27(78%) had Diploma, while the rest 8(22%) had a Bachelor degree.

The predominance of female caregivers, comprising 74.2%, indicates a potential gender-related pattern in caregiving roles for cancer patients. This was also the case in China as reported by Geng et al. (2018) that, female caregivers were three quarters the male counter-parts in the oncology clinics. Recognizing this gender distribution is vital for tailoring support programs that address the unique needs and challenges faced by female caregivers. Additionally, the varied years of caregiving experience, with a substantial percentage having two years of experience, underscore the importance of offering targeted interventions for both novice and more seasoned caregivers. Considering the educational background, where the majority hold a Diploma, suggests the need for accessible and comprehensive educational materials and resources that align with the caregivers' educational levels. Notably, Gitonga (2019) demographic findings for the cancer patient's caregivers noted that, majority of them had worked between one and two years in the oncology clinic in Kenyatta National Hospital. The persistence of caregivers demographic characteristics implicate the need for tailor made support for them to effectively serve cancer patients.

4.4.5 Demographic Characteristics of Clinicians

Clinicians' gender, experience and highest level of education were investigated. The results indicate that one was female while the other four were male. This results show few female clinicians as compared to male gender. The working experience of the five clinicians were; Seven years, Eight years, Four years, and 2 had two years. Regarding education levels, 3 clinicians had higher Diploma, one had bachelor and one had a master's degree.

The notable gender disparity, with one female clinician compared to four males, suggests a gender imbalance in the clinical workforce, although this had no quantifiable impact on psychosocial support rendered by clinicians. Data on clinicians' experience reveals a range of seven to two years, emphasizing the need to consider varying levels of expertise when designing health care services for cancer patients. The experience of these clinicians was however regarded sufficient in handling questions related to psychosocial interventions and PWB of CPs. Additionally, the varied education levels, ranging from higher diplomas to master's degrees, indicates that clinicians were duly qualified in handling cancer patients at oncology clinics in Meru County. However, this does not rule out need for continuous professional development and education on their effectiveness in supporting cancer patients. Differing opinions were reported in the findings of Gikonyo (2022) who noted that, at Kenyatta National Hospital, majority of healthcare workers in charge of the oncology clinics were female. However, some level of agreement on the education qualifications and the length of service was noted (Gikonyo, 2022). For effective service, the length of service and educational qualification need to be improved through in-service professional development and training and career development.

4.5 Results on Diagnostic Tests of the Study Data

The study assessed assumptions regarding key variables, including individual counselling, family counselling, support groups, psycho-education, financial constraints, and the PWB of CPs, to ensure compliance with conditions for carrying out correlation and regression statistical analyses. The diagnostic tests were also critical in determining the kinds of statistical analysis [parametric or non-parametric] that were applicable in this study. The tested assumptions encompassed normality, which was evaluated through use of P-values, histograms, and box plots, followed by the confirmation of the linearity condition between dependent and independent variables. Auto-correlation and heteroscedasticity assumptions were then examined, with the final assessment focusing on multicollinearity. Given that the study's constructs were latent variables represented by multiple indicators, initial transformations were applied to treat various indicators as a single variable. In the transformed data, X1 represents individual counselling, X2 denotes family counselling, X3 indicates support groups, X4 represents psycho-education, M represents financial constraints, and Y serves as the dependent variable, standing for the PWB of CPs at oncology clinics in Meru County.

4.5.1 The Normality Test

As indicated below, Table 4.6 displays the statistical values for both the Kolmogorov-Smirnov and Shapiro-Wilk tests for each variable.

Table 4. 6

Normality test results

	Kolmogorov-Smirnov[a]			**Shapiro-Wilk**		
	Statistic	**df**	**Sig.**	**Statistic**	**df**	**Sig.**
X1	.059	277	.020	.991	277	.100
X2	.045	277	.200*	.994	277	.288
X3	.052	277	.072	.995	277	.549
X4	.052	277	.067	.993	277	.257
M	.051	277	.078	.993	277	.218
Y	.027	277	.200*	.995	277	.479

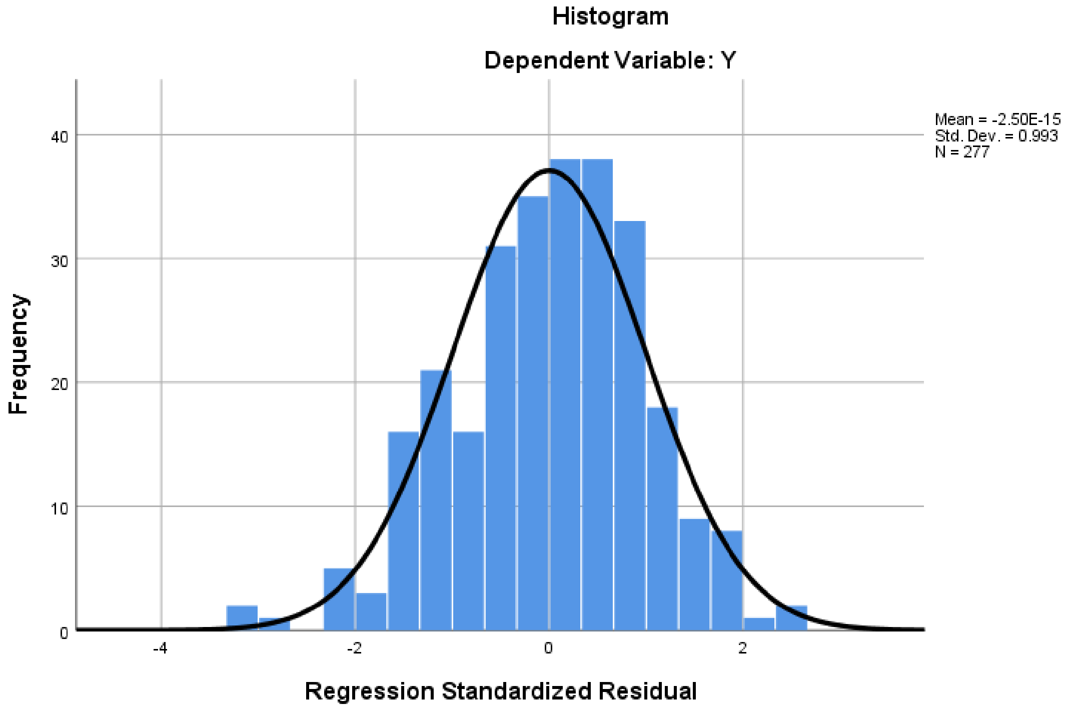
*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

The Shapiro-Wilk P-values for each variable are reported as follows: individual counselling (X1) = 0.100, family counselling (X2) = 0.288, support groups (X3) = 0.549, psycho-education (X4) = 0.257, financial constraints (M) = 0.218, and psychological well- being of cancer patients (Y) = 0.479. All these P-values are considered insignificant, suggesting that the data does not significantly deviate from normality. This conformity with normality conditions is crucial for statistical analysis assuming normal distribution. The findings indicate that the data was sourced from a normally distributed target population. According to Waithima's 2020 study, the data adheres to the normality condition if P-value is greater than 0.05 level of significance. Additionally, confirmation of skewness was obtained by inspecting histograms related to the psychological well-being variable (Y) in Figures 4.2 and 4.3.

Figure 4. 2

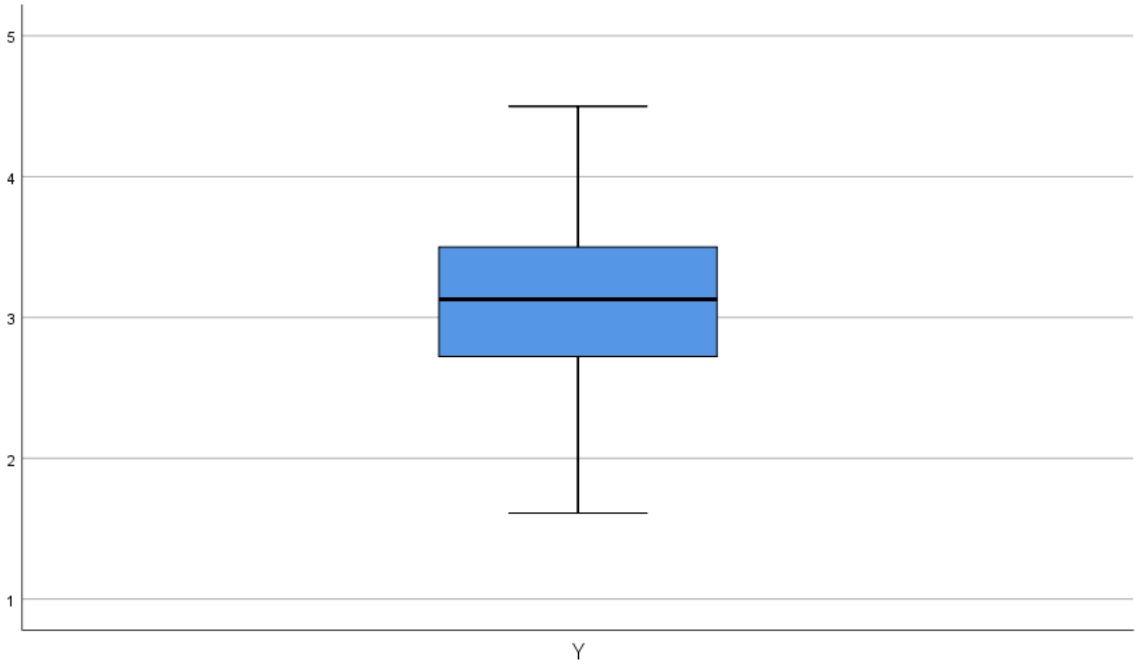
Histograms on the psychological well-being of cancer patients



Based on the information presented in Figure 4.2 the data demonstrates a reasonably even distribution, as evidenced by minimal skewness and a flattened curve. Consequently, the status of normal distribution is observed. A box plot was also generated with a view to check full compliance to the normality assumption condition. The results are shown in Figure 4.3.

Figure 4. 3

Box plot on the psychological well-being of cancer patients



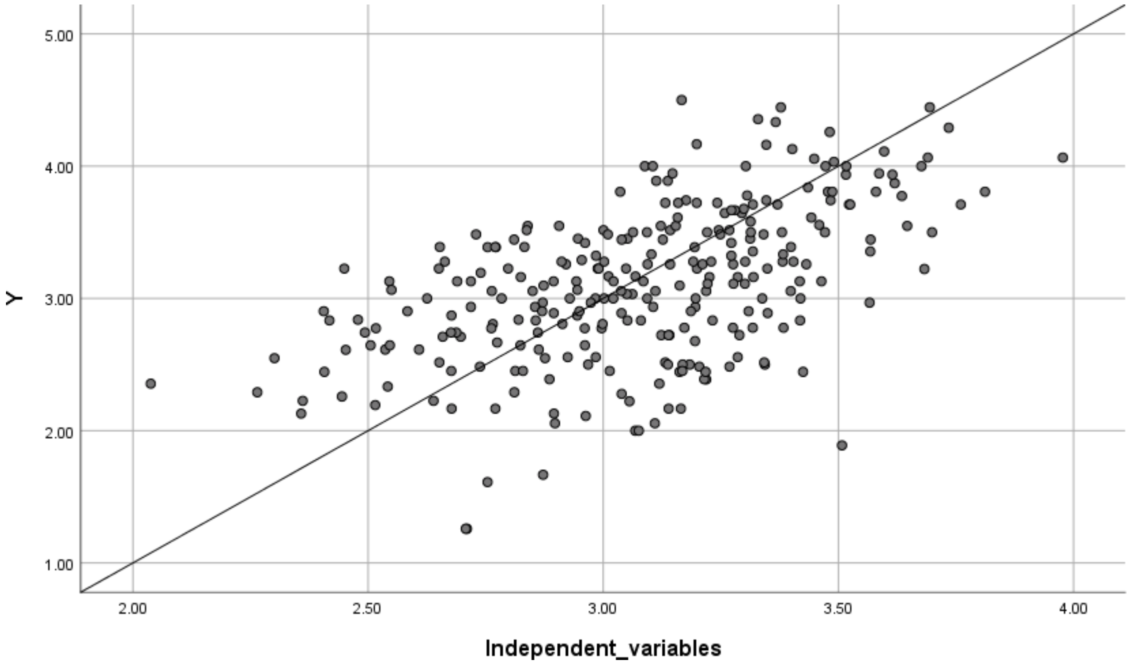
The whickers in the box plot presented in Figure 4.3 are showing none-skewedness in the data; hence, data is normally distributed. The subsection that follows displays the results of the linearity test.

4.5.2 The Linearity Test

The linearity of the data between PI and PWB of cancer patients at oncology clinics in Meru County was checked by generating a scatter plot and the same is presented in Figure 4.4.

Figure 4. 4

Scatter plots showing the linearity of psychosocial interventions



The convergence of data points in Figures 4.4 is clearly observed to being along the line of best fit. The findings show that the deviation of data points from linearity is insignificant; and therefore, the study observes that is there linearity between psychosocial interventions and PWB of CPs at oncology clinics in Meru County.

The converging of data points along the best-fit line in Figure 4.4 is distinctly noticeable. The results indicate that the departure of data points from linearity is negligible. Consequently, the study concludes that there is a linear relationship between PI and the PWB of CPs at oncology clinics in Meru County.

4.5.3 The Autocorrelation Test

To assess the correlation of indicators within independent variables (auto-correlation condition), SPSS was employed to compute the Durbin-Watson statistics. The outcomes are detailed in Table 4.7.

Table 4. 7

The Autocorrelation test on psychosocial interventions

Variables	Durbin-Watson
X1	1.873
X2	1.878
X3	2.094
X4	1.918

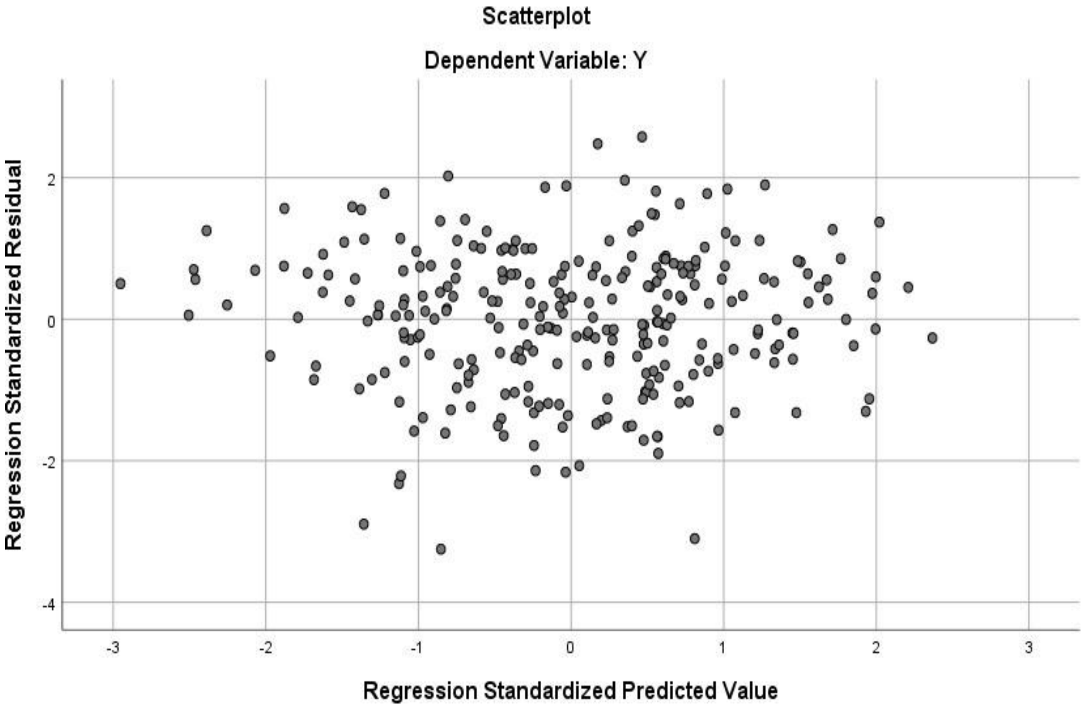
The assessment of autocorrelation status indicates that the Durbin-Watson values, derived from cancer patients' data, hover around two. Typically, a Durbin-Watson value is anticipated to be close to two and not less than 0.8 to express non violation of autocorrelation condition (Taylor, 2023). These results suggest that the autocorrelation condition has not been breached. The next test was on heteroscedasticity.

4.5.4 The Heteroscedasticity Test

To examine the potential heteroscedasticity issue in the dataset, a scatter plot was generated using standardized predicted residuals and standardized residuals. The spread of data points on the graph facilitated the identification of heteroscedasticity, and the outcomes are shown in Figures 4.5.

Figure 4. 5

Heteroscedasticity test results



The scatter plots in Figure 4.6 reveal widely dispersed points, indicating a lack of a discernible pattern on the rectangular graph. The scatter points in both figures do not exhibit any clear structure. As a result, there is no evidence of heteroscedasticity violation in the data.

4.5.5 The Multicollinearity Test

This research focused on conducting a regression analysis, wherein all independent variables were regressed against the dependent variable to evaluate the overall goal of the study. In multivariate regression analysis, meeting the multicollinearity assumption among predictor variables is essential. To assess multicollinearity, the Variance Inflation Factor

(VIF) was computed for each predictor variable (X1, X2, X3 and X4). The findings of this evaluation are presented in Table 4.8.

Table 4. 8

Multicollinearity test results

Variable	VIF - Trainees data
X1	1.094
X2	1.141
X3	1.031
X4	1.094

The results presented in Table 4.8 indicate that the Variance Inflation Factor (VIF) for each variable falls within the range of one to five: X1 = 1.094, X2 = 1.141, X3 = 1.031, and X4 = 1.094. It is expected that the VIF remains between 1 and 5, and ideally not exceeding 10 (Grande, 2015). Accordingly, the findings suggest an absence of multicollinearity problem in the data.

The above diagnostic test results demonstrate the adherence to all the five assumptions (normality, linearity, auto-correlation, heteroscedasticity and multicollinearity). Consequently, the study opted for a parametric test, specifically, correlation and multivariate linear regression analysis, to investigate the n of psychosocial interventions on enhancing the PWB of CPs who are undergoing treatment at oncology clinics (OCs) in Meru County, Kenya.

4.6 Results Based on the Main Variables of the Study

The presentation and discussion of quantitative and qualitative findings of each variable adopted a converging research design. In this study, the information gathered from cancer patients through questionnaires was largely descriptive,and was hence significant in forming the basis of the argument in this study. The qualitative data from the open-ended questions in the questionnaires, and the responses from interview questions and focused group discussions are then presented and converged, pointing out areas of convergence of both quantitative and qualitative findings for each study variable. In that connection, the findings from quantitative are presented first then followed by qualitative findings and finally a discussion on convergence of the results.

4.7 Psychological Well-Being of Cancer Patients

The PWB of CPs was the dependent variable in this study. Both the quantitative and qualitative findings regarding this variable are presented and discussed in subsequent sub-sections.

4.7.1 Quantitative Findings on Psychological Well-being

The quantitative findings on psychological well-being of cancer patients are twofold; descriptive statistics findings and inferential statistics findings. The descriptive statistics results are presented and discussed first. In this study, the PWB of CPs was first assessed by posing several statements to the respondents based on identified indicators, requiring them to rate each statement accordingly. The rating scale was; Completely Agree = 7, Strongly Agree =6, Agree =5, Moderately Agree =4, Slightly Disagree=3, Disagree=2, Strongly Disagree 1. The results were interpreted by combining the responses for "Completely Agree," "Strongly Agree," and "Agree,” to indicate agreement. Similarly, the responses for "Slightly Disagree," "Disagree," and "Strongly Disagree." were combined during interpretation to indicate disagreement. The frequency and mean were also computed and interpreted accordingly. The statements measured in this variable focused on diverse aspects of psychological well-being including purposeful and meaningful living, supportive and rewarding social relationships, engagement and interest in daily activities, competence and capability in pursuits, contribution to others' happiness and well-being, resilience in the face of cancer, optimism about the future, and earned respect from others. The results were summarized as shown in Table 4.9.

Table 4. 9

Descriptive results on Psychological Well-Being of Cancer Patients

No.	Statement on psychological well- being of cancer patients (N = 277)	Completely Agree	Strongly Agree	Agree	Moderately agree	Slightly Disagree	Disagree	Strongly disagree	Mean	Std. Dev.
i.	I lead a purposeful and meaningful life.	52(18.8%)	72(26.0%)	74(26.7%)	37(13.4%)	9(3.2%)	22(7.9%)	11(4.0%)	5.04	1.622
ii.	My social relationships are supportive and rewarding	66(23.8%)	73(26.4%)	62(22.4%)	50(18.1%)	6(2.2%)	5(1.8%)	15(5.4%)	5.25	1.569
iii.	I am engaged and interested in my daily activities	58(20.9%)	49(17.7%)	77(27.8%)	34(12.3%)	37(13.4%)	8(2.9%)	14(5.1%)	4.92	1.656
iv.	I am competent and capable to do the activities that are important to me.	58(20.9%)	56(20.2%)	43(15.5%)	66(23.8%)	15(5.4%)	24(8.7%)	15(5.4%)	4.80	1.764

No.	Statement on psychological well-being of cancer patients (N = 277)	Completely Agree	Strongly Agree	Agree	Moderately agree	Slightly Disagree	Disagree	Strongly disagree	Mean	Std. Dev.
v.	I actively contribute to the happiness and well-being of others	66(23.8%)	50(18.1%)	50(18.1%)	59(21.3%)	47(17.0%)	5(1.8%)	0	5.05	1.481
vi.	I live a good life despite of the cancer disease	74(26.7%)	41(14.8%)	50(18.1%)	73(26.4%)	18(6.5%)	7(2.5%)	14(5.1%)	5.01	1.669
vii.	I am optimistic about my future	75(27.1%)	57(20.6%)	45(16.2%)	70(25.3%)	6(2.2%)	11(4.0%)	13(4.7%)	5.14	1.651
viii.	People respect me	78(28.2%)	50(18.1%)	59(21.3%)	34(12.3%)	14(5.1%)	14(5.1%)	28(10.1%)	4.96	1.928

The results show three aspects that talk about purposeful and meaningful life. The findings on the three aspects indicate that the majority of participants 198(71.5%), lead a purposeful and meaningful life. However, 42(15.1%) expresses a dissent opinion. The mean of 5.04 suggests a moderate level of agreement, while the standard deviation of 1.622 indicates some variability in responses. The findings suggest a high level of resilience and PWB which is crucial for coping with the challenges of cancer and indicates a potential strength that can be further fostered in supportive interventions. In contradiction, Negussie et al. (2023) in Addis Ababa, Ethiopia noted that the PWB of CPs was poor as presented by high psychological distress. Psychological well-being was influenced by age, marital status, and location of residence, cancer stage, co-morbidity and social support factors. This study mean, with the reference of the current findings that, demographic characteristics are crucial in cancer management. Therefore, supportive interventions which put into considerations age, marital status among other factors need to be strengthened to enrich psychological well-being of cancer patients.

Additionally, 184(66.4%) also responded in affirmative to the statement ‘I am engaged and interested in my daily activities’, while 59(21.4%) dissented. The mean of 4.92 indicates a moderate level of agreement and reflects a sense of purpose and interest, while, the standard deviation of 1.656 reflects notable variability in responses. This means that, healthcare providers may consider incorporating activities that align with patients' interests into their treatment plans, promoting a holistic approach to cancer care. The results further show that about 166(60%) number of cancer patients actively contribute to the happiness and well-being of others. However, 52(18.8%) disagreed, while 59(21.3%) moderately agreed. However, the mean of 5.05 indicates a high level of agreement, and the standard deviation of 1.481 suggests moderate variability in responses. The active contribution of cancer patients to the happiness of others is a positive aspect of their psychological well-being. Therefore, encouraging and acknowledging these contributions may play a role in fostering a sense of purpose and positive self-perception during the cancer healing journey. These findings compare very well with the observations presented by de Camargos et al. (2020) that in the comparison between cancer patients and healthier people, cancer patients were observed to be happier, contributed to the happiness of others and were interested in doing daily activities than counterparts. This explained behavior was attributed to positive view towards life despite the very hard times they underwent. In view of this finding therefore, the findings by de Camargos et al. (2020) agree that, support given to cancer patients by caregivers improve their perception towards life. This implies enhancing the quality of psychosocial-interventions in order to attain better psychological well-being.

The other theme which is inferred from the findings is on social relationships which is indicated by two statements, "My social relationships are supportive and rewarding" and “People respect me." Table 4.9 shows that majority of cancer patients, 201(72.6%) of cancer patients feel that their social relationships are supportive and rewarding. Only, 26(9.4%) disagreed and 50(18.1%) moderately agreed. The mean of 5.25 indicates a relatively high level of agreement, and the standard deviation of 1.569 suggests moderate variability in responses. This is a positive indicator for the psychosocial support system available to cancer patients. This means that strengthening these social connections may contribute significantly to the overall well-being and coping strategies of individual cancer patient. Although 187(67.6%) felt respected by others, 56(20.3%) expressed a dissenting opinion, while, 34(12.3%) moderately agreed. The mean of 4.96 suggests a moderate level of agreement, and the standard deviation of 1.928 indicates considerable variability in responses.

The results shows that, while a significant proportion feels respected, the presence of moderate agreement and the dissenting suggests variations in how individuals perceive respect. This indicate a need for healthcare providers and support systems to be attentive to the diverse needs and experiences of patients, ensuring that respectful and person- centered care is consistently provided. These findings compare with Brajković et al. (2023) who noted that, cancer patients in Croatia felt warmth, love and respect from their family members. This was demonstrated by their moderate dedication towards their emotional, social, financial and spiritual needs. Positive associations were found to be positively correlated with cancer patient life satisfaction, resilience and quality of life. These results therefore, underpin the needfulness of supportive and positive family relationships. The discussed results pose implications on strengthening family counseling practices.

Further, results show that about 157(56.6%) of participants either agreed being competent and capable to do the activities that are important to them. Those disagreeing were 54(19.5%) while 66(23.8%) moderately agreed. Similarly, the mean of 4.80 suggests moderate agreement, and the standard deviation of 1.764 indicates considerable variability in the responses. Although the majority feels competent and capable, the presence of a significant percentage expressing moderate agreement suggests a need for tailored interventions to boost self-efficacy. Thus, addressing specific concerns and providing skill-building resources could enhance the overall sense of competence among cancer patients. The results support the observations presented in Europe that, active engagement of cancer patients in activities important to them, physical exercise and unrestricted engagement improved their resilience to the side effects of the drugs, PWB and physical health (Ax et al., 2020). Noting that the results underscore the benefits of being fit and doing engagement activities, this implies to the current findings on the need for tailor made support services which aim at enhancing cancer patient participation, working, competency and activity engagement.

The other two statement were about resilience and optimism. The findings show that 165(59.6%) of cancer patients who participated in the study, felt that they live a good life despite the challenges of cancer. However, 73(26.4%) indicated a moderate opinion, while 39(14.1%) disagreed. The mean was however high, 5.01 suggesting a moderate level of agreement, while the SD of 1.669 indicates variability in responses. The substantial agreement on living a good life despite cancer is a promising finding. It underscores the potential for a positive mindset even in the face of significant health challenges. Integrating this positive outlook into psychological support interventions can be beneficial. Related to this theme was optimism about the future, where, 177(63.9%) expressed optimism about my future. However, 70(25.3%) moderately agreed, and 30(10.9%) disagreed. The mean of 5.14 indicates a relatively high level of agreement, while the SD of 1.651 suggests moderate variability in responses.

The results show that the overall optimism about the future among cancer patients is high. This indicates a forward-looking perspective and suggests that many patients maintain hope and resilience. Therefore, incorporating strategies to nurture and sustain this optimism may positively influence the long-term psychological well-being of cancer survivors. Similar findings by Gao et al. (2019) were supported in China. The team found out that participants with oral cancer were resilient. This was expressed by their hope, optimism and social support they received from family and caregivers. Resilience was also found to be correlated with psychological well-being. These discussed findings therefore, underscore that patients, although suffering health wise to a greater extent, the support they receive affect their hope, which drive them optimistic and resilience. To this study, the results in agreement with the discussion herein communicate a need to provide strong social support among cancer patients in Meru County.

Having analyzed each item featuring in Psychological Well-Being Scale (PWB), the study further evaluated the PWB score of each individual cancer patient as guided by Diener et al. (2009). The results were summarized as shown in in Table 4.10.

Table 4. 10

Psychological well-being scale of cancer patient in oncology clinics

Scale, Range (8 - 56) (N = 277)	Frequencies	Percentages
16	5	1.8%
22	11	4.0%
26	2	0.7%
27	6	2.2%
29	4	1.4%
30	18	6.5%
32	5	1.8%
33	29	10.5%
34	12	4.3%
35	14	5.1%
36	3	1.1%
39	16	5.8%
41	11	4.0%
42	19	6.9%
43	28	10.1%
44	3	1.1%
46	16	5.8%
47	5	1.8%
48	4	1.4%
49	3	1.1%
50	14	5.1%
51	12	4.3%
52	15	5.4%
54	3	1.1%
55	19	6.9%
Average PWB score = 39.2		

The results show that the PWB score for cancer patient in oncology clinics in Meru County ranges from 16 to 55 with the average being 39.2 (Diener et al., 2009). According to Diener et al. (2009), PWB score ranges from 8 to 56; where, high score represents a person with many psychological resources and strengths. Ten point five percent (10.5%) of cancer patients in oncology clinics in Meru County scored 33, followed by 28 representing 10.1%, scoring 43, while the least (0.7%) [2] scored 26. This implies that the majority view themselves moderately positive in diverse areas of human functioning. These results do not agree with the findings obtained by Gitonga (2019) at Kenyatta National Hospital. Gitonga found out that, cancer patients seeking outpatient services were very anxious, stressed-up, depressed and pessimistic, hence their low score levels of their psychological well-being. The poor psychological well-being was found to result from poor social support, low level of education and awareness, being widowed and financial constraints. In this study, the discussed findings are an eye opener to the presented findings in that, they communicate the need for social, economic and emotional support in enhancing PWB of CPs. This implicates on the need to strengthen PI among CPs and their close relatives.

The overall results indicate that majority of CPs in Meru County report positive and moderate psychological well-being. However, some variability and disagreement or uncertainty against some aspect of measuring PWB, particularly in areas such as perceived respect from others and competence in daily activities. The variability in the responses as indicated by standard deviation, highlights the diverse experiences among cancer patients, necessitating personalized interventions. In that connection, tailored psychosocial interventions focusing on comprehensive and patient-centered approach to cancer care, can further enhance strengths and address areas of moderate agreement, and contribute to a higher PWB score. These observations were also noted in Cameroon where patient psychological well-being and quality of life was fair (Ebob-Anya & Bassah, 2022). Despite the fair observations, patients suffered some level of anxiety, incompetency, financial distress, depression and work or school engagement. Generally, this imply that the situation is not completely out of hand, as presented by the little hope patients have, their psychological well-being may be improved by improved quality of care. Therefore, caregivers require training to be able to understand the issues surrounding a patient, hence offer special social help which will address their individual needs.

4.7.2 Qualitative Findings on PWB of Cancer Patients

In an open-ended question, cancer patients were asked to suggest ways in which their psychological well-being can be enhanced. Several suggestions were received which narrowed down nineteen distinct statements. The nineteen suggestions were further analyzed with a view to grouping them into five themes as shown in Table 4.11.

Table 4. 11

Patients' suggestions on how to enhance their psychological well-being

	Condensed suggestions from cancer patients	**Resulting themes**
1.	Develop support groups/social groups for cancer patients.	Social and emotional support
2.	By developing emotional, spiritual, and financial support.	
3.	Engage patients in productive activities.	
4.	Address patient anticipations through active listening.	
5.	Provide adequate and reliable information about cancer.	Information and education
6.	Regular individual counselling.	
7.	Family counselling and support.	
8.	Treat patient issues with utmost privacy.	
9.	Offer regular help to improve patient quality of life.	Medical and therapeutic support
10.	Offer occupational therapy.	
11.	Provide good treatment and patient follow-ups.	
12.	Government intervention for funding infrastructure.	
13.	Training of counselors.	Training and resources
14.	Financial support.	
15.	Opening and equipping cancer centers in every county.	
16.	Better referral services and systems, especially for psychotherapy.	
17.	Free medication and counselling services.	

18.	Provide information on medication, diagnosis, disease, and nutrition.	Streamlining services
19.	Establish a one-stop shop of services to avoid delays	

According to the results, the development of support groups and social networks emerges as a prominent theme. The results show that cancer patients emphasize the importance of shared experiences and emotional connections. This theme underscores the need for a supportive community to address both emotional and social aspects of well-being. One crucial aspect is the creation of support networks through the development of support groups. These gatherings serve as a platform for cancer patients to share experiences, fostering emotional resilience and a sense of community. Recognizing the multifaceted challenges that cancer bring, is critical in addressing emotional, spiritual, and financial needs to provide holistic support. Furthermore, encouraging engagement in productive activities not only occupies patients' time but also mitigates the risk of depression, emphasizing the importance of a balanced mental state during their healing journey.

Regarding the theme ‘information and Education’, it is undisputable that adequate and reliable information is a critical factor in cancer management. Cancer patients express a desire for comprehensive knowledge about their condition, treatments, and related aspects. This theme highlights the empowering nature of education, enabling patients to make informed decisions and cope effectively with the uncertainties of cancer. At the center to this theme also is the concept of active listening, where healthcare providers keenly tune into patients' concerns, fears, and expectations. This not only builds trust but also creates a supportive environment crucial for navigating the emotional complexities of a cancer diagnosis. Throughout the entire process, providing adequate and reliable information is very significant. By offering comprehensive insights into the cancer disease, treatments, and related aspects, patients are empowered to make informed decisions about their health, instilling a sense of control (Ogbole & Simon, 2019).

The emphasis on regular individual counselling, family support, and privacy underscores the need for tailored medical and therapeutic assistance. Cancer patient's value personalized care that addresses their unique emotional and medical needs. This theme highlights the holistic approach required to improve the overall QoL for CPs. This involves offering regular assistance and occupational therapy to enhance their well-being. Effective treatment and follow-ups are paramount, necessitating government intervention and funding to improve healthcare infrastructure, ensuring accessibility and quality care for all. Alongside these efforts, training counselors becomes essential to equip them with the skills required to provide the needed emotional support. In support, patient education in the oncology clinics have been found to be very contributory to the patient ability to cope with side effects, have knowledge on cancer management, diet required, secures family support and also better care by oncology caregivers (Iacorossi et al., 2023). Noting the important contributions of nurses and palliative care personnel toward patient empowerment, Iacorossi et al. (2023), noted the need for regular training and competency development for nurses/clinicians, procurement of counselling information materials, and conducive facilities for counselling where privacy and empowerment can be achieved. The agreement between the findings of current study with the preceding discussion underscores the importance of palliative care professional development empowerment through training, provision of resources and infrastructure. This has implication on government funding.

Another theme from qualitative results considered significant was training of counselors and financial resources support. It emphasize the importance of having well-prepared professionals to provide emotional support. Financial assistance is vital since it acknowledges the economic challenges that often accompany a cancer diagnosis. Notably, the financial support plays a critical role, as the financial burdens associated with cancer treatment can exacerbate stress. Establishing well-equipped cancer centers was also considered significant in various locations. This would enhance accessibility and preventing patients from having to travel long distances for essential services. Streamlining services through a one-stop-shop approach, offering free medication and counselling services, not only reduces bureaucratic delays but also eases the financial strain on patients, encouraging adherence to treatment plans. The results suggest the anticipated coping mechanisms for managing financial distress and cost cutting in cancer diagnosis and management. When related to Nmoh’s study in 2019, commonly, high financial distress was high among cancer patients and their families. Some of the suggested coping mechanisms included: having more than two insurance covers for a patient and increasing accessibility to cancer centers in each county in Kenya.

The above situation underscores the need for equipping level five hospitals in each county in Kenya with oncology clinics, machinery, well trained human resources, medicine and diagnosis. This has implication on government funding and collaboration with developed nations to realize this goal.

Streamlining services also emerged as significant theme. Suggestions such as better referral services, free medication and counselling reveal the practical challenges patients face in accessing timely and affordable care. This theme underscores the importance of streamlining services to reduce bureaucratic obstacles and financial burdens, ensuring that patients receive necessary support without unnecessary delays. In support, Njeru et al. (2021) also noted complexities in healthcare accessibility in Meru, Mombasa and Nairobi Counties which were associated with inaccessibility, unaffordability, unavailability and inadequacy of cancer care services. Njeru explained that, patients paid cash and relied on NHIF, suffered lack of transport to referred health facility, accommodation fees in the cities and hardly managed to pay for the lab tests results due to financial distress. Njeru therefore recommended the streamlining of services by bringing them closer to the citizen. This was to be achieved through collaboration between hospitals, NGOs, FBOs, the county government and developed nations to equip level five hospitals in the counties. These results communicate the need for actionable plans to seek funding interventions from able organizations through the ministry of health. The above five themes indicate a multifaceted nature of psychological well-being for cancer patients. It is clear that effective cancer patients' support goes beyond medical treatments, encompassing social connections, education, personalized care, professional training, and streamlined services.

This was also featured in the observations made by Njeru et al. (2021) who noted the need for holistic cancer healthcare system which had six major dimensions. These were: affordability of the services through wider insurance cover, availability of services at lower levels of care, extended and qualified staffing, improvement in information empowerment and cancer home/hospital caregiver's psychosocial support. The patient-driven suggestions underscore the importance of a holistic approach that considers the emotional, informational, and practical needs of individuals suffering from cancer. Discussed findings therefore, stress the need for this study to strengthen holistic approach to cancer care.

The caregivers of CPs who participated in the focused group discussion and clinicians who were interviewed were asked to state / share what they thought should be done at oncology clinics to improve the provision of PI to enhance the PWB of CPs. Their response are summarized in Table 4.12.

Table 4. 12

Suggestions for improving psychological well-being of cancer patients

Suggestions from caregivers and clinicians		Resulting themes
1.	Train palliative care givers/primary care workers.	Staff training and adequacy
2.	Employ adequate health workers.	
3.	Give incentives to workers, including transport, information materials, facilities, and counselling infrastructure.	
4.	Have free counselling services.	Counselling services and support
5.	The social work office should improve its social work support.	
6.	Provision of counselling room in all cancer oncology clinics.	
7.	Proper referral systems.	
8.	Have a multi-disciplinary team of staff in oncology clinics.	
9.	Good care of caregivers to address high burn-out and work-life balance through good remuneration, incentives, team-building, and other forms of motivation.	Caregiver support and patient-family burden reduction
10.	Cost sharing with the government to reduce patient and family burdens.	
11.	Regular camps to create awareness.	Awareness and community engagement
12.	Home visit clinics.	
13.	Community education to reduce stigma	

The thematic results indicate that efforts to improve psychosocial interventions in oncology clinics carry significant implications for patient care. Ensuring that palliative care givers and primary care workers are well-trained and adequate is critical to delivering effective psychosocial support. Clinician 02 remarked, *"The government should train caregivers so that psychotherapy is delivered by skilled and competent workforce".* The idea of training not only enhances the quality of psychosocial care but also contributes to a more compassionate and understanding healthcare environment. The focused group discussion agreed that adequate staffing, coupled with incentives, go a long way in addressing the essential need for a competent and motivated healthcare workforce. The need for competent, proficient, adequate and supportive oncology clinics nurses and caregivers was also well articulated by Howell et al. (2013) in a research based in Ontario, Canada. The research focused on the role of training on provision of psychosocial support among health care workers. It was established that, the enactment of a professional training and development programs among the healthcare workers improved confidence and the quality of psychosocial support. In line with the presented findings, Howell et al. opinions emphasize the implication of equipping oncology workforce with knowledge, incentives and counselling skills. Therefore, the situation presents the need to implement caregiver professional development programs.

The focus on counselling services and support is a crucial step to acknowledging the integral role of mental health in cancer care. The focused group and interview participants identified the provision of free counselling services and creating dedicated spaces for these services at the oncological clinics reinforces the commitment to addressing the emotional aspects of the cancer healing journey. Clinician 03 stressed, *“There is need to develop palliative care centers at hospitals in Meru County”.*

This can lead to increased patient satisfaction, better coping mechanisms and improved overall well-being.

Caregiver support and efforts to reduce the financial burden on patients and families are crucial for fostering a sustainable and supportive ecosystem. Acknowledging the challenges faced by caregivers and exploring cost-sharing mechanisms with the government demonstrate a commitment to the overall welfare of those affected by cancer. Clinician 05 noted, *"Government subsidies is a necessity in easing the financial burden for cancer screening, care, management and treatment plans".* This theme acknowledges that supporting caregivers is integral to sustaining effective psychosocial care. The novelty of caregiver support was also noted in the findings of a study done by Makau-Barasa et al. (2017) in Kenya which reported a very high fiscal burden among cancer patients and families. Makau-Barasa et al. qualitative results established that, government interventions through training nurses, enhancing patient health insurance, centralizing testing and treatment equipment in all counties, were needful. They stressed that, localizing special cancer care to local hospitals will cut a lot of costs encountered by cancer patients like transport, food, accommodation when sent far for testing, diagnosis and treatment.

Clinicians emphasized on awareness and community engagement which they said signifies a broader societal shift in understanding and supporting cancer patients. Regular camps, home visit clinics, and community education initiatives not only reduce stigma but also contribute to a more informed and empathetic community. On awareness program, Clinician 01 added, *"Awareness to farmers to enlighten them on the use of agrochemicals"* This, in turn, can positively influence the psychological well-being of cancer patients by fostering a supportive societal network. This theme recognizes the broader n of societal perceptions on the psychological well-being of cancer patients. Indubitably, converging results on the need for community education and awareness on cancer diseases was determined by Kale et al. (2023). The review underlined that, community education and engagement had the potential to secure community support, early screening and cancer detection, enhancing cancer control, society empowerment, stigma reduction, which in- turn improve the psychological well-being of cancer patients. This in turn, draws the attention of community partnership and awareness creation. Palliative care partners need government facilitation and training to participate in such activities.

Other suggestions received from clinicians were about providing incentives such as transportation, information materials, facilities, and counselling infrastructure which they said motivates healthcare workers. This, in turn, enhances the quality of psychosocial interventions provided to cancer patients. They also stressed on the need to strengthen social work support in oncology clinics to enhance the services provided by the social work office. This may include assistance with practical issues, coordination of support services, and addressing non-medical aspects of patient care. The need for health care workers motivation through providing conducive working conditions was underscored in the East African Community. The findings of Muthuri et al. (2020) pointed out that, community engagement practices, conducive working environment, bearable workload, training opportunities, supply of necessary medical supplies, monetary supply, schemes of service, good infrastructure and facilities improved caregiver motivation to work and satisfactory serve patients. Well served patients were termed to have stable psychological well-being. The results henceforth underscore the necessity of motivating health workers materially, infrastructural, through incentives and information-wise. This directly touches the government of Kenya budgetary policies and support.

The need to establishing effective referral systems was noted by clinician 01 who explained how it ensures that patients in need for specialized psychosocial support are connected to the appropriate resources or support groups. Clinician 05 additionally stressed on adoption of multi-disciplinary team work. She stressed, *“Having a multi-disciplinary team in oncology clinics ensures a holistic approach to patient care. Psychologists, social workers, and other specialists collaborate to address the diverse needs of cancer patients”.* In support, Pigni et al. (2022) also noted that psychosocial support which aim at enhancing the psychological well-being of cancer patients required an effective palliative care referral system. Pigni et al. also expressed that, an effective referral system comprises of: profound commodities, prognosis, psychological symptoms, patient request, communication and complexity of the disease. Therefore, in line with the preceding observed findings, oncology clinics in Meru County require to establish effective referral system to enhance patient satisfaction and quality of care hence their psychological wellbeing. This has implication on technology, human, material and clear communication preparedness. The above suggestions from care givers and clinicians provide comprehensive approaches for enhancing PI in oncology clinics. It is all about creating a well- trained and motivated healthcare workforce, prioritizing counselling services, supporting caregivers, reducing financial burdens, and fostering community understanding. This is a holistic approach which was identified critical in enhancing the psychological well-being of cancer patients. Similarly, other studies including van Klinken et al. (2023), Muthuri et al. (2020). Kale et al. (2023) and Pigni et al. (2022) have underscored the need for care giver training, motivation, support information and material resources, communication and infrastructure to encompass needful materials and property for ensuring successful psychosocial interventions. Noting the agreement in findings, a holistic approach towards psychosocial interventions in Meru County is required so as to enhance the PWB of CPs.

4.7.3 Convergence of quantitative and qualitative on PWB of cancer patients

The quantitative findings reveal positive aspects of psychological well-being, emphasizing purposeful life, engagement, and positive social relationships. Qualitative insights complement these by providing outright suggestions that address the complex interplay of emotional, informational, and practical needs.

The emphasis on social and emotional support is evident in both sets of results. The desire for support groups, social networks, and positive social relationships aligns with the positive responses in the quantitative findings, indicating a high level of resilience and purposeful living among cancer patients. This convergence underscores the importance of a supportive community in fostering psychological well-being. These converging results compare well with Li et al. (2022) observations in china. Li et al. noted that, support groups, and spiritual-welfare were important contributors in the happiness and QoL of CPs. On the other hand, the discussed results shed light that, psychosocial interventions like support groups are critical in enhancing the quality of life among cancer patients. Therefore, support group approaches need to be strengthened.

Information and education emerge as crucial themes in both sets of findings. The quantitative results show a positive outlook on life and optimism about the future, while qualitative insights stress the need for adequate and reliable information. The convergence here emphasizes the empowering nature of education, enabling patients to make informed decisions, maintaining hope, and navigating the challenges of cancer disease. This was in line with Nmoh (2019) findings that emphasized the need for training and deploying specialized human resources in oncology clinics. The above situation underscores the need for equipping level five hospitals in Meru County oncology clinics with well-trained human resources.

Counselling services and support, highlighted in both sets of findings, underscore the importance of personalized care. The quantitative results indicate positive perceptions of social relationships and feeling respected, while the qualitative insights suggest tailored interventions such as regular individual counselling and family support. This convergence emphasizes the need for a holistic approach that addresses both emotional and practical aspects of PWB. The recognition of the importance of a well-trained and motivated healthcare workforce is evident in both sets of findings. Positive responses in the quantitative results align with suggestions for training palliative care givers and primary care workers in the qualitative insights. This convergence emphasizes the pivotal role of healthcare professionals in providing effective psychosocial support.

The convergence around caregiver support and patient-family burden reduction is crucial. The positive sense of competence and capability in the quantitative results is complemented by qualitative suggestions for good caregiver care and cost-sharing with the government. This convergence recognizes the interconnectedness of patient and caregiver well-being. Awareness and community engagement emerged as converging themes, with positive outlooks on life and optimism in the quantitative results aligning with qualitative suggestions for awareness programs and community education. This convergence highlights the societal n on the PWB of CPs and the need for a supportive community. This was also featured in the observations made by Njeru et al. (2021) who noted the need for holistic cancer healthcare system. Njeru et al. opined that, government intervention to fund cancer treatment and care in form of affordability of the services through wider insurance cover and availability of services at lower levels of care enabled patient save money which they utilize to cater for lab tests, transport, accommodation and food when referred far away from their county of residence. Apart from that, the submission on the needfulness of information empowerment among the community/society also, had n on the caregiver’s psychosocial support. Therefore, both cost sharing of cancer medication and community support need to be strengthened.

The acknowledgment of the need for streamlined services is reflected in both sets of findings. The variability in responses in the quantitative results, coupled with qualitative suggestions for better referral services and a one-stop-shop approach, underscores the practical challenges faced by patients. This convergence emphasizes the importance of efficient and accessible services in promoting PWB of CPs. The convergence of quantitative and qualitative results emphasizes a holistic approach that addresses emotional, informational, and practical needs, and recognizes the interconnectedness of individual and community well-being in the context of cancer care (Klinken et al., 2023; Muthuri et al., 2020; Kale et al., 2023; Pigni et al., 2022).

4.8 Individual Counselling and Psychological Well-Being of Cancer Patients

The first objective investigated how individual counselling affects the PWB of CPs who receive care at oncology clinics in Meru County. Understanding the influence of individual counselling on the PWB of CPs in oncology clinics in Meru County is crucial for tailoring effective support systems. By investigating this variable the study aimed at identifying the specific ways in which individual counselling influences the psychological well-being of cancer patients. This knowledge is essential for refining and enhancing the provision of psychological support, ultimately promoting a more positive and well-rounded experience for individuals undergoing cancer treatment in Meru County's oncology clinics.

4.8.1 Descriptive results on Individual Counselling and the Psychological Well-Being of Cancer Patients

The individual counselling was first measured quantitatively by posing several statements to the respondents based on identified indicators, requiring them to rate each statement accordingly. The indicators focused on strengths and potentials, problem-solving and solutions, empowerment and self-efficacy, and therapeutic relationship. The rating scale was: Strongly Agree (SA) = 4, Agree (A) =3, Moderately Agree (MA)=2, Disagree (D)=1, Strongly Disagree (SA) 0. The results were interpreted by combining the responses for "Strongly Agree," and "Agree,” to indicate agreement. Similarly, the responses for “Disagree," and "Strongly Disagree." were combined during interpretation to indicate disagreement. The frequency and mean were also computed and interpreted accordingly. The results were summarized as shown in Table 4.13.

Table 4. 13

Descriptive results on Individual Counselling

No.	Statement on Individual counselling (N = 277)	SD	D	MA	A	SA	Mean	Std. Dev.
	The clinician focused on my potentials and strengths	50(18.1%)	37(13.4%)	13(4.7%)	120(43.3%)	57(20.6%)	3.3	1.413
	I was helped to find solutions to the problems that developed due to my cancer disease	63(22.7%)	13(4.7%)	61(22.0%)	86(31.0%)	54(19.5%)	3.1	1.419
	I am motivated and able to address and solve the cancer disease challenges that I face	50(18.1%)	33(11.9%)	65(23.5%)	84(30.3%)	45(16.2%)	3.1	1.334
	What I usually do during therapy gives me new ways of looking at my problem.	49(17.7%)	26(9.4%)	100(36.1%)	40(14.4%)	62(22.4%)	3.1	1.352

No.	Statement on Individual counselling (N = 277)	SD	D	MA	A	SA	Mean	Std. Dev.
	I feel securely attached to my family and or care giver as a result of counselling	78(28.2%)	16(5.8%)	63(22.7%)	106(38.3%)	14(5.1%)	2.8	1.325
	I am able to reflect on what might be most difficult and how I feel compared to when I started counselling	48(17.3%)	30(10.8%)	50(18.1%)	106(38.3%)	43(15.5%)	3.2	1.325
	There are no aspects of the therapists that seems to interfere with my counselling	46(16.6%)	40(14.4%)	66(23.8%)	86(31.0%)	39(14.1%)	3.11	1.294
	I feel confident to share my emotions and experiences without fear of judgment	39(14.1%)	59(21.3%)	56(20.2%)	89(32.1%)	34(12.3%)	3.0	1.261

The results on individual counselling for cancer patients at oncological clinics in Meru County offer valuable insights into the varied experiences and perceptions of individuals undergoing therapy. The findings show that 87(31.5%) of participants agreed that clinicians focused on their potentials and strengths suggests a generally positive experience. While, 177(63.9%) and 13(4.7%) disagreed and moderately agreed respectively, the mean score of 3.3 and a SD of 1.413 suggest a moderate level of agreement with some dispersion in responses. The result underscores the importance of enhancing clinician-patient communication and ensuring that counselling strategies align with the unique needs of each individual. Also, they indicate a need for a more tailored and individualized approach in recognizing and building upon patients' strengths.

In terms of usefulness of individual counselling on problem-solving, while 76(27.4%) agreed that they were helped to find solutions to cancer-related challenges, the sizeable number, about 140(50.7%) disagreed and 61(22.0%) moderately agreed respectively. This highlights a potential gap in that a notable portion did not feel adequately supported in problem-solving through counselling. Counselling interventions have benefit when done through a more targeted focus on providing practical solutions, tailoring strategies to individual circumstances, and fostering a collaborative problem-solving approach. These findings compliment the recommendation put in place by the American Cancer Society (2023) which references that, the effectiveness of individual counselling is based on the ability of a counsellor or a palliative care giver to individualize, understand the circumstance surrounding a patient and unique issues disturbing them. These recommendations may explain why some cancer patients perceived individual counseling on finding solutions to their problems while others did not. Therefore, this implicates in creating a conducive caregiver-patient relationship coupled with trust, honest and openness in order to meet individualized needs of parent. Such has implications on caregiver skillfulness and professionalism.

Table 4.13 further shows that 83(30.0%) were motivated to address challenges related to cancer through individual counselling. 65(23.5%) and moderately agreed and 129(46.5%) disagreed respectively. This implies that clinicians need to explore additional motivational strategies and work closely with patients to align therapeutic goals with unique challenges for each cancer patient. Similarly, Dugosh et al. (2016) had earlier emphasized that, individual counselling needs to be client-focused and goal oriented. This is because effectiveness of individual counselling is determined by patients' perception of its usefulness as a result of its engagement. Thus, Dugosh et al. (2016) suggested that, in order to motivate cancer patients towards individual counselling, there was need to understand and meet their individual needs, attain positive treatment goals and progression. The results have implication on counselors training on motivational ways of seeking patient's attention. This implies the need for in-service professional development.

Further, 140(58.5%) of cancer patients agreed that individual counselling provides new perspectives while 61(22.0%) moderately agreed and 76(27.4%) disagreed. Counselors could adapt their approaches to offer a broader range of perspectives and ensure that patients receive the maximum benefit from their counselling sessions.

The statement "What I usually do during therapy gives me new ways of looking at my problem" received agreement from a majority of respondents, 102(36.8%). Nevertheless, 75(27.1%) disagreed, and 100(36.1%) moderately agreed, do not only indicate varied perspectives among participants, but, suggest that a substantial portion did not perceive the counselling process as complete in providing new perspectives. The mean score of 3.1 and a standard deviation of 1.352 indicating a moderate level of agreement with some variability in respondents' perceptions. The results point out a need for clinicians to remain attentive to individual differences and continuously assess the effectiveness of emotional support strategies, ensuring a secure and trusting therapeutic environment. Key aspects featuring in the current study findings were also evident in the research carried out by Meibodi et al. (2021) which revealed the essence of utilizing scientific interventions, a conducive counselling environment, therapeutic changes, patient privacy and confidentiality and the specific needs of cancer patients. These findings argue for the need to develop individual counselling measures specifically designed to seek the attention and perceived usefulness of therapeutic interventions.

While positive outcomes were observed in terms of patients' attachment to family or caregivers and their confidence in sharing emotions without fear of judgment, dissenting opinions were also noted. For instance, the statement "I feel securely attached to my family and or caregiver as a result of counselling" recorded agreement from 120(43.4%) cancer patients. However, 94(34.0%) expressed disagreement, highlighting a significant portion of individuals who did not feel a secure attachment. Notably, 63(22.7%) moderately agreed which indicates some reservation. The mean score of 2.8 was slightly above average, and a standard deviation of 1.325 suggesting some dispersion in responses. These results dissent the opinions of Chan et al. (2018) who identified that, cancer patients were not free to share their emotional and psychosocial needs due to poor nurse-patient partnerships, poor communication and lack of well constrained oncology clinics. The presented situation herein expand the need for cancer patient caregivers to remain attentive to individual differences, communicate effectively and continuously assess the environment so as to improve patient ability to open up.

In the evaluation of the therapeutic process, the statement "I am able to reflect on what might be most difficult and how I feel compared to when I started counselling" received agreement from the majority, 149(53.8%) of participants. Nonetheless, 78(28.1%) disagreed, signaling a notable portion who did not feel able to reflect on their experiences during counselling. The 50(18.1%) who moderately agreed present a reserved perspective. The mean score of 3.2 and a standard deviation of 1.325 indicate a moderate level of agreement with some dispersion in responses. A higher level of agreement between the influences of individual counselling was established between earlier and later experiences and perspectives towards life among cancer patients in Asia (Bafandeh Zendeh et al., 2022). Bafandeh Zendeh et al. submitted that, caregiver competency, understanding patient behavior, friendly patient-nurse relationship and compassionate care were among the parameters which bore results in the emotional status of cancer patients over a period of counselling interventions. Concisely, the bottom line of Bafandeh Zendeh et al. results imply the need to provide need-based training for cancer patient’s clinicians in order to improve their relationships, compassion, competency and understanding the needs of their patients.

Regarding interference from therapists, the statement "There are no aspects of the therapists that seem to interfere with my counselling" received agreement from

125(45.1%) of respondents. However, 86(31.0%) disagreed, suggesting that approximately a fifth perceive aspects of interference; while, 66(23.8%) moderately agreed. The mean score of 3.1 and a standard deviation of 1.294 indicate a minimal variability in responses.

The statement "I feel confident to share my emotions and experiences without fear of judgment" received agreement from 123(44.4%) of respondents. However, 98(35.4%) expressed disagreement, indicating a substantial portion of participants who did not feel confident in sharing their emotions without fear of judgment. The 56(20.2%) who moderately agreed further indicate varied perspectives among participants, also indicate some reservations. The mean score of 3.0 and a standard deviation of 1.261 suggest a moderate level of agreement with some variability in respondents' perceptions. This was however not the case in the results presented by Chan et al. (2018) in China, that, cancer patients were not free to share their emotional and psychosocial needs due to poor nurse- patient partnerships, poor communication and lack of well constrained oncology clinics. This indicates a need for boosting the confidence of patients to share their experiences openly with cancer patient clinicians. In this study, the discussed results herein imply the need room for enhancing patient-caregiver relationship through trusted communication, confidential counselling rooms and creating good relationships through creating an environment which foster openness, trust, honesty and truthfulness. This implicates on clinicians specialized training.

The foregoing findings underscore value for flexible and personalized approach to individual counselling with emphasis on feedback mechanisms, regular assessments of patient satisfaction, and the incorporation of diverse therapeutic techniques to meet the varying needs of cancer patients. While the positive aspects of individual counselling are evident, the dissenting and moderately agreeing perspectives provide valuable guidance for refining counselling approaches. The implication of these findings extend beyond the oncology clinic setting. They further indicate the need for continuous professional development for counselors, incorporating patient feedback into training programs, and fostering a culture of adaptability and responsiveness in oncological health care. Some notable approaches to effective individual counselling were noted in the study carried out among Hispanic patients by Elimimian et al. (2020). Some of the recommended best practices included: privacy, communication, therapy consistency, patient feedback, understanding individual needs of patients and nurse training and competency development. To this study, the presented situation narrates room for improvement. Therefore, the benefits of individual counselling may be realized through continuous professional development for counselors, creating conducive environment for opening up and fostering a culture of adaptability and regular assessments of patient satisfaction.

4.8.1 Inferential Statistical Findings on Individual Counselling of Cancer Patients

An inferential statistical analysis was conducted to answer research question one. The research question one was: How does individual counselling affect the PWB of CPs who attend oncology clinics in Meru County? In answering this research question, a Pearson correlation statistical analysis was conducted and results are shown in Table 4.14.

Table 4. 14

Correlations results

		X1	Y
X1	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	277	
Y	Pearson Correlation	.193**	1
	Sig. (2-tailed)	.001	
	N	277	277

**. Correlation is significant at the 0.01 level (2-tailed).

The findings indicate that individual counselling had a positive and statistically significant relationship with psychological well-being of cancer patients (r = .193, p = .001<.05). The results mean that a change in individual counselling triggers a change in PWB of CPs in the same direction. Consequently, the study conclude that individual counselling practices significantly affect PWB of cancer patients in oncology clinics in Meru County, Kenya. The results are against the observations submitted by Muita (2018) who noted a positive weak correlation between counselling intervention and PWB of CPs. Also, the social cognitive theory reflect on the n of PI in enhancing PWB of cancer patients. The study findings imply that, an increase in counselling interventions improves the PWB of CPs. Hence, the presence of statistical significant relationship imply the need to strengthen individual counselling strategies and approaches. This may be achieved by: training clinicians, building counselling room for privacy, understanding the needs of individual patients, repackaging tailor made information and establishing relationships.

4.8.2 Qualitative Findings on Individual Counselling of Cancer Patients

Care givers were asked in a focused group discuss to describe how individual counselling has been of help to their patient in terms of enhancing psychological well-being. The various responses received were re-stated in broadly collocated depending on a common message. This culminated into nine statements. The nine statements were hence analyzed to identify themes. Five themes were developed as shown in Table 4.15.

Table 4. 15

Statements on how individual counselling has been of help to cancer patient

	Statements from cancer patients	Resulting themes
1. 2. 3.	Promoted acceptance and openness about the disease and even how the patient is feeling Improved coping with families and friends I was able to manage challenges more better	Emotional well-being
4.	Improves understanding of the treatment process such as chemotherapy, radiotherapy, surgery, nutrition, and psychotherapy	Education and understanding
5.	Reduced stigmatization in society, family, and other environmental circles surrounding the patient	Social support and stigmatization
6. 7.	Enhanced adherence to treatment and cancer management once the disease is diagnosed Eased adjustment to new lifestyles such as expecting long treatment outcomes, not healing but managing the condition, foods to avoid, and reproductive issues as a result of effects of the medicine	Treatment adherence and management
8. 9.	Promotes confidentiality and privacy of the patient Makes it easy to introduce new and alternative methods of treating the patient	Privacy and alternative treatment options

The findings from focused group discussion emphasized individual counselling as a cornerstone in the comprehensive care of cancer patients, offering profound implications for their psychological well-being. The first theme on emotional well-being, cancer patients underscored the crucial role counselling plays in fostering acceptance and openness about the cancer disease. Individual counselling helps patients acknowledge and accept their condition, fostering open communication about their emotions and experiences. It also supports patients in developing effective coping mechanisms, aiding in better interactions with their support network. In addition, it equips patients with tools to navigate challenges, promoting improved emotional resilience and overall well-being. By providing a safe space for patients to express their feelings, individual counselling becomes a vital component in addressing the emotional toll of cancer. Furthermore, improved coping strategies not only empower patients but also enhance their interactions with family and friends, creating a robust support network. In concurrence, Wafula (2017) also noted many benefits of well- offered individual counseling interventions to breast CPs in Faraja, Nairobi County. Some of the found contributions included: improved patient quality of life, improved patient care, stress management, financial support and PWB among the breast cancer patients. Noting the agreement on the perceived benefits of individual counselling on CPs, the results imply the need to strengthen the interventions in order to realize the psychological well-being.

In terms of education and understanding, the second theme, counselling acts as a beacon of knowledge. Counselling provides detailed information about various treatment options, enhancing the patient's understanding and informed decision-making.

Patients gain insights into the intricacies of treatment processes, enabling them to make informed decisions about their care. This understanding fathoms a sense of control and empowerment, which are critical elements when undergoing cancer treatment. This was also noted in the report presented by Hack et al. (2023) in Germany, which underscored that counselling improved cancer patients ability to make decisions such as which medication to utilize, patient collaboration and opening up to family members, how to cope with side effects of the disease or treatment regimen introduced and self-acceptance. Noting the agreement on the role of counseling in helping cancer patients make informed decisions, cancer patients care giver need to be updated with issues surrounding cancer management and also individual needs of patients. Therefore, their ability to empower patients lies on the attention given to caregiver competency and professional development.

Regarding the third theme about social support and de-stigmatization, the emphasis on the transformative n of counselling on societal perceptions is evident. Cancer patients said that individual counselling helps break down societal stigmas associated with cancer, fostering understanding and support from the patient's immediate and broader social circles. By breaking down barriers and reducing stigmatization in various circles, counselling facilitates a supportive environment crucial for a patient's emotional resilience. The implications extend beyond the individual, influencing societal attitudes toward cancer and contributing to a more compassionate and understanding community. This was also noticed in the results of Zamanian et al. (2023) who in parallel noted that addressing stigmatization among cancer patients helped them realize social support, positive reframing, finding meaningfulness to life, resilience in patients and extended compassion and understanding by the community. Therefore, noting the consensus on the role of counseling in de- stigmatization, the findings implicates on the need to strengthen individual counselling strategies which go on a long way to earn community compassion and understanding.

The forth theme on treatment adherence and management, highlight the instrumental role of counselling in ensuring that patients actively participate in their care. According to the cancer patients, individual counselling aids in establishing a strong patient-provider relationship, leading to increased adherence to prescribed treatments and a more active role in managing the disease. The establishment of a strong patient-provider relationship is integral to adherence, and counselling serves as a bridge in fostering this connection. Moreover, individual counselling aids in the adjustment to new lifestyles, acknowledging the challenges posed by long treatment outcomes and the need for managing, rather than curing the condition. During the process, patients receive guidance on adjusting to the challenges posed by cancer, including lifestyle changes, managing expectations, and addressing potential side effects. These findings support the recommendations aired out by patients with chronic diseases in a study carried out by Kvarnstrom et al. in 2021. Specifically, it was established that, counselling patients individually with chronic diseases impacted them with knowledge of diseases and their treatment, improved communication, built trust in patient-provider relationships, improved social support and adequate resources were important facilitators in medication adherence from the patient perspective. Moreover, empowered patient’s adaption to life changes and adverse effects of the chronic illness. The discussed results opine the needfulness of counselling services in securing patient adherence and adaption to lifestyle and side effects of diseases. Therefore, important aspects deemed critical for successful counselling like communication, patient- caregiver trust, social support and resource provision.

The fifth theme on privacy and consideration of alternative treatment options, heighten the personalized nature of counselling. The cancer patients felt that individual counselling ensures a confidential space for patients to express their concerns and fears without judgment, fostering a trusting relationship. By promoting confidentiality, counselling provides a safe haven for patients to discuss their fears and concerns openly. It also encourages conversations about alternative treatment approaches, recognizing the diverse needs and preferences of individual patients. In essence, counselling facilitates discussions about complementary and alternative therapies, allowing patients to explore additional treatment options tailored to their preferences and values.

These findings strengthen the argument aired out by Crits-Christoph et al. (2019) who found out that, effective counselling sessions required to be endowed with trust, respect, clear communication, friendliness, good patient-clinician relationships and confidentiality. Such virtues were found to possess the potential to influence the patient's confidence and space for patients to express their concerns and fears without judgment. The consensus between cancer patients and caregivers views therefore communicate that, individual counselling has potential of creating a conducive environment to discuss patient matters such as alternative cancer care and management mechanisms, having the assured privacy, confidentiality, trust built and healthier patient-counsellor relationship. Therefore, realizing these imply that, oncology care personnel need training and counselling rooms in order to create a safe environment which fosters opening up. The five identified themes underscores the crucial role of individual counselling in the cancer care process. The results implies that as a holistic and patient-centered approach, counselling not only addresses the psychological and emotional dimensions of cancer but also contributes to informed decision-making, societal support, and an enhanced quality of life for those facing this formidable challenge. This resonate not only at the individual level but extend to broader societal perspectives, shaping a more compassionate and supportive landscape for individuals undergoing cancer treatment. In consensus, Periasamy et al. (2020) study noted that: individual counselling in Iran improved patient's quality of life, psychological health, physical health, social relationships, community acceptance and patients survival rates. This underscores that, investing in strengthening individual counselling parameters will increase the PWB and quality of life of the affected persons. The presented results oblige oncology clinics to be equipped with oncology care professionals, counselling infrastructure and scheduled professional development for employed cancer patient clinicians.

The clinicians were asked during interview to suggest ways in which individual counselling can be improved to enhance the psychological wellness of cancer patients. A similar question was posed to cancer patients in an open-ended question. The qualitative responses from both clinicians and cancer patients were grouped into fifteen distinct statements. These statements were further analyzed thematically to identify underlying themes and categories of the same. The resulting five themes are shown in presented in Table 4.16.

Table 4. 16

Improvement needed to enhance individual counselling for cancer patients

	Statements from clinicians and cancer patients	Resulting themes
1.	Professional development and training of individual counsellors	Professional development and qualification
2.	Employ a qualified staff who does individual counselling	
3.	Patients to be counseled by trained and qualified therapists	
4.	Hiring and employing specialists	
5.	Infrastructure for doing individual counselling/open counselling rooms in all oncology units	Infrastructure and resources
6.	Build counselling rooms	
7.	Government intervention to deploy infrastructure, facilities, resources, and tools for supporting counselling services in oncology clinics	
8.	Always seek family and patient support	Patient and family-centered approaches
9.	Have frequent counselling to patients to promote acceptance and non-denial of life	
10.	Encouraging members to communicate freely	
11.	Home visits with incentives such as food	
12.	Have regular follow-ups, checkups, and clinics for patients	Coordination and follow-up
13.	Diagnosed patients should be counselled before the biopsy results are given out	
14.	Observe a lot of privacy during counselling to promote winning of trust	Positive attitude and communication
15.	The counsellor should implant a positive attitude toward the disease and treatment course to the patient; the counsellor should not emphasize the negative repercussions of the disease to the patient	

The results show that elevating the quality of individual counselling at oncology clinics requires a multifaceted approach, as suggested by the findings. The first theme, emphasizing professional development and qualification, underscores the critical need for well-trained counselors and specialists. Incorporating continuous training and ensuring that the counselling staff possesses the necessary qualifications are critical steps in delivering effective psychological support to cancer patients. With this regards, Ferrara et al. (2022) carried a study to deliberate on the required efforts towards enhancing efficiency in cancer care. There researchers suggested dimensions, strategies and areas which required evaluation. Among the stated dimensions such as financing, process ownership and ICT integration, human resource management practices such as staff motivation and professional development and training were stated as key dimensions for reaching efficiency in cancer care. The emphasis for professional development and qualification, underscores the critical need for well-trained counselors and specialists. This has implications in implementing a human resource management practices.

The second theme is about infrastructure and resources. The call for dedicated counselling rooms and the endorsement of government intervention indicate a recognition of the environmental n on counselling efficacy. The result mean that creating a conducive environment for individual counselling is crucial at oncology clinics. The results indicate a need for government through hospitals to invest in suitable infrastructure and garnering systemic support, and creating spaces conducive to fostering trust and open communication for effective counselling services. The importance of well-equipped oncology clinics and cancer centers was also well articulated in the findings of Yuca et al. (2017) in Indonesia. Yuca et al. expressed the importance of infrastructure and equipment to be effectiveness of guidance and counselling services. Therefore, in line with the discussed findings, the current study findings underscore the need for oncology clinics to invest in building infrastructure, facilities and resources such as counselling rooms, counselling information materials, furniture, technology and capacity building of the cancer centers. This has implication on government intervention through increasing the budget allocated to oncology clinics.

Patient and family-centered approaches has also featured as a significant theme, acknowledging the interconnectedness of psychological well-being with familial and social support. Regular counselling sessions and encouragement for open communication signify a shift towards holistic care that recognizes the integral role of family dynamics in the patient's journey. This theme emphasizes the importance of involving both patients and their families in the counselling process. Home visits with incentives further demonstrate a commitment to personalized care beyond the clinic walls, a supportive network and promotes acceptance which is essential for psychological wellness. Likewise, it has also been noted that, social connectedness and family social support potentially improved the QoL among cancer patient in China (Wu e al., 2021). In comparison to the study findings, Wu et al. results communicate to the current study, the necessity of seeking family and close home caregivers support in making individual counselling effective for cancer patients. This implicates in finding mechanisms for engaging close family members on patient care who are responsible for caregiving.

The fourth theme, coordination and follow-up, highlights the importance of continuous care. Ensuring continuity of care through regular follow-ups and clinics is vital. Regular checkups and counselling before critical stages, such as biopsy results, not only provide necessary medical insights but also contribute significantly to the mental preparedness of patients, reducing anxiety and promoting proactive engagement with their treatment. In support is the report presented by the American Cancer Society (2023) which documented the necessity of complying to scheduled clinical appointments for cancer patients. The report clarified that, regular checkups improved the quality of life by monitoring patient progress. Therefore, it was clarified that patient medical follow up and regular therapies improve their view towards life, improve coping with the disease and also adherence to treatment plans. This has implication on cancer management clinic and scheduling management systems. Patients require education on the importance of complying with clinical checkups as well as reminder such as through their mobile phones.

The final theme centers on fostering a positive attitude and effective communication during counselling. In this study, privacy is identified as a key factor in building trust, and emphasizing a positive outlook regarding the disease and treatment course emerges as a crucial aspect of psychological support. Therefore, fostering trust through privacy and maintaining a positive attitude during counselling sessions are crucial components. It means that a counselor should avoid excessive emphasis on negative aspects to build a constructive and supportive environment for the patients. This underlines the significance of the counselor's role in shaping the narrative around the patient's healing journey. In Spain, the importance of effective communication among cancer patients and their caregivers was clarified. For instance, Sanz- Barbero (2016) found out that, attitudes towards cancer information and effective communication were critical aspects which caregivers must have. Through these components, sense of trust, confidence to share and security of confidentiality was secured in the patients. These results implicate the need for cancer patients’ clinicians to create a conducive environment which earn patient trust, assure privacy and triggers opening up. This is supported by facilities, education of the cancer patients’ clinicians and also resources.

The foregoing findings reveal a holistic view of strategies for enhancing individual counselling at oncology clinics. Emphasis is noted on professional development, infrastructure, patient and family-centered approaches, coordination, and communication. The results provide opportunities for oncology clinics to create an environment that not only addresses the medical aspects of cancer but also prioritizes the psychological well- being of patients,

4.8.3 Convergence of quantitative and qualitative on Individual Counselling of Cancer Patients

Both quantitative and qualitative findings on individual counselling of cancer patients yields valuable insights on diverse experiences and perceptions. One converging point across these findings is the importance of a tailored and individualized approach in counselling. While significant participants acknowledged clinicians focusing on their potentials and strengths, the dissenting opinions and qualitative themes like emotional well-being and treatment adherence underscore the need for a more personalized approach. This convergence implies that a flexible and tailored strategy in individual counselling is essential in addressing the diverse needs and strengths of cancer patients. Clinicians and psychologists should prioritize individualized interventions to enhance the effectiveness of counselling sessions. In agreement, Elimimian et al. (2020) also made a submission which underscored the potential of understanding individual needs of patients in order to get patients attention. To this study, the presented situation narrates room for undertaking regular assessments of patient satisfaction so as to know their needs and wants.

Another commonality is the necessity for practical problem-solving strategies within counselling. The quantitative data reveals that a significant portion of participants did not feel adequately supported in finding solutions to cancer-related challenges (27.4% disagreed, 22% moderately agreed). This sentiment aligns with qualitative themes emphasizing the role of counselling in helping patients manage challenges more effectively. The implication is that counselling sessions should not only provide emotional support but also focus on tangible, practical solutions tailored to individual circumstances. Clinicians should actively incorporate problem-solving approaches to enhance the overall effectiveness of counselling. In comparison, Dugosh et al. (2016) emphasized that, individual counselling needs to be client-focused and goal oriented so as to solve clients problems. The effectiveness of individual counselling is determined by the perceived usefulness patients perceive as a result of the engagement.

Motivation and addressing challenges also emerged as a converging point. While a substantial percentage did not feel motivated or capable of addressing challenges through counselling 83(30%) disagreed, 65(23.5%) moderately agreed), qualitative themes such as emotional well-being and treatment adherence highlight the role of counselling in addressing challenges and fostering motivation.

This convergence suggests a need for clinicians to explore additional motivational strategies and work closely with patients to align therapeutic goals with their unique challenges. It emphasizes the importance of not only addressing emotional needs but also actively promoting motivation through counselling sessions. In agreement, Dugosh et al. (2016) submitted that, motivating cancer patients to cherish individual counselling brought positive results such as positive attitudes towards cancer care management. Patient motivation was mostly activated through understanding and meeting their individual needs, attaining positive treatment goals and progression. The results have implication on counselors training on motivational ways of seeking patient's attention.

Diverse therapeutic modalities form another area of convergence. The quantitative data indicates varied perspectives on how therapy provides new perspectives, while the qualitative findings underscore counselling as a source of knowledge and new perspectives. This alignment implies a need for clinicians to adapt their approaches and offer a broader range of perspectives, ensuring that patients receive maximum benefit from their counselling sessions. The implication is that counselling strategies should be dynamic and responsive, catering to the diverse needs and preferences of individual cancer patients.

Confidentiality and trust is another converging point. A notable percentage of participants expressed reservations about sharing emotions without fear of judgment 98(35.4%) disagreed while 56(20.2%) moderately agreed, aligning with the qualitative theme of privacy. This convergence highlights the significance of maintaining a secure and trusting therapeutic environment. Clinicians should prioritize building trust and ensuring confidentiality during counselling sessions to create a safe space for patients to express their concerns openly. This was also appreciated by Meibodi et al. (2021) whose results revealed the essence of utilizing scientific interventions, a conducive counselling environment, therapeutic changes, patient privacy and confidentiality and the specific needs of cancer patients. This require well-trained therapists.The converging points across quantitative and qualitative findings underscore the importance of tailoring interventions, incorporating practical problem-solving, exploring diverse therapeutic modalities, promoting motivation, and prioritizing confidentiality and emphasize the need to align individual counselling services with the unique needs of each cancer patients.

4.9 Family Counselling and the Psychological Well-Being of Cancer Patients

The second objective evaluated the n of family counselling on the PWB of CPs attending oncology clinics in Meru County. The understanding of family counselling is crucial in this study in gathering information that helped to unearth interventions that not only address the individual's psychological needs but also to help harness the supportive potential within the family unit.

4.9.1 Descriptive Statistics Findings on Family Counselling of Cancer Patients

The family counselling was first measured quantitatively by posing several statements to the respondents based on identified indicators, requiring them to rate each statement accordingly. These indicators were: improved family involvement, enhanced communication and understanding, empowerment and informed decision-making, reduced stigma and improved relationships, problem-solving and solution-seeking, coping and trauma management, and frequency and consistency of counselling. The rating scale was: SA = 4, A =3, MA =2, D =1, SD = 0. The results were interpreted by combining the responses for "Strongly Agree," and "Agree,” to indicate agreement. Similarly, the responses for “Disagree," and "Strongly Disagree." were combined during interpretation to indicate disagreement. The frequency and mean were also computed and interpreted accordingly. The findings were summarized and presented in Table 4.17.

Table 4. 17

Descriptive Statistics Findings on Family Counselling of Cancer Patients

No.	Statement on family counselling (N = 277)	SD	D	MA	A	SA	Mean	Std. Dev.
i.	The counselling of my family members enabled the making of informed decisions on chemotherapy and other treatment	25(9.0%)	50(18.1%)	72(26.0%)	80(28.9%)	50(18.1%)	3.2	1.214
ii.	Family counselling helped in getting more family support	56(20.2%)	25(9.0%)	74(26.7%)	60(21.7%)	62(22.4%)	3.1	1.410
iii.	Family counselling empowered my family members, hence there is improved management of cancer treatment	32(11.6%)	40(14.4%)	71(25.6%)	84(30.3%)	50(18.1%)	3.2	1.247

iv.	Family counselling enhanced communication in my family regarding cancer illness and treatment	39(14.1%)	32(11.6%)	88(31.8%)	70(25.3%)	48(17.3%)	3.22	1.261
v.	The love and care I get at home improved after family counselling	41(14.8%)	47(17.0%)	70(25.3%)	92(33.2%)	27(9.7%)	3.10	1.219
vi.	My family members were counselled on hospital admissions arising from cancer illness.	61(22.0%)	9(3.2%)	55(19.9%)	96(34.7%)	56(20.2%)	3.22	1.414
vii.	My attachment to the family improved after family counselling	36(13.0%)	38(13.7%)	82(29.6%)	84(30.3%)	37(13.4%)	3.11	1.212
viii.	I feel confident to share my emotions, worries and experiences without fear of judgment of my family members	45(16.2%)	50(18.1%)	66(23.8%)	76(27.4%)	40(14.4%)	3.	1.298
ix.	My family members were talked to	67(24.2%)	11(4.0%)	22(7.9%)	86(31.0%)	91(32.9%)	3.4	1.563

	regarding food							
x.	The involvement of my family members in my medications and recovery improved after family counselling	40(14.4%)	26(9.4%)	45(16.2%)	107(38.6%)	59(21.3%)	3.4	1.316
xi.	My family members have been counselled several times regarding my cancer sickness	58(20.9%)	25(9.0%)	63(22.7%)	99(35.7%)	32(11.6%)	3.0	1.322
xii.	Family counselling has assisted in enhancin	64(23.1%)	28(10.1%)	71(25.6%)	86(31.0%)	28(10.1%)	2.9	1.321

	g my recovery and coping with trauma and worries							
xiii.	After receiving family counselling, my family members look for solutions to the problems that came up due to my cancer illness	72(26.0%)	20(7.2%)	46(16.6%)	114(41.2%)	25(9.0%)	3.0	1.375
xiv.	Family counselling has assisted me to adhere to cancer treatment	48(17.3%)	22(7.9%)	46(16.6%)	92(33.2%)	69(24.9%)	3.4	1.394

xv.	Family mutual support improved after the family counselling	44(15.9%)	19(6.9%)	60(21.7%)	101(36.5%)	53(19.1%)	3.3	1.308
xvi.	The encouragement that I receive from family members improved after the family counselling	23(8.3%)	51(18.4%)	75(27.1%)	71(25.6%)	57(20.6%)	3.3	1.225
vii.	Family counselling has helped to reduce stigma on cancer	37(13.4%)	43(15.5%)	36(13.0%)	95(34.3%)	66(23.8%)	3.3	1.354

Table 4.17 indicate a generally positive on family counselling on various aspects of family support and involvement. About 177(63.9%) of cancer patients reported active engagement in discussions regarding dietary considerations while, 166(59.9%) agreed that family counselling helped seek involvement in medications and recovery. Moreover, 22(7.9%) and 45(16.2%) moderately agreed on the assertion of family counselling on food provision and medications and recovery respectively. Only 78(28.2%) and 66(23.8%) gave dissenting views on food and medications and recovery respectively.

The findings indicate a generally positive n of family counselling on various aspects such as; improved care, attachment, dietary practices, family relationships, family support, and cancer disease management. For instance, on the indicator on family support and involvement, 177(63.9%) affirmed that indeed the family was educated on food while 22(7.9%) moderately agreed and 78(28.1%) disagreed respectively. The involvement of my family members in my medications and recovery improved after family counselling 166(59.9%) agreed, 66(23.9%) disagreed, 45(16.2%) moderately agreed (Mean: 3.4, SD: 1.316). Family mutual support improved after family counselling according to 154(55.6%) cancer patients while, 60(21.7%) moderately agreed and 63(22.8%) disagreed. Further, the improvement in encouragement that cancer patients received from family members after family counselling was represented by 128(46.2%) agreeing, 74(26.7%) disagreeing and 75(27.1%) moderately agreeing (Mean: 3.3, Standard Deviation: 1.225). Also, 122(44.1%) agreed, 81(29.2%) disagreed, 74(26.7%) moderately agreed that family counselling helped in getting more family support. The mean and standard deviation for each of the four items indicate a high level of agreement with slight variations in responses. These results underscore the contribution family counseling can bring towards the cancer patient life. These results interlink with the observations aired out by Muita (2017) that family counseling helps family members express compassion, care, and financial, material, social, emotional and dietary care towards their family member infected by the cancer disease. As a result of family counseling, home caregivers were found to influence the quality of life of their infected loved one. The results herein underscore the necessity of family counselling. This implicates the need to maximize opportunities for family counselling.

The findings on education on food, medications and recovery, mutual support and encouragement appear to be about addressing the issue of family support and involvement. This suggest that counselling plays a crucial role in strengthening family bonds during the challenging period of cancer treatment. These results compare with the observations made by Inhestern et al. (2016) who perceived that, family counselling not only enhanced family communication, family support, attention and care towards their infected member but also reduced stigmatization. This implies a need to optimize family support and involvement. It also implies the need for healthcare professionals and psychologists to acknowledge the diverse needs and preferences within families. Offering personalized counselling sessions, considering dietary preferences and recovery plans, and ensuring flexibility in counselling approaches can therefore enhance the overall influence of family counselling to a great extent.

Additionally, Table 4.19 shows that family counselling enhanced communication of family regarding cancer patients. This is according to 118(42.6%) who agreed and 88(31.8%) moderately agreed. However, 71(25.7%) disagreed. Further, 116(41.8%) and 66(23.8%) of cancer patients agreed and moderately agreed respectively that they felt confident to share their worries and experiences without fear of judgment from my family members while, 95(34.3%) disagreed. These two aspect seems to stress on communication and expression and are hence underscoring improved communication and understanding. The findings therefore show that family counselling has a positive influence on communication. Recognizing individual comfort levels is crucial in fostering effective communication during counselling. The findings underscore the importance of creating a safe and supportive environment during counselling session for cancer patients. In support, Zaider et al. (2023) established the influence of counselling on enhancing family communication. Good communication was associated with alliance, responsiveness to change, mutual understanding and de-stigmatization. The results implies that healthcare professionals and psychologists should prioritize creating a safe space, tailoring communication interventions to individual needs, and promoting an environment where all family members feel heard and understood.

Three more statements were found to be aggressing one cross-cutting phenomena, that is, empowerment and informed decision-making. The three statements are:

- Family counselling has assisted me in adhering to cancer treatment where, 161(58.1%) and 46(16.6%) agreed and moderately agreed respectively while 70(25.2%) disagreed.
- The counselling of my family members enabled the making of informed

decisions on chemotherapy and other treatment where130 (47.0%) and 72(26.0%) agreed and moderately agreed respectively while 75(27.1%) disagreed.

- Family counselling empowered my family members, hence there is improved management of cancer treatment where 134(48.4%) and 71(25.6%) agreed and moderately agreed while 72(26%) disagreed.

The results show that positive perceptions regarding adherence to cancer treatment, informed decision-making, and empowerment through family counselling. This highlight its potential role in empowering treatment decisions, and enhancing patient and family engagement. However, dissenting views emphasize that counselling may not universally resonate with every cancer patient. The results implies that healthcare professionals and psychologists should recognize the diversity in attitudes towards empowerment and decision-making of concern patients. Notably, tailoring counselling sessions to accommodate individual preferences and offering comprehensive information can empower families to actively participate in treatment decisions and enhance adherence to cancer care plans. In support, Ehrbar et al. (2022) also reported the benefits associated with family counseling. The authors found that, there was contrast between before and after therapeutic family involvement which was demonstrated by remarkable improvement in household intercommunication, decision-making, participation and fulfillment. In this assertion, the results imply the necessity of caregivers to be facilitated with information resources and competencies so as to enhancing family counseling approaches that will empower the family members.

On a closely related observation, 161(58.1%) and 36(13.0%) agreed and moderately agreed that family counselling helped to reduce stigma while 80(28.9%) disagreed. Also, it was expressed by 121(43.7%) and 82(29.6%) who agreed and moderately agreed that attachment to the family improved after family counselling. However, 74(26.7%) disagreed that family attachment improved after family counselling. Further, 119(42.9%) and 70(25.3%) felt that love and care received from family members improved after family counselling as represented by their agreement and moderately agreement respectively. Only 84(31.8) % disagreed on the matter. The three statements are largely addressing reduced stigma and improved relationships. The positive outcomes related to stigma reduction, improved attachment to the family, and enhanced love and care at home demonstrate the potential of family counselling in fostering a positive and supportive environment. Dissenting views and moderate agreement indicate variations in individual experiences and perceptions.

The results imply that, to reduce stigma and improve relationships, healthcare professionals and psychologists should adopt a holistic approach in family counselling, addressing individual experiences and expectations. The results indicate that personalized interventions, along with open communication about cancer-related challenges, can contribute to fostering a supportive and loving home environment for cancer patients. Similarly, a systematic review by Kleine et al. (2019) in Germany had earlier established that family counseling was impactful among cancer patients. This study deduced that, family counselling involvement has the following effects: helped reduce mental agony, worries on financial burden and stigmatization, improved communication, self-efficacy and coping for the cancer patient. Therefore, to experience these benefits, strategies aimed at seeking family participation in counselling together with their patients are needful. Thus, oncology clinics may achieve this by undertaking personalized interventions, along with open communication about cancer-related challenges, education and empowerment, village cancer awareness programs and doing home visits to cancer patients to win their trust and cooperation.

Further, Table 4.19 shows that after family counselling, family members of a cancer patient looked for solutions to cancer related problems according to 139(50.1%) of cancer patients. However, 46(16.6%) moderately agreed to this statement while 92(33.2%) of cancer patients disagreed. On the stamen regarding the contribution of family counselling on enhancing cancer patient recovery and coping with trauma and worries, 114(41.1%) agreed, while 71(25.6%) moderately agreed. However, 92(33.1%) of the cancer patients disagreed to this statement. The results indicate that family counselling promote active problem- solving, recovery, and coping with trauma and worries.

The results shows that although there is a proportion of respondents who dissented, the largest majority indicates agreement. This highlights the importance of incorporating diverse coping mechanisms into counselling strategies and tailoring interventions to address specific challenges faced by families of cancer patients. In agreement to these findings, Shao et al. (2022) had earlier noted that, cancer patients experienced benefits such as resilience and ability to cope with changes. Shao and colleagues also established that members of a cancer patient developed responsible behavior and actively participation in problem-solving upon their involvement in family counselling.

In line with the discussed findings, the current study is noting the responsibility of counselors to highlight tailor made strategies aimed at addressing family specific needs. Healthcare professionals and psychologists should therefore endeavor to integrate a variety of coping strategies into counselling sessions and customizing interventions based on individual needs to enhance the overall effectiveness of family counselling in addressing trauma, worries, and problem-solving.

The last statement covers on the frequency and consistency of counselling sessions where, 131(47.3%) agreed while 63(22.7%) moderately agreed with the statement. Consistent family counselling sessions are perceived positively by most cancer patients, emphasizing their importance in addressing the evolving needs of families facing cancer- related challenges. However, 92(33.1%) disagreed with this. Dissenting views and moderate agreement suggest that the frequency of counselling may not suit everyone equally. The implication of the results to healthcare professionals and psychologists is consideration for flexible schedules, ongoing communication, and personalized strategies to ensure that families receive the consistent support they need throughout their cancer healing journey. This discovery was also noted by Shao et al. (2022) that, in order for families and cancer patients to appreciate the benefits of family counselling, their specific needs, problems and circumstances surrounding them need to be understood. These results express that, one family' problem may not be an issue to another and therefore, this calls for personalized strategies to ensure that families receive the consistent support they need throughout their cancer healing journey. This has implications on training novice caregivers on best practices for effective family counseling.

4.9.2 Inferential Statistical Findings on Family Counselling of Cancer Patients

An inferential statistical analysis was conducted to answer research question two. The research question two was: How does family counselling influence the PWB of CPs who attend oncology clinics in Meru County? In answering this research question, a Pearson correlation statistical analysis was conducted and results are shown in Table 4.18.

Table 4. 18

Correlations between family counselling and the PWB of CPs

		Y	X2
Y	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	277	
X2	Pearson Correlation	$.380^{**}$	1
	Sig. (2-tailed)	.009	
	N	277	277

**. Correlation is significant at the 0.01 level (2-tailed).

The findings indicate that family counselling had a positive and statistically significant relationship with psychological well-being of cancer patients ($r = .380$, $p = .009<.05$). Although the correlation coefficient is low, it is still statistically significant. The results mean that a change in family counselling triggers a change in PWB of CPs in the same direction. Consequently, the study conclude that family counselling practices significantly affect PWB of CPs in oncology clinics in Meru County, Kenya. A positive and significant relationship between family counseling and the PWB was also found in the study carried out in by Heydari et al. (2023) among cancer patients who were undergoing chemotherapy treatment. This also agrees well with the social cognitive theory that, reinforcement, self- efficacy, observational learning and behavioral capabilities enhances change. This implies that, counselling the family promotes the change in behavior, hence their PWB towards cancer disease. This relationship underscore that, the moderate PWB of CPs may be improved by investing in family counseling. This implicates on strategies such as consideration for flexible schedules, communication, tailored education and awareness programs and personalized strategies to meet specific family needs.

4.9.3 Qualitative Findings on Family Counselling of Cancer Patients

During the FGD, the caregivers' participants were asked to share thoughts and feelings on family counselling in enhancing PWB of CPs. The discussion evolved around four thematic areas; comprehensive well- being, knowledge and understanding, stigma reduction and supportive environment, and practical support and collaboration. The four themes were broken down inductively results to sub-themes as indicated in Table 4.19.

Table 4. 19

Caregivers' insights regarding family counselling for enhancing PWB of CPs

Number	Theme	Sub-themes
i.	Comprehensive well-being	Holistic support, including emotional, social, nutritional, financial, and spiritual dimensions
ii.	Knowledge and understanding	Improved understanding of the disease, education, and awareness
iii.	Stigma reduction and supportive environment	Promotion of stigma reduction, handling external judgments, fostering a supportive environment within the family
iv.	Practical support and collaboration	Resource allocation, identification of caregivers, cost management, treatment planning, and collaborative decision-making.

The resulting themes and sub-themes show that holistic support encompassing emotional, social, nutritional, financial, and spiritual dimensions is paramount in family counselling. Table 4.19 further shows that, enhancing understanding of the disease is a critical step in family counselling. This can be done through education and awareness programs conducted in local languages and through community workshops featured in the discussion. This can empower patients and their families with the knowledge needed to navigate the challenges associated with cancer. The implication is that an informed community is better equipped to make decisions about cancer treatment and support. These results agree with the observations documented by Alexander (2019) that, awareness creation on cancer disease, methods of treatment, diet, patient care and family counselling enabled most cancer patients to receive psychosocial support from family members and the society at large. In this connection, family counselling strategies aimed at creating awareness such as community workshops are needful to empower patients and their families with the knowledge needed to navigate the challenges associated with cancer.

The tailored education and awareness programs is associated with improved acceptance, which indicates a shift in the emotional mindset of both patients and family members. Family counselling, in this context, therefore, becomes a pivotal intervention that goes beyond addressing the medical aspects of cancer. It acts as an educational platform, fostering a deeper comprehension of the challenges and requirements associated with the specific type of cancer. Gritti (2015) noted that improved understanding not only aids in providing better care but also reduces misconceptions and fear within the family. Heydari et al. (2023) further noted that informed family members are more likely to be proactive in seeking appropriate medical interventions and adapting their lifestyle to support the patient. The holistic support system provided through family counselling can significantly contribute to the overall quality of life for cancer patients.

The third theme, involved addressing stigma through family counselling to enhance the psychological wellbeing of cancer patients. The participants felt that, implementing community-wide awareness initiatives, leveraging testimonials from survivors, and collaborating with local leaders can contribute to reducing stigmas. More importantly, creating a supportive family environment is equally crucial, and counselling sessions can serve as a platform for open communication and understanding among family members. The findings underscore the role of family counselling in addressing societal stigmas associated with cancer. The results imply that a supportive environment plays a crucial role in alleviating the psychological burden on cancer patients. The study by Oystacher et al. (2018) also describe stigma reduction as critical for the mental health of cancer patients. By oncology clinics fostering an environment of understanding and support, it enables family counselling to contribute not only to the patient's well-being but also challenges societal attitudes towards cancer.

The FGD further indicates that practical support, including resource allocation and cost management, is essential in enhancing PWB of CPs. The resulting theme and sub-themes emphasizes the practical aspects of dealing with cancer, such as resource allocation, identifying caregivers, and managing the financial burden associated with treatment. The discussion further noted that collaborating with local organizations, government agencies, and non-profits can also help in subsidizing treatment costs, and facilitate financial counselling. Involving families in such collaborative decision-making processes ensures a more integrated and effective support system. Collaborating these findings, Carrera et al. (2018) established the need to put up strategies towards addressing cancer management burdens in Ghana. Some of the observed strategies included: having free oncology counselling sessions and discussing with family members on insurance. Government funding and collaboration with NGOs were all meant to ensure the affordability and accessibility of cancer patient medical attention among cancer patients. The said mechanisms imply the need for oncology caregivers to advice family members on financial issues in the journey of managing their patient.

The caregivers' views in the foregoing discussion reflect the profound influence of family counselling on the PWB of CPs. The study notes that beyond emotional support, family counselling plays a crucial role in providing holistic care, reducing stigma, enhancing understanding, and facilitating practical aspects of treatment and management.

Additionally, clinicians were asked through interview to explain how family counselling enhance psychological well-being of cancer patients. Their responses largely focused on enhanced support systems, facilitated decision-making, promotion of family harmony, preparedness for challenging outcomes, and stigmatization management. This meant that family counselling played a key role in fostering a supportive systems including emotional, family, financial, social, and economic support. Clinician 05 said the support include*, "being accompanied for cancer treatment"*

In addition, clinician 02 said, "*Family counselling eases and simplifies decision-making processes on treatment, cancer management measures and agreement on hospitalization."* This implied that family counselling aids in decision-making. Certainly, the complexity of cancer treatment decisions can be overwhelming; hence, family counselling facilitates communication among family members, enabling collective decision-making. This shared responsibility helps alleviate the burden on the patient and ensures that decisions align with their values and preferences. Further, deciding on hospitalization is equally challenging when family members have different perspectives. Family counselling sessions provide a platform for discussing concerns, understanding each other's viewpoints, and reaching a consensus on critical decisions such as hospitalization. On a similar note, Ryan et al. (2020) also supported that, family members as well suffer psychologically when they get the news about their member diagnosed with cancer. Mystakidou et al. (2020) demonstrated, counselling the family was needful to enable them cope with the news of the diagnosis. The researchers further found out that, family counseling improved the family members' viewpoints regarding cancer patient's care. This is by providing cancer information on chemotherapy, hospital admissions, and decision-making about their future. Such findings underscore the need to strengthen family counseling through home visits, focusing on communication among family members and the need for collective decision-making.

In addition, family counselling was also considered as an avenue for promoting family harmony as stated by clinician 05 who noted, *"Disagreements among family members can add stress to an already challenging situation".* However, a well-executed family counselling, *"promotes understanding and agreement, fostering an environment where family members can work together harmoniously to support the patient"* – clinician 03. The aspect of acceptance also featured prominently during interview session with clinicians.

Clinician 01 said, *"Acceptance is a key aspect of coping with a cancer diagnosis".* Another clinician number 04 concurred saying, *"Family counselling helps family members navigate their own emotional reactions and biases, promoting acceptance of the patient's condition".* This acceptance is vital for creating a positive and supportive atmosphere. In support, Ojewole (2018) also noted that, the case of illnesses among any family member, make them become anxious and psychologically distressed due to insufficient information on how to take care of their ill family member. Family counselling was found to be a noble invention for family member's acceptance of the disease, support to manage the disease and emotional well-being (Ojewole, 2018). Therefore, this implicates on strengthening family counselling interventions.

Preparedness for challenging outcomes encompasses costly cancer treatment and potential loss of life. Notably, the financial implications of cancer treatment can be a significant source of stress. Family counselling therefore, *"Assists families in planning for expensive treatments by exploring financial resources, assistance programs, and potential cost- cutting measures"* – clinician 04. Clinician 05 supported the crucial role of family counselling saying, *"It improves preparedness for worst outcomes such as expensive medicine, selling of family property and death"*. In agreement to the former clinician 02 clinician 05 said,

> *"The prospect of selling family property or facing the death of a loved one is emotionally challenging, family counselling helps families address these difficult topics, providing a space to discuss fears, express emotions, and develop coping strategies for potential worst-case scenarios".*

Table 4.19 further illustrates that stigmatization management is another issue that featured during interview. Clinicians who participated in the interview linked family counselling to reduction of stigma and improvement of stigmatization management. Clinicians said that **c**ancer patients and their families may face societal stigma, which can lead to isolation and discrimination. Family counselling educates families on how to address and reduce societal stigma (Oystacher et al., 2018). This may involve communication strategies, awareness campaigns, and building a supportive community.

Clinician 07 noted, *"Coping with stigma requires resilience and effective coping mechanisms".* Clinicians had a common opinion that family counselling plays a critical role in equipping families with strategies to manage and overcome societal stigma, fostering a sense of empowerment, and reducing the negative influence on the patient's mental health.

Clinicians and CPs were asked to suggest how family counselling can be improved at oncology clinics to enhance the PWB of cancer patients. Several suggestions were received and analyzed thematically resulting few themes that included comprehensive involvement of family, patient-centered counselling, training and competency development, continuous improvement and standardization, education and awareness for families, practical support for patients, information management, and empowering family members.

The theme on comprehensive involvement of family emphasizes the importance of involving all close nuclear members in the counselling process. This is supported by clinicians responses such as *"Involve all close nuclear members", "involve the patient and close family members during counselling", "involve few family members who support the patient"*. This approach hastens psychological support system, fosters better communication and understanding among family members, and acknowledges the shared experience of coping with cancer, reducing feelings of isolation for both the patient and their family. Similar approaches of involvement were also recommended by Kissane et al. (2016) that, counseled nuclear members displayed improvement in how they treat their sick person in terms of efficient communication and cooperation and supportive care to develop a treatment road map that positively influences the treatment outcome of their cancer patient. The results therefore, imply the need to involve all close nuclear family members in order to achieve this kind of support.

Patient-centered counselling places the patient at the center of the counselling process. It is supported by *s suggestions such as* “Patient should be present during family counselling”, “involve the patient together with close family members during counselling”. Patients may feel more empowered and in control of their situation when actively participating in counselling sessions. Similarly, Kissane et al. (2016) discovered that, the presence of patient during family counseling reduced the feelings of isolation for both the patient and their family. In agreement with the person-centered theory, which emphasized working closely and listening keenly to the patient is a concept that nurtures the advancement of a working alliance with the patient, preparing the ground for therapeutic change hence effectiveness. This approach can lead to improved coping mechanisms and a sense of agency, positively influencing their psychological state and overall well-being. This points on the need to integrate patient-centered counseling approach during family counseling.

The theme about training and competency development addresses the competence of psychotherapists and family counselors. It is supported by several suggestions from participants; “Train the psychotherapist in charge of conducting family counselling”, “employ qualified personnel and ensure competency development for in-service therapists” and “family counselors, train available counselors”.

Training psychotherapists and family counselors in oncology-specific counselling techniques ensures they possess the necessary skills to address the unique challenges faced by cancer patients and their families. This can contribute to a more positive counselling experience for families, leading to better psychological outcomes for patients. With regard to the presented findings, Ferrara et al. (2022) also noted the necessity of oncology clinics investing on human resource management practices such as staff motivation and professional development and training so as to reaching efficiency in cancer care. Notably, the current study is challenged to strengthen their recruitment policies to employ qualified personnel and also implement staff professional development planning to ensure competency for in-service clinicians and caregivers.

Continuous improvement and standardization also emerged a critical theme. It is supported by statement, *“Always update Standard Operating Procedures (SOPs)”* This theme reflects a commitment to adapting counselling practices based on evolving research and best practices in psycho-oncology. The practice is meant to enhance the quality and consistency of counselling services, and can instill confidence in patients and their families, knowing that they are receiving the latest and most effective support available. Mak et al. (2016) also presented converging results noting the essence of quality and continuous service improvement at oncology clinics. Mak et al. illustrated that, continuous quality service improvement program was necessary towards efficiencies of counseling services at oncology clinics. The current study is challenged to adopt continuous improvement and standardization strategies when offering psychosocial interventions to cancer patients.

Another aspect of improvement was on education and awareness for families which was supported by suggestions that included, *"*Offer booklets on cancer aspects to the family for awareness", and "provide learning materials to the family members about the disease". Providing educational materials to families that have a cancer patient increases their understanding of cancer-related issues, treatment options, and potential challenges. Notably, an informed families are better equipped to providing emotional and practical support to the patient. This can lead to reduced anxiety and uncertainty, contributing to improved psychological well-being for both the patient and their family members. In agreement, Almeshari et al. (2023) studied the influence of educating the community on breast cancer among women in Saudi Arabia. Closely educational and reaching out mechanisms such as special awareness programs, mass movement campaigns, television programs, radio, social media platforms and fliers were the major educational media utilized to dispense information about cancer care and management. Basically, the findings hinge the needfulness of creating awareness to the society. Suggested mechanism include: offering booklets, provide learning materials and providing educational materials to families.

Enhancing practical support for patients was termed critical by clinicians and cancer patients. *This theme was supported by suggestions that included; "*Have home visits to patients and carry them shopping and basic incentives", "do home visits to cancer patients", "have frequent family counselling sessions", and "do home-based counselling". In essence, practical assistance can alleviate stressors related to daily living, allowing patients to focus on their emotional well-being. This holistic approach acknowledges the interconnectedness of physical and psychological health of cancer patients. In agreement, Banerjee (2009) assessed the effectiveness of home care by palliative care givers and found that, home visits improved family support, reduced stigma, and encouraged the patient, promoted resilience, medical support, financial support and material support. The consensus in the two ets of results stress the need for strengthening home care visits. Moreover, the results implicate on the effectiveness of homecare visits which can be achieved by having official home care programs with employed counselors, nurses and funding for the project.

The aspect of managing information flow among family members featured as a critical area of improvement. *It is supported by suggestions such as, "*Do not give very detailed information to family members", "give family members more information about the disease on survivorship, insurance, communication with the patient, and follow-ups". The theme is about balancing transparency with the need to avoid overwhelming details. Clinician 04 remarked, *"Striking the right balance ensures that family members are informed without being burdened by excessive information".* This can contribute to a supportive family environment where open communication is maintained, positively influencing the patient's psychological well-being. Similarly, Gritti (2015) emphasized that during family counselling, the counselor need to focus more on family communications, family support and participation in decision-making. In line with the presented findings, the results emphasize the need for family communication, insurance, survivorship and tailor-made information regarding the disease and how to manage it.

The last identified theme was about empowering family member, which aims at equipping family members with knowledge and skills. It is supported by statement from patients and clinicians, ‘‘Equip family members with knowledge to identify if their patient is in stress and basic skills to counsel them at home”. Empowered family members can actively contribute to the patient's emotional well-being. They become partners in the care process, fostering a sense of shared responsibility and mutual support within the family unit. The suggestions received and the resulting themes have pointed out improvement areas that include creating a supportive environment that addresses the emotional, practical, and informational needs of both the patient and their family, ultimately contributing to a more positive cancer care experience. The results revealed agree with those of Gritti (2015) in Iran who noted the potential home members counselling played in managing their patients, enhancing QoL, identifying problems, acceptance and resilience to deal with uncertainties arising every day. In doing so, family members were reported to be collaborating effectively with clinicians hence improved resilience in their sick member. The results up emphasis on the need to educate home care givers. Important aspects needful to be learnt range from ability to read the mood of the patient, how to take medication and manage the disease.

4.9.4 Convergence of quantitative and qualitative on Family Counselling of Cancer Patients

Both the quantitative and qualitative findings shed light on various aspects of family counselling for cancer patients, revealing several converging points. One prominent area of convergence is the positive influence on family support and involvement. The quantitative results indicate increased engagement in discussions about dietary considerations and medications, while the qualitative insights emphasize the importance of comprehensive well-being, encompassing emotional, social, nutritional, financial, and spiritual dimensions. This convergence underscores the need for personalized approaches that address the diverse dimensions of family support. Other studies exist which have noted the positive influence of family counselling on PWB of Cps. For instance, Sackett and Cook (2022) and Ojewole (2018) found that, family counselling empowers family members with the knowledge about medical issues and skills to aid in caring for the sick family member. In agreement, the person centered theory also believed that, when a therapist provides a conducive environment, individuals are able to reflect on their inner thoughts, emotions, and perceptions may result in insights into their resource activation, problem actuation, emotional bond, goals and tasks, fear, and clarification of meaning. Family counseling therefore has the potential to influence family members reasoning and discovery to solve their confronting needs. These results pose implications on the need to strengthen family counseling practices such as prioritizing the patient during family counselling, doing home visits, repacking information suitable to be known to family members and emphasizing on survivorship, communication and insurance.

Improved communication and understanding emerge as another converging point. Quantitative data indicates a positive influence on communication, corroborated by qualitative findings stressing the creation of a safe and supportive environment during counselling sessions. This highlights the significance of tailoring communication interventions to individual needs, fostering an atmosphere where all family members feel heard and understood. Ehrbar et al. (2022) also reported the benefits associated with communication in counseling. It was advised that, effective communication ensured privacy, opening up, remarkable improvement in household intercommunication, decision- making, participation and fulfillment as a result of the counseling. This implicates on the necessity to improve communication.

Empowerment and informed decision-making are common threads across both sets of findings. Positive perceptions regarding adherence to treatment, informed decision-making, and empowerment through family counselling are echoed in both quantitative and qualitative data. This convergence underscores the importance of recognizing diverse attitudes towards empowerment and decision-making, emphasizing the need for tailored counselling sessions and comprehensive information. Reduced stigma and improved relationships emerge as a shared theme. Moderate agreement on statements related to reduced stigma, improved family attachment, and enhanced love and care at home align with qualitative insights emphasizing family counselling's role in addressing societal stigmas. The implications underscore the need for a holistic approach, including personalized interventions and open communication, to foster a supportive home environment.

Coping, problem-solving, and trauma management are outright convergent points, with positive responses in both quantitative and qualitative domains. The findings stress the importance of incorporating diverse coping mechanisms into counselling strategies and tailoring interventions to address specific challenges faced by families. Consistent family counselling sessions are perceived positively, indicating the importance of ongoing support. The convergence suggests that while consistent sessions are beneficial for a majority, flexibility is essential, acknowledging that the frequency of counselling may not suit everyone equally. This calls for personalized strategies and continuous communication to ensure families receive consistent and tailored support throughout their cancer journey.

4.10 Support Groups and the Psychological Well-Being of Cancer Patients

The third objective aimed to determine the influence of support groups on enhancing the PWB of CPs receiving care at oncology clinics in Meru County. By investigating the influence of support groups, the goal was to uncover how collective participation and shared experiences within these groups contribute to the emotional resilience and mental well-being of cancer patients. Recognizing the potential of peer support, this investigation was key to identifying the ways in which support groups play a vital role in fostering a sense of community, understanding, and coping strategies among individuals facing cancer in Meru County.

4.10.1 Descriptive Statistics Findings on Support group for Cancer Patients

The support groups counselling was first measured quantitatively by posing several statements to the respondents based on identified indicators, requiring them to rate each statement accordingly. The aspects covered were about improvement in working relationships, facilitation of shared health and emotional experiences, stigma reduction, guidance and counselling support, holistic well-being, privacy concerns, and problem-solving through participation. The rating scale was: Very Important = 3, somewhat important = 2, slightly important = 1, and Not at all important = 0. This is articulated in Table 4.20.

Table 4. 20

Descriptive Statistics Findings on Support group for Cancer Patients

No.	Statements on support group (N = 277)	Very Important	Somewhat important	Slightly important	Not at all important	Mean	Std. Dev.
i.	The use of support groups improves working relationship with my caregiver and family members	158(57.0%)	48(17.3%)	39(14.1%)	32(11.6%)	2.20	1.067
ii.	The use of support groups improve my ability to share my health and emotional experiences	90(32.5%)	115(41.5%)	38(13.7%)	34(12.3%)	1.94	.976
iii.	The utilization of support groups improves stigma reduction	92(33.2%)	75(27.1%)	87(31.4%)	23(8.3%)	1.85	.980
iv.	I belong to a support group which guide, counsel and encourage me on matters related to cancer	87(31.4%)	109(39.4%)	32(11.6%)	49(17.7%)	1.84	1.057

No.	Statements on support group (N = 277)	Very Important	Somewhat important	Slightly important	Not at all important	Mean	Std. Dev.
v.	Since I joined a support group, I have attained physical, emotional and spiritual stability	111(40.1%)	102(36.8%)	32(11.6%)	32(11.6%)	2.05	.989
vi.	Participating in a support group interaction does not interfere with my privacy and confidentiality	122(44.0%)	83(30.0%)	22(7.9%)	50(18.1%)	2.00	1.116
vii.	My participation in a support group opens up my mind to find appropriate solutions to problems	65(23.5%)	72(26.0%)	88(31.8%)	52(18.8%)	1.54	1.047

A majority of cancer patient participants considered the enhancement of working relationships with caregivers and family members through support groups as 'Very Important' (f = 158, 57.0%). This underscores the pivotal role of support groups in strengthening familial bonds during the challenging period of cancer treatment. A significant portion found it 'Somewhat Important' (f = 48, 17.3%), while 'Slightly Important' (f = 39, 14.1%) and 'Not at All Important' (f = 32, 11.6%) received relatively lower frequencies, showcasing varying degrees of significance. A mean of 2.20, suggested a strong overall endorsement of the importance of support groups in strengthening familial bonds, while the low standard deviation (1.067) indicates a consensus in participants' responses. The result emphasizes on crucial role of support groups in fostering positive familial dynamics for comprehensive cancer care. This means that oncology clinics should consider integrating family-focused support services to enhance the overall well-being of patients and their support networks.

The facilitation of sharing health and emotional experiences was perceived as 'Very Important' by 90 (32.5%) cancer patients, while majority considered it 'Somewhat Important' (f = 115, 41.5%), indicating a prevalent positive perception of the role of support groups in fostering shared experiences. On the other hand, 'slightly important' and 'not at all important recorded low frequencies at 38 (13.7%) and 34 (12.3%) respectively, illustrating individual differences in the value attributed to this aspect. The moderate mean (M = 1.94) indicates a positive perception, and the relatively low standard deviation (SD = 0.976) suggests a high degree of agreement in the responses. In agreement with these findings, Antonia (2014) resolved that, support group meetings enabled members to share thoughts and experiences on how to deal with various issues surrounding them. Therefore, support groups were considered as very important.

Although support groups are expected to be firm in facilitating a shared health and emotional experiences by providing a platform for patients to share their journeys, fostering a sense of understanding and connection, the cancer patients’ respondents view this aspect as 'Somewhat Important'. Okwor et al. (2018) opined that creating avenues for shared experiences within support groups is vital for building a supportive community. This indicate a notable gap; hence, oncology clinics should ensure that their cancer care programs prioritize activities that encourage the exchange of health and emotional experiences to enhance the emotional well-being of participants. These findings differ substantially with those documented by Cipolletta et al. (2017), in Italy, who found that participating in a cancer support group improved patient survival rates, quality of life, boosts self-esteem, competence, responsibility, enhances the capabilities of group members, and comfort coming by shared health and emotional experiences. In line with the current results, it is clear that oncology clinics have not invested on programs that encourage the exchange of health and emotional experiences among cancer patients. Therefore, the results implicates on developing such programs in order to achieve emotional and social well-being of cancer patients.

Regarding the role of support groups in stigma reduction, 'Very Important' and 'Slightly Important' were the predominant responses as reported by 92 (33.2%) and 87(31.4%) respectively. 'Somewhat Important' (f = 75, 27.1%) and 'Not at All Important' (f = 23, 8.3%) received lower frequencies, (M = 1.85, SD = 0.980). The mean suggests a collective recognition of the importance of support groups in addressing societal stigma associated with cancer. The standard deviation indicates some variability in attitudes toward this dimension. The findings reflect diverse attitudes within the study cohort toward the societal challenges associated with cancer. This gap can be addressed through education and awareness programs within support groups. As presented, the situation presented here contradict with the findings of Tehrani et al. (2011) which underscored that, support groups critically played a role towards helping patients fight stigma, overcome the fear of death and an unknown future. The moderate means on the perceived importance of support groups on stigma reduction when compared with the discussed findings notify that, awareness and education about cancer diseases need to be implemented or strengthened if existing.

Support group primarily provide emotional support, fostering a sense of community to cancer patients. While support group members may not be trained psychologists, they offer unique perspectives and empathy that can be immensely valuable in combating stigma. This can be achieved by offering a safe space where individuals can share their experiences without judgment. Being among others who understand what they're going through helps patients feel validated and less isolated, reducing the impact of stigma.

Moreover, through interactions within the support group, patients come to realize that they are not alone in their struggles. Hearing stories from others who have faced similar challenges helps normalize the cancer experience, diminishing feelings of shame or embarrassment that may be associated with the disease. Notably, support groups provide a platform for members to educate one another about cancer, its treatments, and its effects. By sharing accurate information and personal experiences, participants can debunk myths and misconceptions surrounding the disease, thereby reducing stigma in their communities. By sharing their stories and participating in discussions, an individual cancer patient can challenge stereotypes and advocate for themselves, ultimately reducing the stigma associated with cancer. It is also worth noting that support groups can mobilize their members to advocate for policies and initiatives aimed at reducing cancer-related stigma in society.

Belonging to a support group that provides guidance and counselling was perceived as 'Very Important' by 87(31.4%). 'Somewhat Important' (f = 109, 39.4%) constituted the largest group, emphasizing the crucial role of emotional support and counselling in cancer care. 'Slightly Important' (f = 32, 11.6%) and 'Not at All Important' (f = 49, 17.7%) received lower frequencies. (M = 1.84, SD = 1.057). The moderate mean suggests a collective acknowledgment of the importance of emotional support, while the standard deviation indicates negligible variability in attitudes within the study cohort. However, the fact that the majority of cancer patients view belonging to a support group that provides guidance and counselling as 'Somewhat Important' indicate a notable reservations. Probably, the benefits of the same had not been utilized or realized to fullness indicating rooms for improvement. To address this gap, oncology clinics should ensure that support groups and cancer patients have access to trained facilitators to address the diverse emotional needs of participants. These findings acknowledge the perceived importance of support groups in giving guidance and counseling. Similar, in the findings observed by Tiirora et al. (2021) which established that, being in an support group encouraged, strengthened, guided, equipped, provided a shoulder to lean on, offered psychosocial support, rehabilitation and financial counseling. Given the many benefits associated by participation in a support group, the benefits of the same may be extended to the study findings by strengthening support groups with information resources, qualified palliative care staff and meeting the emotional needs of the patients.

In this hand, participants attributed their physical, emotional, and spiritual stability to support group participation, with 'Very Important' (f = 111, 40.1%) being the predominant response. On the other hand, 'Somewhat Important' constituted majority at 102 (36.8%), highlighting the holistic benefits of support groups. 'Slightly Important' (f = 32, 11.6%) and 'Not at All Important' (f = 32, 11.6%) received lower frequencies, (M = 2.05, SD = 0.989). The relatively high mean suggests a strong overall endorsement of the holistic benefits of support group participation, with a low standard deviation indicating a high degree of consensus. The balanced distribution across importance levels suggests a holistic influence of support groups. Therefore, oncology clinics should ensure comprehensive cancer care programs recognize and promote the multi-dimensional benefits of support group participation, and integrate these aspects into the overall treatment plan. The multi- dimensional contribution of support groups to cancer patients was also highlighted by Santarelli et al. (2021) found out that, belonging to a cancer support group enhanced social, emotional, health, physical, educational increased understanding of the cancer disease and a voluntarily opportunity to help other cancer patients or caregivers. As agreed in both studies, the few dissenting opinions in the presented findings provide a room for improvement. This may be attained by oncology clinics introducing comprehensive support programs which care for physical, spiritual, emotional, health, social and mental well-being of cancer patients.

Privacy concerns during support group interactions were deemed 'Very Important' by the majority 122(44.0%) cancer patients while 'Somewhat Important' 83 (30.0%) constituted a considerable portion, indicating a balanced perspective on the level of privacy maintained. 'Slightly Important' and 'Not at All Important' received lower frequencies at 22 (7.9%) and 50 (18.1%) respectively. This indicates individual differences in the value attributed to privacy concerns. The moderate mean of 2.00, reflects a moderate level of importance, while the standard deviation of 1.116 suggests some variability in attitudes toward privacy concerns within the study cohort. The results mean that most cancer patients expressed satisfaction with the level of privacy maintained in the support groups. This reinforces the importance of creating a confidential and secure environment within support groups, promoting open communication and trust. In support, Im et al. (2007) reported that, majority of cancer patients who were participants in support groups expressed security, privacy safeguarding anonymity and confidentiality concerns. Although patients had positive attitudes towards support groups, their opening up and participation was majorly hindered privacy concerns. This solidify the critical need to ensure privacy and confidentiality within support groups. The implications are that oncology clinics should implement robust privacy policies and practices to address the concerns of participants, fostering a secure environment for open communication.

A minority cancer patients felt that support group participation opens up their mind to finding solutions to problems ('Very Important': f = 65, 23.5%). A lower mean (1.54) suggests that fewer participants strongly feel that support group participation opens up their mind to finding solutions to problems. The majority felt ‘Slightly Important' (f = 88, 31.8%)' followed by those who felt ‘Somewhat Important' (f = 72, 26.0%), and 'Not at All Important' (f = 52, 18.8%) respectively. (M = 1.54, SD = 1.047). The standard deviation indicates variability in attitudes toward this aspect. The result show a fifth felt 'Not at All Important'. This means that 18.8% of cancer patients do not see any value of their participation in a support group finding appropriate solutions to problems. There misses a direct study which determines the influence of support groups on problem solving among cancer patients. However, a closer study carried out by Jablotschkin et al. (2022) outlined the benefits of participating in a support group including: informational, emotional, financial and social support like humor which all helped patients to cope with the demands of the disease, thus in a way contributing towards solving some of their problems. These findings reveal a conspicuous gap pointing room for improvement. While support groups may not universally be perceived as a primary source for problem-solving, exploring and addressing individual needs for practical solutions within these groups could enhance their effectiveness.

The findings reveal the diverse nature of cancer patients' experiences with support groups, emphasizing the need for personalized interventions. Nevertheless, the patients overall perception of support group was at a moderate level of importance. Oncology clinics should integrate diverse support elements, including familial relationships, shared experiences, stigma reduction efforts, guidance and counselling, holistic well-being considerations, and privacy safeguards to optimize the influence of support groups on patients' psychological well-being.

4.10.2 Inferential Statistical Findings on Support Group for Cancer Patients

An inferential statistical analysis was conducted to answer research question three which was: What is the influence of support groups on enhancing the PWB of CPs receiving care at oncology clinics in Meru County? In answering this research question, a Pearson correlation statistical analysis was conducted and results are shown in Table 4.21.

Table 4. 21

Correlations between support group and the PWB of cancer patients

		Y	X3
Y	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	277	
X3	Pearson Correlation	.361	1
	Sig. (2-tailed)	.000	
	N	277	277

Table 4.21 indicates that support group had a positive and statistically significant relationship with psychological well-being of cancer patients (r = .361, p = .000<.05). The results mean that a change in support group triggers a change in PWB of CPs in the same direction. Consequently, the study conclude that support group significantly affect PWB of CPs in oncology clinics in Meru County, Kenya. In concurrence, the presented results agree with those of a study conducted in Asia by Chou et al. (2015). Chou et al. explored the influence of support groups on PWB among breast CPs and found the existence of a positive significance between them. Moreover, the social cognitive theory linked social factors, human behaviour and environmental interactions to bring change. These agrees very well with the notion that, psychosocial interventions when applied to cancer patients, tends to improve their PWB by changing their thinking and decisions. This, expresses the critical contribution support groups play in enhancing the PWB of CPs Therefore, this suggests that oncology clinics in Meru County need to develop

support group programs which aim at educating, equipping, coping and enhancing the livelihoods of cancer patients in the county.

4.10.3 Qualitative Findings on Support Groups for Cancer Patients

Clinicians were asked during interviews to share their experiences and comments regarding cancer patients who attend support groups to improve their psychological well-being. Their observations indicated that support groups create a space for shared experiences, collaboration, and the exchange of information, contributing significantly to the overall well-being of individuals facing cancer. This was evidenced in their responses which highlighted five themes; that is, peer inspiration and encouragement, financial and practical support, psychological and emotional benefits, collaborative solutions to financial burdens, spiritual support and environmental support and information sharing. These themes are briefly discussed below.

Clinicians highlighted the positive influence of using patients who have successfully healed from cancer as motivational figures within support groups. According to clinician 03, *"survivor narratives acts as catalysts for inspiration and encouragement"*. Notably, the presence of individuals who have triumphed over the disease serves to instill hope and determination within group members. This peer-driven motivation is a powerful force in fostering a positive outlook and resilience among those grappling with the challenges of cancer (Santarelli, 2021). Beyond emotional support, clinicians noted that support groups extend tangible assistance to patients. Examples include financial aid, incentives like food, and practical items such as colostomy bags. Provision of this support contribute to alleviation of both emotional distress and practical difficulties. In agreement, a research done in Northern Italy by Cipolletta et al. (2017)

found out that, participating in a cancer support group improves survival rates, quality of life, boosts self-esteem, competence, responsibility, enhances the capabilities of group members, improved social, physical, and financial assistance given to patients battling cancer. Noting the agreement in the engagement in a support groups, the results suggest that oncology clinics in Meru County to develop support group programs which aim at educating, equipping, coping and enhancing the livelihoods of cancer patients in the county. Moreover, collaborating and partnering with the government, NGOs, FBOs and charitable bodies in the support groups is also necessary for effective financial and material help.

Further, clinicians highlighted the psychological and emotional benefits derived from open sharing of experiences within support groups. These interactions as noted by clinician 05, contribute significantly to the enhancement of acceptance, belongingness, self-worth, self- esteem, and self-love among members. It also contributes to stigma reduction. Shiri et al. (2020) agreeing with this noted that the communal dialogue within support groups serves as a powerful tool in challenging and diminishing the societal stigma attached to cancer. Consequently, fostering a more inclusive and understanding environment. Sharing of experiences among cancer patients improves acceptance, belongingness, self-worth, self- esteem, and self-love and contributes to stigma reduction. This implicates in designing public sharing platforms in the support groups which aim to both empower the infected person as well as creating awareness about cancer hence reduce stigma to the society.

Additionally, support groups, often described using terms like "chamas" and "merry-go-rounds," are lauded by clinicians for their role in fostering collaboration among members. Clinician 03 note, *"Support groups helps improve collaboration hence solve or relieve financial burdens in cancer treatment and management".* This means that within the groups collaboration extends beyond emotional support to encompass practical problem- solving, collectively addressing and alleviating the financial burdens associated with cancer treatment and management. The clinician 06 further observed that collaborative nature of these groups provides a unique and effective approach to mitigating the financial challenges faced by cancer patients. Alternative opinions on how support groups solved financial burdens for cancer care and management were examined by Coughlin et al. (2021). Unlike in the presented results which showed practical engagement in solving financial issues surrounding patients' through merry-go-round, Coughlin et al. identified that support groups solved financial issues through financial assistance from charitable organizations, financial education such as finding co-payment assistance for high-cost drugs, navigating health insurance plans and financial counseling. Therefore, Meru county oncology clinics may organize repackaged seminars to counsel patients on financial management, revenue sources for cancer management and collaborate with charitable bodies to get grants and other means of financial aid.

In recognizing the holistic nature of well-being, clinicians draw attention to the spiritual support offered within cancer support groups. The environment created within these groups is considered crucial for the healing process. In support groups, members find solace and strength through spiritual support, emphasizing that the journey through cancer is multifaceted and requires a comprehensive approach that goes beyond the physical and emotional realms (Kelly et al., 2019). Clinicians also emphasized the role of support groups in facilitating the sharing of crucial information related to cancer. The absence of such groups is identified as a gap, pointing to a need for these supportive environments where information can be exchanged effectively.

Caregivers were asked to discuss the influence of support group in enhancing the PWB of CPs. The discussion featured several issues which included: medical assistance and fundraising, patient expressions, experience sharing, and awareness; reduction of stigmatization, emotional support, coping and acceptance, and handling side effects through education. The interpretation and implications of these themes are briefly discussed below.

The comments noted from caregivers underscore the importance of having active, well-funded support groups with donors. The discussion noted, when support groups are financially viable, they provide significant medical assistance through fundraising efforts. This financial aid is instrumental in alleviating the burden of medical expenses, ensuring that patients have access to necessary treatments and resources. The theme here centers on the tangible and practical support that a well-supported group can offer to cancer patients. Support groups are acknowledged as environments that facilitate increased patient expressions, experience sharing and heightened awareness. The expanded conversations within support groups not only allows cancer patients to express their thoughts and emotions but also fosters a sense of community. This open sharing contributes to addressing feelings of loneliness, depression, stigma, and inferiority, thereby promoting a more positive psychological state. The stated concerns were also featured in the results of Coughlin et al. (2021) that, support groups were majorly created to achieve the following missions: informational empowerment, stigma reduction, emotional intelligence, financial education and provision, awareness creation and social support. Noting these purposes of the support groups, Meru County oncology clinics ought to strengthen their support groups or guide patients to join groups with holistic programs to cancer management. Doing this will influence patients emotional, physical, spiritual, financial, informational and quality of life well-being.

One of the critical themes that emerged from the caregivers' discussion is the role of support groups in reducing stigmatization associated with diseases. By providing a platform for sharing experiences and understanding, these groups contribute significantly to changing societal perceptions and dismantling stereotypes surrounding illnesses. This reduction in stigmatization positively influences the PWB od CPs by fostering a more supportive and empathetic environment. Supporting these findings, Shiri et al. (2020) documented that, CPs found acceptance, belongingness, self-worth and self-esteem in support groups. These were considered as important contributors to stigma reduction. Shiri et al. (2020) also agreed communal engagement within support groups serves as a powerful tool in challenging and diminishing the societal stigma attached to cancer. To this study, the results implicate the need to offer comprehensive and friendly programs which nurture patients a holistic approach to cancer management including promotion of de-stigmatization.

The caregivers emphasized the influence of support groups in providing emotional support to patients. They argued that support group setting allows individuals to connect on a deep emotional level, sharing their struggles and triumphs. This emotional support is identified as a vital component in enhancing the psychological resilience of patients, creating a sense of belonging and understanding that goes beyond medical treatments. Support groups were further identified by caregivers as instrumental in fostering easy coping mechanisms and acceptance. FGD noted that shared experiences and encouragement within support group, help patients develop strategies to cope with various challenges posed by cancer condition. This theme supports the transformative spaces where individuals can come to terms with their situations and find acceptance, leading to improved psychological well-being. The influence of support groups especially on the emotional state of cancer patients was also reported in Northern Italy by Cipolletta et al. (2017). Cipolletta and his collegues (2017) documented that, participating in a cancer support group encouraged patients to share their frustration hence improves survival rates, quality of life, boosts self-esteem, competence, responsibility, improved social, physical, and financial assistance given to patients battling cancer. Therefore, noting the deplorable establishment of support groups in Meru County oncology clinics, further the results advocate for establishment of the same to provide extra healing and cancer management mechanisms apart from medical treatment.

Caregivers highlighted the role of support groups in providing valuable education on handling and dealing with the side effects of drugs. Talks, seminars, and survivor testimonies become essential components of this educational process. Cancer patients who gain knowledge and insights gained from support group platforms, are better equipped to navigate and manage the side effects of their medications, contributing to an overall improvement in their psychological well-being. In support to the findings, Jablotschkin et al. (2022) had earlier outlined that participating in a support group provided informational, emotional, financial and social support including humor which all helped patients to cope with the demands of the disease. Moreover, patient empowerment on financial management, how to cope with the disease and testimonies from survivors were reported to contribute social and psychological wellness. These findings reveal a notable need to improve oncology clinics by implementing active and holistic approach in support group programs.

Clinicians at oncology clinics and cancer patients were asked to suggest how support group counselling can be improved to enhance the PWB of CPs. Several suggestions were received from both target groups through interview and open- ended questions. The statements received were transcribed into 26 statements. These statements were deductively grouped into 10 sub-themes, and then categorized into distinct themes, as shown in Table 4.22.

Table 4. 22

Suggestion for enhancing support group counselling for cancer patients

No.	Statements on improvements	Sub-themes	Themes
1.	• Create awareness and sensitization on the available support groups and its importance	Educate about available support groups	Awareness and sensitization
2.	• Develop a support group • Start a support group • Each Level Five hospital in Meru County to have a support group in the oncology clinics.	Initiating new groups	support group development
3.	• Have incentive programs such as food and nutrition lessons. • How to deal with anxieties and depression during support group meetings.	Practical support and education	Incentive programs and education
4.	• Choose leaders and start projects within support groups. • Leaders among the cancer patients themselves.	Empowering support group members	Leadership and projects
5.	• Let patients who have healed from the disease share testimonies in order to encourage sick people under medication.	Inspirational narratives	Survivor testimonies
6.	• Create an emphatic environment that is non-judgmental to patients participating in a support group	Fostering supportive atmosphere	Emphatic and non-judgmental environment
7.	• Always handle relevant topics on medicine, depression, anxiety, communication skills, nutrition, and mental health	informative discussions	relevant topics and education

No.	Statements on improvements	Sub-themes	Themes
8.	• Clinical days be integrated with support group meetings to assess the progress of cancer patients	Comprehensive patient assessment	Integration with clinical assessments
9.	• Link support groups to NGOs, FBOs, and other non-governmental firms for training, education, incentives, and financial assistance	External support and resources	Collaboration with external entities
10.	• Incorporate other departments to improve their care because cancer patients have other conditions such as pressure and diabetes	Coordinated healthcare	Holistic care

Table 4.22 summarizes the following 4 themes: support group infrastructure and development, patient awareness and education, practical and emotional support, and integration with clinical assessments.

The results from clinicians and cancer patients indicate that: Out of the ten broad themes, the study re-categorized and re-grouped them culminating into four themes categories. These are: support group infrastructure and development, empowering support group dynamics, holistic approach to patient care, creating supportive environments, and collaboration for enhanced resources. A brief discussion of the 4 themes is provided hereunto. The necessity of empowering support groups for cancer patients in Africa was also recognized by Lekeka in 2023. Some of the noted dimensions for enriching the groups highlighted by Lekeka include; employment of specialized personnel such as religious leaders, nurses, clinicians and palliative care workers. Others were: collaboration with cancer patient voluntary training consultancy, resource and facility development and collaboration with financial aid organizations. The above findings elaborate the existence of gaps in Africa and Meru County in general. Hence, to experience the benefits of support groups, oncology clinics ought to develop infrastructure, collaborate with specialized service providers, and hire adequate specialized staff and engagee holistic approach to patient care and support. This has implications on funding for oncology clinics.

Establishment and development of support groups is a key step to enhancing the role of support group in enhancing the psychological well-being of cancer patients in oncology clinics. This can be achieved by initiating and creating accessible and localized support structures. Empowering support group members also emerged as a crucial aspect, encompassing leadership roles, projects, and survivor testimonies. This can be realized by selecting support group leaders—either from within the patient community or appointing them—and initiating projects, to create a sense of ownership, and active participation among support group members. Regarding establishment of support group, clinician 05 urged "*each level four health facilities in Meru County should have a support groups in the oncology clinics.*" Another way for empowering support group is by collocating survivor testimonies. The survivor testimonies contribute a powerful and inspirational dimension, offering hope and encouragement to those currently undergoing treatment (Jablotschkin et al., 2022).

Adopting a holistic approach for patient care is emphasized through themes such as practical support, education, and the integration of clinical assessments. Appropriate strategy comprises incentive programs, including food and nutrition lessons, coupled with educational initiatives addressing anxieties and depression. Participants further noted that integrating clinical assessments with support group meetings ensures a more comprehensive understanding of patients' well-being, combining medical evaluations with emotional and social support. Holistic approach to cancer patient care including emotional well-being, physical well-being, financial well-being, resilience and informational empowerment among those grappling with the challenges of cancer was recognized by Santarelli (2021). This study therefore point out that, beyond emotional support, support groups need to extend tangible, informational, social, physical and informational assistance to patients.

Table 4.22 also demonstrate that fostering an empathic and non-judgmental environment within support groups emerged as a critical theme. By creating an atmosphere where patients can openly share their experiences without fear of judgment, support groups become a safe space for meaningful interactions. This emphasis on emotional safety is significant in building trust and encouraging individuals to actively participate in discussions about their health challenges. In support, Im et al. (2007) also reiterated the importance of creating a confidential and secure environment within support groups, promoting open communication and trust. This also is in line with the telnets of the person- centered theory by Rogers, that, unconditional positive regard entails establishing a client- centered environment that fosters their well-being and growth. Therefore, an environment of unconditional positive regard benefits the patient because they feel less frightened and can freely discuss their thoughts, emotions, and activities. Thus, oncology clinics in Meru County need to implement mechanisms which assure security, privacy safeguarding anonymity and confidentiality concerns of patients in respective support groups. This solidify the critical need to ensure conducive environment that foster privacy and confidentiality within support groups.

The fifth theme on how to support groups can be improved according to clinicians was collaboration. This collaborative effort expands training, education, and financial assistance including NGOs, FBOs; highlighting the interconnectedness of various stakeholders in providing comprehensive support to cancer patients. This theme underscores the importance of external support and resources in augmenting the effectiveness of support groups and ensuring a more robust and well-rounded approach to patient care. Notably, related strategies for solving cancer patient's financial distress enrolled in a support group were described by Coughlin et al. (2021) to include financial assistance from charitable organizations, financial education such as finding copayment assistance for high-cost drugs, navigating health insurance plans and financial counseling. This theme underscores the importance of external support and resources in augmenting the effectiveness of support groups and ensuring a more robust and well-rounded approach to patient care.

Other measures for enhancing support group in enhancing PWB of CPs is establishing and expanding the infrastructure for support groups. This involves creating new groups, ensuring the presence of support groups in healthcare facilities, and empowering patients by allowing them to take on leadership roles. In creating a supportive environment, clinician 04 advised, *"Incorporate other departments to improve their care because cancer patients have other conditions such as pressure and diabetes."*

Notably, the development of a robust support group network is crucial for ensuring accessibility and tailored assistance for cancer patients. Enhancing patients' awareness about available support groups and cultivating an empathic environment are crucial for building a supportive community. Participants noted that informative discussions championed by support groups, clinicians and psychologists on relevant topics, including medicine, mental health, and communication skills, contribute to patient education, and fathom a well-informed and empowered patient community. Lekeka (2023) study also agree with the results presented herein. Lekeka noted that, awareness creation to breast cancer patients on the need for joining a support group, support group collaboration with charitable bodies and special consultants, inclusive participation of spouse in the support group and an empathic environment promoted breast cancer from opening up are critical mechanisms for fostering support group experienced benefits. Participants also noted the importance of combining practical assistance, such as incentives and educational programs, with emotional support. Recognizing and addressing the broader health needs of cancer patients, including conditions like pressure and diabetes, ensures holistic care.

4.10.4 Convergence of quantitative and qualitative on support group for Cancer Patients

A prominent convergence across both sets of results is the recognition of the importance of familial relationships within support groups. Quantitatively, a majority of participants considered the enhancement of working relationships with caregivers and family members through support groups as 'Very Important.' Clinicians qualitatively emphasized the positive influence of support groups on overall well-being, highlighting peer-driven motivation and tangible assistance to patients, including familial support. This convergence underscores the significant role of family dynamics in the comprehensive care of cancer patients, emphasizing the need to strengthen familial bonds within support groups. In the same note, Lekeka (2023) reported that, the engagement of breast cancer patient’ spouses into the support groups was needful in securing emotional, financial, informational, medical and material support from the support group. Therefore, support group facilitators should strengthen family relationships as well as provide tangible aid to patients.

Another converging point revolves around the significance of shared experiences within support groups. Both quantitative and qualitative data highlight the positive perception of the role of support groups in fostering shared health and emotional experiences. Participants, both patients, and clinicians recognize the psychological and emotional benefits derived from open sharing of experiences within these groups. This convergence reinforces the importance of encouraging and facilitating shared experiences within support groups to contribute significantly to acceptance, belongingness, and the reduction of societal stigma associated with cancer. In agreement, the importance of support groups in fostering emotional well-being of cancer patients was featured in the results of Coughlin et al. (2021). They established that, support groups served the following purposes: informational empowerment, stigma reduction, emotional intelligence and social support. Noting these purposes of the support groups, Meru County oncology clinics ought to strengthen their support groups or guide patients to join groups with holistic programs to cancer management.

Stigma reduction emerges as a common theme, with participants in both the quantitative and qualitative studies acknowledging the role of support groups in addressing societal challenges associated with cancer stigma. While on the one hand the quantitative findings indicate a collective recognition of the importance of support groups in stigma reduction, on the other hand, clinicians qualitatively emphasize the powerful tool that communal dialogue within these groups provides in challenging and diminishing societal stigma. Consequently, the convergence calls for reinforcing educational and awareness programs within support groups to effectively address societal challenges associated with cancer- related stigma. Consequently, the situation presented here converge with the findings of Tehrani et al. (2011) which underscored that, support groups critically played a role towards helping patients fight stigma, overcome the fear of death and an unknown future. This underscores the critical roles support groups play hence the need for Meru County to develop and strengthen existing groups. Moreover, noting the contribution to stigma reduction, the results implicates in spreading the wings of support groups to community engagement and awareness.

The comprehensive benefits of support group participation, including guidance and counselling, holistic well-being, and spiritual support, resonate across both sets of results. Participants attribute their physical, emotional, and spiritual stability to support group participation, emphasizing the holistic influence of these groups. The importance of guidance and counselling within support groups is underscored by both quantitative and qualitative data. The convergence suggests that comprehensive cancer care programs should recognize and promote the multi-dimensional benefits of support group participation, integrating these aspects into the overall treatment plan.

Privacy concerns during support group interactions emerge as a shared consideration, with the majority deeming it 'Very Important' in the quantitative findings. Clinicians, qualitatively emphasize the importance of creating a confidential and secure environment within support groups. Notably, Ryan et al. (2020) also reinforced the importance of creating a confidential and secure environment within support groups, promoting open communication and trust. This is in line with the person-centered theory which considers a conducive environment as characterized by privacy. This ultimately establishes trust in the working relationship promoted patients to open up with ease. This convergence highlights the need for oncology clinics to implement robust privacy policies and practices, fostering a secure environment for open communication.

Challenges and areas for improvement are identified in both sets of results, emphasizing the importance of addressing individual needs for practical solutions within support groups. Suggestions from clinicians and cancer patients highlight themes such as creating awareness, developing support group infrastructure, empowerment, holistic care, and collaboration on resources. The convergence herein calls for prioritizing improvements in awareness, infrastructure, empowerment, and collaboration to enhance the overall effectiveness of support group counselling programs. Lekeka in 2023 findings also presented related improvement mechanisms in support groups for cancer patients. These included; employment of specialized personnel such as religious leaders, nurses, clinicians and palliative care workers. Others were: collaboration with cancer patient voluntary training consultancy, resource and facility development and collaboration with financial aid organizations. The presented findings indicate that, support groups at oncology clinics require to prioritize improvements in awareness, infrastructure, empowerment, and collaboration to enhance the overall effectiveness of support group counselling programs.

4.11 Psycho-education and the Psychological Well-Being of Cancer Patients

The fourth objective aimed to assess the influence of psycho-education on enhancing the PWB of CPs receiving care at oncology clinics in Meru County. By assessing the influence of psycho-education, this study aimed to uncover how providing informative and empowering resources could positively influence the mental health and coping mechanisms of individuals facing cancer. Understanding the role of education in promoting psychological well-being was therefore very vital in informing comprehensive support systems that empower patients with knowledge and coping strategies.

4.11.1 Descriptive Statistics Findings on Psycho-education of Cancer Patients

Cancer participants rated the statements posed to them on importance of cancer psycho-education received at oncology clinic. The statements were based on dimensions of psycho-education focusing on cancer illness, therapy, medication, self- awareness, diet and related aspect of cancer education. The rating scale was: Very important (VI) =3, Somewhat important (SI)=2, Slightly important (SI)=1, and Not important (NI)=0. The results were summarized and presented in Table 4.23.

Table 4. 23

Descriptive Statistics Findings on Psycho-education of Cancer Patients

No.	Statements on psycho-education (N = 277)	Not important	Slightly important	Somewhat important	Very Important	Mean	Std. Dev.
i.	Psycho-education on the nature of cancer illness	23(8.3%)	15(5.4%)	57(20.6%)	182(65.7%)	2.7	.925
ii.	Psycho-education on cancer therapy	16(5.8%)	27(9.7%)	49(17.7%)	185(66.8%)	2.7	.890
iii.	Philosophical education	5(1.8%)	42(15.2%)	55(19.9%)	175(63.2%)	2.7	.813
iv.	Psycho-education on using cancer medication	8(2.9%)	23(8.3%)	93(33.6%)	153(55.2%)	2.7	.764
v.	Psycho-education on how to find a purpose and hope for living	12(4.3%)	40(14.4%)	75(27.1%)	150(54.2%)	2.6	.875
vi.	Psycho-education on self-awareness	17(6.1%)	25(9.0%)	114(41.2%)	121(43.7%)	2.5	.852
vii.	Psycho-education on diet	20(7.2%)	22(7.9%)	71(25.6%)	164(59.2%)	2.6	.910

Table 4.23 indicates an observable consensus across various dimensions of psycho-education (aggregate mean 2.6). The findings show that a majority; that is, 182(65.7%) of cancer patients rated psycho-education on the nature of cancer illness as very important (M = 2.7, SD = 0.925). This signified that, demand for comprehensive information on the fundamental aspects of cancer can significantly contribute to their psychological well- being. Similarly, psycho-education on cancer therapy garnered substantial importance, with 185(66.8%) respondents rating it as very important. The mean score of 2.7 aligns with the perceived significance of this aspect of psycho-education. This emphasizes the value placed on knowledge about treatment options and

therapeutic approaches thus, suggesting a strong desire among individuals affected by cancer to be well-informed about their therapeutic journey. In support, Setyowibowo et al. (2022) presented a sense of benefit of psycho-education to patients with cancer. Specifically, the authors educated that, psycho- education informed cancer patient about the nature of the disease, the course, medication, and diagnosis and treatment regimes. Setyowibowo and colleagues thus concluded that concluded that, psycho-education improved self-acceptance, self-worth, patient awareness and quality of life. Noting the contribution of psycho-education on the psychological wellness of cancer patients, patients attending oncology clinics should be educated or given fliers, brochures to be equipped on the basics of cancer and management plan hence improve their understanding.

Psycho education also emerged as a noteworthy dimension, with 63.2% (F= 175) of respondents deeming it very important. The mean score of 2.7 further solidifies the importance assigned to psycho education. This finding underscores the recognition of the role of emotional support and coping strategies in cancer care. At the same time, psycho- education on the nature of cancer illness was rated by an overwhelming majority, 65.7% of respondents considering it very important. This underscores the recognition of the need for comprehensive understanding and awareness of the intricacies associated with the disease. The high mean score of 2.7 further supports the consensus on the significance of this educational component. These findings collaborates well with the observations made by Khan et al. (2022) who noted that, psycho-education was an important tool helping cancer patients discover and find solutions to their bothers including what is cancer, its causes, the nature of the disease and how one should cope with the disease. This also resonates well with the observations espoused by the social cognitive theory that the power of cancer patient empowerment into understanding cancer disease, its causes and methods of treatment and management. When patients were educated on cancer, their emotional well-being, mental and physical health was found to improve. Therefore, noting the contribution of this phenomena, oncology clinics in Meru County should not only be committed in treating the patients but also equip them through this psychosocial intervention.

Moreover, the findings highlight the importance of practical aspects of cancer care. In particular, psycho-education on using cancer medication received a noteworthy endorsement, with 153(55.2%) respondents attributing very high importance to it. This suggests a strong emphasis on understanding and managing the medication aspect of cancer treatment. Additionally, psycho-education on diet also emerged as significant, with 164(59.2%) rating it as very important, indicating a recognition of the role of nutrition in cancer care. However, there were slight variations in the perceived importance of psycho- education regarding cancer illness (mean = 2.5), self-awareness (mean = 2.5), and finding a purpose and hope for living received (mean = 2.6), suggesting that while these aspects are still considered very important, they may not be as universally prioritized as other dimensions of psycho-education. The role of psycho-education in enabling patients utilize medication was aired out by Hari et al. (2022) who found out that, psycho-education helped patients follow the treatment procedures and confront challenges throughout the treatment period. Concerning the role of psycho-education on diet, self-awareness, hopeful living and nutrition care, agreeing results were reported by Zhang et al. (2023) in China, notifying that, psycho-education improved patient psychological well-being by informing them with skills to overcome stress, coping mechanisms, health education, nutritional education, self- efficacy and the quality of life. This underscores the contribution of psycho-education, hence a need for this psychosocial intervention to be strengthened.

Regarding philosophical education, 175(63.2%) perceived it as very important, 55(19.9%) said it somewhat important, 42(15.2%) slightly important, and 5(1.8%) perceived as not he important. The results shows the value of including philosophical education in the psychosocial education of cancer patients. Basically, philosophical education provides a framework for understanding and coping with existential and philosophical questions that often arise in the face of a life-threatening illness. The incorporation of philosophical education into psycho-education programs for cancer patients aligns with broader discussions in existential therapy, palliative care, and medical humanities. By addressing existential concerns, promoting self-reflection, facilitating ethical decision-making, and fostering hope, the philosophical education can enrich the psychological support provided to cancer patients, hence enhancing their overall well-being and quality of life.

4.11.2 Inferential Statistical Findings on Psycho-education of Cancer Patients

An inferential statistical analysis was conducted to answer research question four. The research question four was: How does psycho-education influence the psychological well-being of cancer patients attending oncology clinics in Meru County? In answering this research question, a Pearson correlation statistical analysis was conducted and results are shown in Table 4.24.

Table 4. 24

Correlations results

		Y	X4
Y	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	277	
X4	Pearson Correlation	.366**	1
	Sig. (2-tailed)	.000	
	N	277	277

**. Correlation is significant at the 0.01 level (2-tailed).

The findings indicate that psycho-education had a positive and statistically significant relationship with psychological well-being of cancer patients (r = .366**, p = .000<.05). The results mean that a change in psycho-education triggers a change in PWB of CPs in the same direction. Consequently, the study conclude that psycho-education aspects significantly affect psychological well-being of cancer patients in oncology clinics in Meru County, Kenya. These results agree with the findings of Zhang et al. (2023) that psycho-education statistically influences the PWB of CPs in china. In agreement, was also the social cognitive theory (Bandura, 1989) which explained that, PWB of CPs could be enhanced through the psychosocial interventions such as psycho-education. The significance noted denotes the contribution of psycho-education on the psychological wellness of cancer patients. The results communicate a need to strengthen psycho-education.

4.11.3 Qualitative Findings on Psycho-education of Cancer Patients

The views of the caregivers and clinicians were sought through FGD and interviews on how psycho-education enhances the PWB of CPs at oncology clinics in Meru County. From the responses, 14 phrases/statements were identified. To facilitate better understanding, the identified phrases were further grouped into themes through deduction process. The deduction process entailed putting related phrases together into appropriate broad themes. The development of themes was broadly guided by the main variable of the study. This thematic analysis and deductive process resulted to categorization of the identified phrases/statements into four key themes associated with psycho-education. The four themes were: knowledge and awareness, treatment process understanding, adherence and cooperation, and emotional and psychological well-being.

Theme one was that, psycho-education raises awareness about the nature of cancer, its manageability, and the importance of communicating accurate information. Clinician 05 noted, *"Empowering patients through knowledge ensures they have realistic expectations and reduces the stigma associated with the disease. It also creates awareness, and fosters acceptance."* This theme emphasizes the transformative power of information.

Consequently, the potential of psycho-education was exposed by Santiago (2022) who informed that, it enabled both patients and caregivers manage the disease, obtain caregiving techniques, understand its nature and also prevent preventable risk factors. Santiago submitted that, psycho-education was an information empowerment tool. This also agrees very well with the person-centered theory which acknowledges the role of a psycho- therapist in building cancer patients self-awareness, self-direction and positive growth as a result of information empowerment (Walsh, 2013). This consensus, point out the needfulness of psycho-education. This implicates on tailor made information resources which aim to explain the nature of cancer illness and how to manage it.

Secondly, psycho-education helps to increase understanding of the treatment process. Understanding the treatment journey is crucial for cancer patients. It promotes a proactive approach, encouraging patients to follow up on treatments and actively engage in decision- making. Informed consent for various treatments is a key aspect of this theme, as it enables patients to participate in their healthcare decisions. A comment from Clinician 06 underscored the influence of *psycho-education, saying, "It helps patients comprehend the treatment process, fostering a sense of control and optimism.*" Understanding cancer treatment options allows patients to make informed decisions, pave way to consent for various treatments, and reduces anxiety related to uncertainty. This benefits were also discovered in the findings presented among Jordan women diagnosed with breast cancer (Younis et al., 2021). It was established that, psycho-education promoted patient adherence to medication, resilience, coping mechanisms towards the effects of the treatment and also understanding the nature of treatment. The results opine the need for oncology clinics to offer well repackaged psycho-education programs which expresses the treatment mechanisms for the disease in order to make them understand and, make informed decisions.

The practical aspects of treatment involve adherence to medications and cooperation with healthcare professionals. According to Ryan (2020), psycho-education play a critical role in making patients adhere to medications and cooperating with medical professionals comprehend the importance of these aspects in enhances treatment effectiveness. This theme focuses on the day-to-day involvement of patients and cooperation in the therapeutic process and treatment routine. Beyond medical information, psycho-education addresses emotional and psychological aspects. Clinician 01 argued, "*Psycho-education aids in accepting the diagnosis, building confidence, and preparing for the future, including potential challenges like changes in appearance and the possibility of death.*" This theme highlights the holistic influence of psycho-education on the overall well-being of cancer patients.

The views of cancer patients and clinicians were sought through open-ended questions and interviews respectively regarding on how psycho-education can be improved to enhance the PWB of CPs. From the responses, 18 phrases/statements were identified. To ease understanding o, the identified phrases/statements were further grouped into sub-themes and themes through deduction process. This entailed putting related phrases/statements together and developing a representative sub-theme, and further identifying appropriate broad theme category. The development of sub-themes and themes was broadly guided by the research question regarding the construct on psycho-education. This resulted into four main themes associated with psycho-education. The four main themes were: comprehensive patient education, infrastructure and resources, organizational policies and support systems, and accessibility and affordability of counselling services. The four categories of broad themes are presented in Table 4.25.

Table 4. 25

Suggestion for enhancing psycho-education of cancer patients

No.	Statements for improvements	Sub-themes	Themes
1.	• All patients, regardless of the stage of illness, should be educated • Conduct family background inquiries to offer personalized education • Train psycho-educationists for customized patient education. • Train and educate patients on diet. • Provide learning materials about the disease, exercise, nutrition, complementary therapies, and stress management (e.g., posters, fliers, brochures).	• Universal education • Tailored education • Learning materials	Comprehensive patient education
2.	• Dedicated Spaces 6. Allocate a room specifically for psycho-education purposes • Employ adequate staff for psycho-educational programs • Train counselling specialists • Build infrastructure • Give incentives to patients to encourage participation • Staff motivation through good pay, training, and professional development	• Dedicated spaces • Adequate staffing • Incentives	Infrastructure and resources
3.	• Have incentive programs such as food and nutrition lessons. • Develop policies on information disclosure, privacy, and confidentiality	• Policies • Support groups • Encouraging attendance	Organizational policies and support systems

	• Form support groups of cancer patients within the same hospital • Focus on the strengths and positive sides of the disease • Implement reminder strategies, such as seminar days with phone messages, to encourage attendance for education		
4.	• Make counselling services free for cancer patients.	Free counselling services	Accessibility and affordability of counselling services

Table 4.25 presents recommendations by participants on how to improve psycho-education towards enhancing PWB of CPs. From the responses and the themes, the study noted that the universal provision of psycho-education, regardless of the stage of cancer illness, underscored the importance of equal access to information. The adoption of this approach recognizes that the educational needs of patients evolve throughout their cancer journey, necessitating ongoing support tailored to different points in their treatment and recovery. Costas-Muniz et al. (2013) also acknowledged that, when cancer patient at each stage are empowered through psycho-education, they remained aware hence made regular decisions regarding their treatment options. Moreover, cancer education on all types of malignancies irrespective of the name was found to promote inclusivity in education awareness. The results further, respond to the current findings on the need for cancer patient to stay current all the time. This has implications on psycho- education information resources and qualified psycho-education therapists.

Participants also noted that understanding the family background of patients is integral to delivering personalized education. This involves inquiries that allow for the consideration of unique needs and challenges. Another aspect of improvement is training of psycho-educationists which ensures that cancer patients can adapt information to individual circumstances, creating a more impactful and relevant learning experience. Additionally, focusing on patient education about diet is essential for promoting overall health and well- being during cancer treatment. Mainnah (2016) also considered trained professional workers, adequacy of information materials and of facilities as critical drivers towards establishing the effectiveness of cancer management mechanisms. Moreover, Setyowibowo et al. (2022) findings agree in the essence of understanding the demographic characteristics of individuals for effective psycho-education interventions. It was explained that, the local context, family background, disease type and contextual characteristics were worth considering so as to offer repackaged information which will be very helpful to the patient and their family. In this study, these findings imply that, psycho-education among cancer patients at oncology clinics in Meru County need to be tailor made to family specific, financial, academic, geographical and contextual characteristics of the patients so as to reach their individual needs. This has implications on cancer clinicians training and professional development.

The provision of learning materials, such as posters, fliers, and brochures enhances the educational process, and is an essential area of improvement identified in this study. Clinician 04 supported this idea by emphasizing that, *"Visual aids and references reinforce key information about the disease, exercise, nutrition, complementary therapies, and stress management, aiding in a more comprehensive understanding for patients."*

Infrastructure and resources is another critical area of improvement which play a vital role in effective psycho-educational programs. Designating dedicated spaces for psycho- education creates an environment conducive to learning. The finding from patients and clinicians stressed that adequate staffing, including trained counselling specialists, contributes to the competency and effectiveness of the staff, ultimately enhancing the quality of education provided. Incentives, both for patients and staff, further encourage active participation and a motivated, skilled workforce. In agreement, Schofield and Chambers (2015) identified the critical aspects required in oncology clinics to facilitate effective psycho-education. It was identified that: cancer type and stage, unique individual needs, patient self-management practices, qualified staffing: regular palliative care staff training, and evidence-based intervention and oncology psycho-education polices promoted efficiency. Therefore, the results opine that, desired effect of psycho-education to be realized, oncology clinics should be equipped with facilities, information and human resources. Moreover, regular in-service training for oncologists and repackaged programs with respect to the needs of the patients are needful. These have implication on budgeting, government intervention, standardization, collaboration and implementation of professional development programs.

Thus, organizational policies and support systems are critically needed at oncology clinics owing to their role in establishing a trustworthy educational environment. The study by Schofield and Chambers (2015) also reported that clear policies on information disclosure, privacy, and confidentiality ensure that patients feel secure in sharing information and seeking guidance. Further, psycho-education within the hospital community should be considered. They are significant in fostering a sense of belonging, and in providing emotional support and shared experiences. Emphasizing the strengths and positive aspects of cancer contributes to a more optimistic outlook among patients.

Addressing accessibility and affordability concerns was described critical for the success of psycho-educational initiatives. Clinician 03 argued, *"Making psycho-education services free at oncology clinics removes financial barriers, ensuring that all patients, regardless of their financial situation, can benefit from essential mental health support."* Staff motivation through fair compensation, training, and professional development is crucial in maintaining a motivated and skilled workforce, ultimately enhancing the quality of patient education.

4.11.4 Convergence of quantitative and qualitative on Psycho-education of Cancer Patients

The quantitative and qualitative findings on psycho-education converged on five themes. One overarching theme is the universal emphasis on psycho-education, as demonstrated by both sets of results. The quantitative data underscores the demand for comprehensive information, with high ratings across various dimensions of psycho-education. Qualitatively, participants stressed the transformative power of psycho-education, emphasizing its role in enhancing awareness, reducing stigma, and fostering acceptance. In support, Setyowibowo et al. (2022) systematically reviewed the influence of psycho- education and established that it promoted adherence to treatment, reducing anxiety and psychological well-being in Scotland. This implies that psycho-education enhance the wellness of cancer patients, henceforth, the need to strengthen its interventions including understanding the characteristics of patients, information, training counselors, building infrastructure and building capacity.

Knowledge and awareness have emerged as critical elements in psycho-education in both sets of findings. The quantitative results highlight high ratings for psycho-education on the nature of cancer illness, therapy, and emotional support (philological education). The qualitative insights align with this, emphasizing the role of psycho-education in raising awareness about cancer, its manageability, and the importance of accurate information dissemination. This convergence points to the significance of developing psycho-education programs that provide accurate and comprehensive information about cancer, treatment options, and emotional support strategies. These results converge with the said benefits by Younis et al. (2021) that, psycho-education promoted awareness, understanding of the illness, patient adherence to medication, resilience, coping mechanisms towards the effects of the treatment, emotional stability and also understanding the nature of treatment. This also agrees with the social cognitive theory which dictates that, behavioral outcomes of patient can be achieved out of experiences. Therefore, patient empowerment with adequate information equips them to make right choices, grow resilient and understanding of the illness. Therefore, there is need to strengthen psycho-education intervention through considering cancer type and stage, unique individual needs and patient self-management practices.

The holistic approach to psycho-education is another common theme. Qualitative findings reveal that psycho-education goes beyond medical information, addressing emotional and psychological aspects. This perspective aligns with the varied importance ratings in the quantitative results for different dimensions of psycho-education. The implication is that psycho-education programs should adopt a holistic approach, incorporating emotional and psychological support components alongside medical information to better address the overall well-being of cancer patients. In support, Zhang et al. (2023) in China documented that, psycho-education improved patient psychological well-being by equipping them with skills to overcome stress, coping mechanisms, health education, nutritional education, self- efficacy and the quality of life. This underscores the need to offer holistic approach to psycho-education. This may be achieved with the adequacy of teaching resources and adequate qualified specialized staff.

Infrastructure and resources play a crucial role in effective psycho-education, as highlighted in both quantitative and qualitative findings. Quantitatively, practical aspects of cancer care such as medication and diet are underscored. Qualitatively, the need for dedicated spaces, adequate staffing, and incentives for both patients and staff is stressed. The implication is that healthcare institutions should invest in infrastructure, allocate dedicated spaces, ensure adequate staffing, and provide incentives to create a conducive environment for effective psycho-education. This approach was also stated in the results given by Schofield and Chambers (2015) which submitted that, consoling rooms, qualified specialists including; palliative care givers, nurses and clinicians and information resources the critical aspects required in oncology clinics to facilitate effective psycho-education. This implicates on resource allocation to fund human resource employment, acquisition of information resources and building of infrastructure.

Accessibility and affordability of counselling services emerged as another significant aspect. Qualitative findings emphasize the importance of making counselling services free for cancer patients to address accessibility and affordability concerns. This aligns with the quantitative result indicating the significance of psycho-education in enhancing psychological well-being. The implication is that healthcare policies should prioritize mental health support for all cancer patients, removing financial barriers and ensuring accessibility to counselling services. The necessity of accessibility and affordability of cancer services was also acknowledged by Levit et al. (2013). Levit et al. submitted that, free-for-service repackaged services needed to be reimbursed to patients and also interventions for overcoming cancer predicaments. This implies for government need to intervene to the matter and offer free-of-charge counselling services to patients in Meru County.

4.12 Financial Constraints and Psychological Well-Being of Cancer Patients

The fifth objective of the study was to examine the moderating effect of financial constraints on the connection between psychosocial interventions and the PWB of CPs receiving care at oncology clinics in Meru County. The researcher argued that financial constraints play a role in determining the extent to which PI influence the PWB of CPs.

4.12.1 Descriptive Statistics Findings on Financial Constraints affecting Cancer Patients

In measuring financial constraint variable, various statements regarding finances and cancer treatment were posed to respondents requiring them to rate each statement. The aspects covered in the statements were about financial security and satisfaction, concerns about expenses and future financial problems, and financial options and contributions. The rating scale was: Very much =4, Quite a bit =3, somewhat =2, A little bit =1 and Not all = 0. The findings were summarized and presented in Table 4.26.

Table 4. 26

Descriptive Statistics Findings on Financial Constraints for Cancer Patients

No.	Statements on financial constraints (N = 277)	Very much	Quite a bit	Some what	A little bit	Not all	Mean	Std. Dev.
i.	I have enough money in savings, retirement and assets to cover my treatment	29(10.5%)	17(6.1%)	24(8.7%)	8(2.9%)	199(71.8%)	.81	1.401
ii.	My medical expenses are more than I thought they would be	147(53.1%)	42(15.2%)	6(2.2%)	36(13.0%)	46(16.6%)	2.75	1.586
iii.	I don't worry about the financial problems I will have in the future as a result of my illness or treatment	60(21.7%)	60(21.7%)	55(19.9%)	37(13.4%)	65(23.5%)	2.05	1.470
iv.	I have options regarding the money I spend on cancer care	13(4.7%)	33(11.9%)	38(13.7%)	74(26.7%)	119(43.0%)	1.09	1.210
v.	I do not feel frustrated that I cannot work or contribute to the cost of my treatment	41(14.8%)	40(14.4)	66(23.8%)	53(19.1%)	77(27.8%)	1.69	1.397
vi.	I am satisfied with my current financial situation	38(13.7%)	9(3.2%)	69(24.9%)	42(15.2%)	119(43.0%)	1.30	1.401
vii.	I can meet my monthly expenses	62(22.4%)	36(13.0%)	52(18.8%)	43(15.5%)	84(30.3%)	1.82	1.539
viii.	I am not financially stressed	80(28.9%)	19(6.9%)	47(17.0%)	78(28.2%)	53(19.1%)	1.98	1.510
ix.	I am concerned about keeping my job and income	46(16.6%)	29(10.5%)	101(36.5%)	32(11.6%)	69(24.9%)	1.82	1.362

No.	Statements on financial constraints (N = 277)	Very much	Quite a bit	Some what	A little bit	Not all	Mean	Std. Dev.
x.	My cancer illness and treatment have not reduced my satisfaction with my present financial situation	46(16.6%)	11(4.0%)	70(25.3%)	81(29.2%)	69(24.9%)	1.58	1.351
xi.	I feel in control of my financial situation	16(5.8%)	10(3.6%)	48(17.3%)	33(11.9%)	170(61.4%)	.81	1.191

The results indicate an observable consensus across various dimensions of financial constraints (aggregate mean 1.6). Notably, the cancer patients were candid in stating disagreement by indicating ‘not at all’ on three statements; I have enough money in savings, retirement and assets to cover my treatment by 199(71.8%) cancer patients, I am satisfied with my current financial situation by119(43.0%) CPs, and I feel in control of my financial situation by 170(61.4%) CPs. Another substantial number of cancer patients, 81(29.2%) indicated ‘a little bit’ on statement, ‘My cancer illness and treatment have not reduced my satisfaction with my present financial situation’. The mean values was low in each case. The low mean indicates a generally low level of financial preparedness, security and satisfaction with some little variability in responses as indicated by standard deviation.

The findings imply that healthcare practitioners at oncology clinics should consider establishing financial resilience to enhance overall patient well-being through tailored psychosocial interventions. The psychosocial interventions should address the specific financial concerns raised by patients, focusing on mitigating negative influence. They should also collaborate with financial advisors to establish empowerment programs and financial education initiatives, and provide guidance on budgeting, managing expenses, and exploring available financial resources, aiming to improve overall satisfaction and reduce stress. Pahlevan Sharif et al. (2020) also noted that cancer patients faced a lot of financial distress and therefore educating them on this subject will empower them to make firm decisions on their financial priorities. Moreover, understanding their current needs was deemed important so as to give repackaged information aimed at addressing their specific financial challenges. To this study, the results imply that, cancer patients are in need of financial literacy training as well as aid. Therefore, psychosocial interventions should incorporate this subject matter.

A notable majority 147(53.1%) reported that their medical expenses were more than anticipated. The mean score of 2.75 indicates a high level of perceived financial burden, with a standard deviation of 1.586, suggesting considerable variability in the extent to which medical expenses exceeded expectations. In addition, concerns about job security and income were somewhat prevalent with 101(36.5%) cancer patients indicating agreement. The mean score of 1.82 reflects is slightly below the mean, with a standard deviation of 1.362, suggesting little variability in responses. At the same time, about 21.7% reported not worrying about future financial problems due to illness or treatment while, 60(21.7%) said not worrying 'Very much' and a similar number said 'Quite a bit'. The mean score of 2.05 indicates a moderate level of' worry on future financial confidence, with a standard deviation of 1.470, suggesting some variability in expectations. Moreover, responses regarding overall financial stress varied, with 80(28.9%) reporting 'Very much' and 53(19.1%) being "Not at all" financially stressed. The mean score of 1.98 is below average level of financial stress, meaning, noticeable level of financial distress with a standard deviation of 1.510, indicating some diversity in responses.

According to the above findings, cancer patients revealed financial distress. The findings mean that the government should explore options for financial assistance programs, insurance education, or subsidies to alleviate the burden of unexpected medical costs on cancer patients. They further imply that employers and policymakers should consider implementing flexible work arrangements and financial support mechanisms to alleviate financial distress. Moreover, psychosocial interventions should be strengthened to focus on building resilience and providing financial planning resources to help patients navigate potential challenges, and in managing financial stress. In concurrence, Khera et al. (2022) in the USA also identified that, cancer patients had high financial distress which reached 68% and that cancer financial management therapies positively influenced patients' health outcomes and survival. However, strategies for addressing the financial burdens of cancer patients were not suggested. This implies that, financial distress has been persistent however, practical ways of addressing the same are yet to be implemented. The oncology clinics at Meru County need government interventions to subsidize cancer treatment, increase insurance coverage and management costs. Moreover, free financial counselling and psychosocial interventions need to be implemented. This has direct implications on developing financial policies to alleviate financial distress.

The study further noted that 119(43.0%) of cancer patients reported had no options regarding the money spent on cancer care. The mean score of 1.09 indicates a low level of perceived flexibility, with a standard deviation of 1.210, suggesting some variability in responses. Respondents varied in their frustration about not being able to work or contribute to treatment costs. Out of 277 patients, 77(27.8%) said 'not at all', and 6(23.8%) indicated 'somewhat', the mean score of 1.69 is low indicating that most patients feel frustrated that they cannot work or contribute to the cost of their treatment. The standard deviation of 1.397, indicate some dispersion in responses. The findings on financial frustrations were also reported by Smith et al. (2022) that, cancer patients experienced frustrations, personal economic burdens associated with the disease and its treatment, affected socioeconomically due to inability to work leading to adverse economic and health outcomes. This denotes the seriousness on the level of financial frustrations cancer patients undergo. The government should increase the health insurance coverage for cancer treatment, give subsidies to cancer services and care, collaborate with partners to fund cancer care and also provide free psychosocial interventions to improve the psychological well-being of cancer patients. This has implications on policies, health insurance coverage standards and psychosocial interventions guidelines.

Meeting monthly expenses proved challenging for a about 84(30.3%) of cancer patients who said that they could not meet these expenses at all. Only 62(22.4%) were able to meet their monthly expenses. The mean score of 1.82 is below average reflecting difficulties in financial options and contributions. The standard deviation of 1.539, suggesting variability in monthly expense management. This was also evident at Moi Teaching and Referral Hospital where Njuguna et al. in 2015 reported that, cancer patients did not adhere to medication due to financial challenges. Moreover, some households lacked transport to the hospital while others sacrificed their food budget to take care of the sick. This showed huge financial constraints hence inability to even meet their basic needs leave alone the medical expenses. This indicates that this situation is deplorable and henceforth, the government should find alternatives of meeting medical needs of cancer patients, or else the mortality rate will continue to go high.

The findings imply a need for healthcare providers, government and psychologists to actively engage patients in discussions about financial support programs and explore options and strategies to provide financial relief and support to patients facing difficulties in managing day-to-day expenses. Psychosocial interventions in this case should incorporate counselling services to address the emotional influence of financial constraints on patients' well-being.

4.12.2 Qualitative Findings on Financial Constraints of Cancer Patients

Clinicians and caregivers were asked during interviews and FGD, respectively to suggest how financial constraints affect the PI and the PWB of CPs receiving care at oncology clinics in Meru County. Exerts/statements were received from respondents. Thematic technique through inductive process was applied in analysing exerts /statements. This process resulted to categorization of phrases/statements into four main themes associated with financial constraints. The four main themes are: limited access to healthcare, emotional and psychological influence, treatment and health management challenges, and influence on healthcare system and professionals. The four broad themes are presented in Table 4.27.

Table 4. 27

Effects of financial constraints on psychological well-being of cancer patients

No.	Excerpts statements for enhancing psychoeducation	Sub-themes	Themes
1.	• Limits access to care • Limits access to treatment • Lower access to services • Services are expensive, restricting patients from disclosing their sick condition, leading to late diagnosis	Restricted healthcare services	Limited access to healthcare
2.	• Leads to depression and stigmatization/self-stigmatization • Lower patient's self-esteem • High mental health issues • High social withdrawal of friends • Leads to family breakup and withdrawals • Leads to increased suicidal thoughts • Family withdrawal makes patients develop suicidal thoughts	Influence on mental health	Emotional and psychological influence
3.	• Delayed treatment • Poor adherence to medicine • Poor patients follow-ups • Poor nutrition and feeding habits • Hastening disease prognosis	Treatment delays and non-adherence	Treatment and health management challenges
4.	• Financial issues also affect the hospital through limited human resources • High mortality rate • Restrict access to counselling services • Restrict access to counselling services • Financial issues result in patients not coming regularly for scheduled clinics, resulting in poor follow-up, poor adherence, poor health, and early death	Strain on healthcare resources	Influence on healthcare system and professionals

The findings show profound influence of finance constraints on the provision of PI to improve PWB of CPs. According to the findings, financial constraints do significantly impede cancer patients' access to necessary healthcare services. This was stressed by Clinician 02 who noted, *“Limited financial resources may prevent individuals from seeking timely medical attention, resulting in delayed diagnoses and compromised treatment outcomes.”* the clinician added, *“the high cost of services deters patients from disclosing their health condition early, contributing to late-stage diagnoses.”*

Participants in FGD noted that financial constraints not only affect the physical aspects of cancer but also have reflective emotional and psychological consequences. Patients may experience depression, and self-stigmatization due to their inability to afford necessary treatments, leading to a negative influence on their mental well-being (Thom & Benedict, 2019). Ma et al. (2022) also noted that social withdrawal and increased suicidal thoughts may further exacerbate the emotional toll on individuals and their families.

Another profound influence is delayed cancer treatments and poor adherence to prescribed medications. Supporting proposition, clinician 05 pointed that *“Patients usually struggle to afford medications and follow-up appointments, leading to compromised treatment efficacy and overall health management.”* This may also results to poor nutrition and feeding habits contributing to further deterioration of health conditions.

During focused group discussion, caregivers described how financial constraints strain the healthcare system, hence delimiting the provision of comprehensive healthcare. High mortality rates noted during the discussion and restricted access to counselling services highlight the broader influence of financial constraints on the overall effectiveness of healthcare system for cancer patients. In agreement, Pahlevan Sharif et al. (2020) also noted that, cancer patients faced a lot of financial distress. This was considered to be the major reason for poor adherence to clinical appointments, anxiety, depression, late diagnosis of the cancer disease and hence high mortality rate. This underscore the need for urgent government intervention to fund cancer patient's medication and treatment. They can do so by providing comprehensive insurance, partnering with well-wishers and subsidizing treatment costs for the disease.

Clinicians and cancer patients were asked to suggest ways in which financial constraints can be addressed to enhance the psychological well-being of cancer patients. Out of nineteen excerpts / statements, the study narrowed down to five themes –all of which were indicating towards the improvements areas towards addressing financial constraints. These included: government intervention, infrastructure development, collaboration with NGOS and churches, awareness and education, and financial assistance and support programs. Excerpts / statements and resulting themes are shown in Table 4.28.

Table 4. 28

Suggestions for addressing financial constraints of cancer patients

No.	Excerpts /statements for addressing financial constraints	Themes
1.	• NHIF cover for cancer medical expenses • Government funding for treatment • Equipping oncology clinics • Funding treatment as done for TB • Creating a government funding model/framework • Government paying a bigger percentage for cancer treatment	Government intervention
2.	• Hospitals with all services • Each county having radiotherapy • Equipping level five hospitals in counties	Infrastructure development
3.	• NGOs and churches funding chemo and radio machines • Financial support through NGOs and FBOs	Collaboration with NGOS and churches
4.	• Creating awareness on other insurance schemes • Encouraging patients to register for medical insurance covers • Holding campaigns for awareness and fundraising • Conducting campaigns in villages to educate about cancer • Free screening and medication like TB and HIV	Awareness and education
5.	• Subsidized nutritional supplements for patients • Hospital kit/cancer patient SACCOs/support group providing loans • Improving family involvement for financial support	Financial assistance and support programs

One of key suggestions is the need for government intervention. This includes not only enhancing NHIF coverage but also creating a dedicated funding model for cancer treatment. The theme on infrastructure development emphasized provision of radiotherapy facilities in all hospitals. This would not only reduce travel costs for patients but also streamline the treatment process. Collaboration with NGOs and Churches was also considered as another way of addressing financial constraints. For instance, clinician 03 felt that, *"the involvement of NGOs and churches was* *important in funding acquisition of essential equipment like chemo and radio machines."* This reflects a recognition of the broader societal responsibility in addressing financial constraints of cancer patients.

Participants also suggested awareness and education. Patient number 178 emphasized on a need to create awareness about insurance schemes, encouraging medical insurance registration, and conducting campaigns in villages. This is a proactive approach that prevent late detection of cancer. Early detection could significantly reduce the financial burden on patients (Deckers et al., 2020). The last theme was on financial assistance and support programs which involves addressing the immediate financial strain for example subsidizing nutritional supplements and the creation of support programs like hospital kits or patient SACCOs.

4.12.3 Convergence of quantitative and qualitative on Financial Constraints of Cancer Patients

One prominent aspect of convergence is the high perceived financial burden experienced by a significant number of patients. The quantitative data highlights dissatisfaction with current financial situations, insufficient savings, and perceived medical expenses exceeding one's ability. This aligns with qualitative data that established that limited financial resources hinder timely access to medical attention, leading to delayed diagnoses and compromised treatment outcomes. This was also the case as reported by Mustapha et al. (2020) on the financial burden of cancer on patients in southwest Nigeria. They established that, cancer patients were not able to pay for their prescribed treatment, and they pushed themselves to the corner to raise funds by selling properties, taking loans, and dropping their children out of school. The results illustrate a very high cost of cancer management and the inability to cater for the same. Government should therefore intervene and make life bearable for Kenyan cancer patients.

Furthermore, both sets of results underscore the profound influence of financial constraints on the mental health of cancer patients. Quantitatively, concerns about future financial problems and varying levels of reported financial stress indicate the psychological effects of financial burdens. Qualitatively, emotional and psychological consequences such as depression, self-stigmatization, lower self-esteem, social withdrawal, and increased suicidal thoughts are highlighted as outcomes of financial constraints. This situation reported was not in any way different from reported findings by Thom and Benedict (2019) who documented that; patients experienced depression, self-stigmatization, anxiety and hopelessness due to their inability to afford necessary treatments, leading to a negative influence on their mental well-being. The results imply that, financial constraints have profound negative outcomes on the patient life and therefore there is a need to re-address the financial burden through financial counselling, insurance over, government subsidies and government funding.

Challenges in meeting monthly expenses emerge as a shared concern. Both the quantitative and qualitative findings indicate that a considerable portion of cancer patients face difficulties in managing day-to-day expenses, reflecting the broader financial struggles that patients encounter. Similarly, Njuguna et al. (2015) had earlier found out that, cancer patients lacked transport to the hospital while others sacrificed their food budget to take care of the sick. This showed huge financial constraints hence inability to even meet their basic needs leave alone the medical expenses. This indicates that this situation is deplorable and henceforth, the government should find alternatives of meeting medical needs of cancer patients, or else the mortality rate will continue to go high.

The limited access to healthcare services due to financial constraints is another converging point. Quantitative data reveals a low perceived flexibility regarding options for money spent on cancer care, while qualitative insights emphasized restricted access to healthcare services and delayed diagnoses. Similarly, Smith et al. (2022) also agreed that, cancer patients experienced frustrations, personal economic burdens associated with the disease and its treatment, affected socioeconomically due to inability to work leading to adverse economic and health outcomes. The findings also underpin the adopted person-cantered theory by Carl Rodgers (Walsh, 2013). Since the theory rotates around fostering a precise empathetic comprehension of a client, the counselor can help the patient handle his/her thoughts and feelings when the counselor provides the needed conditions for the patient to come up with ways of handling financial frustrations.

The above converging points have far-reaching implications. The results show that integrated psychosocial interventions are imperative to address the emotional and financial aspects of cancer patients' psychological well-being. Government interventions, such as financial assistance programs and insurance education, are essential to alleviate the burden of unexpected medical costs. Strengthening the healthcare system to provide comprehensive care and support is crucial. Additionally, community awareness programs and collaborations with NGOs and churches contribute to early detection and provide broader support to patients facing financial challenges. Pahlevan Sharif et al. (2020) also noted that, government intervention to fund cancer patient's medication and treatment, comprehensive insurance, partnering with well-wishers and subsidizing treatment costs for the disease were actionable parameters towards addressing the financial distress of cancer patients hence attain quality of life.

4.13 Psychosocial Interventions and Psychological Well-Being of Cancer Patient

The overall goal of this study was to evaluate the influence of psychosocial interventions on enhancing the psychological well-being of cancer patients who are undergoing treatment at oncology clinics in Meru County, Kenya, as well as to determine the moderating effect of financial constraints on the connection between psychosocial interventions and the psychological well-being of cancer patients receiving care at oncology clinics in Meru County. In the previous sections, the findings on the prediction of the independent variables based on the first four research hypotheses has been provided. The literature in chapter two and results of the independent variables presented in sections 4.8 to 4.11 indicate an indispensable need for the four predictors.

To test overall influence of psychosocial interventions on the psychological well-being of cancer patients, a multiple linear regression analysis was conducted. Thus, the dependent variable (the psychological well-being of cancer patients visiting oncology clinics in Meru County) was regressed on the four psychosocial interventions in a combined model to determine the prediction capacity. In this study, the coefficient of determination (R-Square value) was used to determine the nature of the variance that was accounted by the four predictor variables (individual counselling, family counselling, support groups, and psycho-education) (Saunders et al., 2009). The R-value represented the strength of the link between the use of psychosocial interventions and the psychological well-being of cancer patients visiting oncology clinics in Meru County. The statistical values in the ANOVA table were helpful in determining whether the model was statistically significant and valid to be used in the analysis. In this study, the alpha level of significance was, $P = \leq 0.05$. The regression coefficients were employed in order to show the lowest beta value of each predictor variable when all of them, (individual counselling, family counselling, support groups, and psycho-education) are combined in one model. Therefore, the regression weights helped to show the effect of change in the psychological well-being of cancer patients as compared to one unit change in the corresponding predictor variables, while, all other factors in the combined model were held constant. Tables 4.14, 4.15, and 4.16 show the results of a multiple linear regression.

This study aimed to assess the influence of psychosocial interventions on enhancing the psychological well-being of cancer patients undergoing treatment at oncology clinics in Meru County, Kenya. Additionally, it sought to explore the moderating influence of financial constraints on the relationship between psychosocial interventions and the psychological well-being of the patients. The preceding sections have presented findings related to the prediction of independent variables based on the initial four research questions.

Chapters two and the results presented in sections 4.8 to 4.11 underscore the essential independent role of each of the four predictors in enhancing the psychological well-being of cancer patients. To examine the overall influence of psychosocial interventions in enhancing the psychological well-being of cancer patients, a multiple linear regression analysis was conducted. This analysis involved regressing the dependent variable (psychological well-being of cancer patients in Meru County's oncology clinics) on the four psychosocial interventions in a combined model to ascertain their predictive capacity.

The study utilized the coefficient of determination (the adjusted R-Square value) to describe the proportion of variance accounted for by the four predictor variables (individual counselling, family counselling, support groups, and psycho-education). The adjusted R- value was used instead of R-Square value because the study utilized the standardized scores, considering that the rating scales used for all variables were different in some cases. The adjusted R-value indicates the strength of the association between the utilization of psychosocial interventions and the psychological well-being of cancer patients in Meru County. Statistical values in the ANOVA table were instrumental in assessing the model's statistical significance and validity for analysis, with a significance level set at $P \leq 0.05$.

Regression coefficients were employed to demonstrate the minimum beta value for each predictor variable when incorporated into a combined model. These coefficients demonstrate the influence of a one-unit change in the corresponding predictor variables (individual counselling, family counselling, support groups, and psycho-education) on the psychological well-being of cancer patients, while keeping all other factors constant in the combined model. The results of the multiple linear regression are presented in Tables 4.29, 4.30, and 4.31.

Table 4. 29

Model summary results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.576[a]	.332	.322	.48036

a. Predictors: (Constant), X4, X3, X1, X2

Table 4.29 shows that when the four variables; that is, individual counselling (X1), family counselling (X2), support groups (X3), and psycho-education (X4) were assessed in a single model, they show a positive and strong correlation with the psychological well-being of cancer patients; R-value is 0.576. The data also reveal that the three predictor variables have an adjusted R-square value (R^2 = 0.322), indicating that the four predictor factors explain for 32.2% of the variation in the outcome variable (psychological well-being of cancer patients). The ANOVA results in Table 4.30 aids in determining the model's validity.

Table 4. 30

ANOVA results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	31.205	4	7.801	33.809	.000[b]
	Residual	62.762	272	.231		
	Total	93.967	276			

a. Dependent Variable: Y
b. Predictors: (Constant), X4, X3, X1, X2

The model validity shown in ANOVA Table 4.30, reveal that the hypothesized model is an excellent match to the data; (F (4,272) = 7.801, P = .000). This means that the four predictor variables (individual counselling, family counselling, support groups, and psycho-education) generate a statistically significant model for explaining variances in the psychological well-being of cancer patients. In that connection, the regression coefficients were evaluated to determine the contributory weight of each psychosocial intervention on changes in the psychological well-being of cancer patients. The regression weights for each predictor variable in the combined model are shown in Table 4.31.

Table 4. 31

Regression weights results

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-.259	.300		-.865	.388
	X1	.115	.049	.123	2.368	.019
	X2	.278	.055	.267	5.054	.000
	X3	.430	.066	.329	6.534	.000
	X4	.249	.054	.240	4.638	.000

a. Dependent Variable: Y

The ANOVA Table 4.31 demonstrates the model's validity, indicating that the proposed model aligns very well with the data (F (4,272) = 7.801, P = .000). This implies that the four predictor variables (individual counselling, family counselling, support groups, and psycho-education) collectively establish a statistically significant model for elucidating variations in the psychological well-being of cancer patients. In agreement, Kagee et al. (2018) also found that, implementing psychosocial interventions such as individual, family and psycho-education influenced the psychological well-being of cancer patients. TConsequently, the examination of regression coefficients was conducted to ascertain the individual influence of each psychosocial intervention on variations in the psychological well-being of cancer patients.

In this study, the standardized Beta coefficients were interpreted considering that the study variable had different rating scales; furthermore the coefficient of the constant value is insignificant P-value = .388. Therefore, the results of the regression coefficients in Table 4.31 show the standardized Beta coefficient values of .123, .267, .329 and .240 for X_1, X_2, X_3 and X_4 respectively. The results indicate that the corresponding P-values for each psychosocial intervention were significant. As noted above, the study considered and interpreted the standardized Beta coefficient values since study variables had dissimilar rating scales, and that the constant value was statistically; that is, P>0.05. The results show that all the four psychosocial interventions are jointly statistically significant in the combined regression model in influencing psychological well-being of cancer patients. Consequently, the initial regression model was confirmed; that is,

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon, \text{......................} \text{(i)}$$

The regression coefficients reveal standardized Beta coefficient values of .123, .267, .329, and .240 for X1, X2, X3, and X4, respectively. These results indicate that the P-values associated with each psychosocial intervention are statistically significant. It is worth noting that the analysis considered and interpreted standardized Beta coefficients due to the dissimilar rating scales of study variables, and due to the fact that the constant value was statistically insignificant (P > 0.05).

The findings indicate that all four psychosocial interventions collectively, are statistically significant within one regression model, in influencing the psychological well-being of cancer patients. Therefore, the initial regression model; $Y=\beta 0+\beta 1X1+\beta 2X2+\beta 3X3+\beta 4X4+\varepsilon$

(i) was

validated.

where:

Y= dependent variable (psychological well-being of cancer

patients) X_1 = Individual counselling

X_2= Family

counselling X_3 =

Support groups

X_4= Psycho

education

β = Coefficients of the variables determined by the

model β_0 = Coefficients of the constant

ε = is the estimated error of the model.

The resulting multiple linear regression model is:

The psychological well-being of cancer patients = -.259 + .123X_1 + .267X_2 + .329X_3 +

.240X_4+ e

According to the resultant multiple linear regression model, the psychological well-being of cancer patients attending oncology clinics in Meru County is represented by the equation -.259 + (.123X1individual counselling + .267X2family counselling + .329X3support groups + .240X4psychoeducation). In this equation, -.259 serves as the constant threshold value associated with the collective influence of psychosocial interventions, and this value remains consistent across all the four interventions. The outcomes demonstrate that the working together of individual counselling (X1), family counselling (X2), support groups (X3), and psycho-education (X4) yields a statistically significant model for predicting the psychological well-being of cancer patients in oncology clinics in Meru County.

These findings underscore the significant role played by the four psychosocial interventions (individual counselling, family counselling, support groups, and psycho-education) in influencing the psychological well-being of cancer patients. The results imply a collaborative effect of these interventions, indicating that they collectively contribute to enhancing the psychological well-being of cancer patients. Consequently, neglecting to strengthen and endorse these four psychosocial interventions in oncology clinics may undermine the psychological well-being of cancer patients. This was also agreed upon by Muita (2019) and Kagee et al. (2018) who noted that counseling interventions and psychosocial support to cancer patients improved their psychological well-being. Moreover, the results support the recommendations presented in the social cognitive theory which argues that, psychological well-being of cancer patients can be shaped by the environment and reinforcing forces which in this case are the psychosocial interventions. The level of agreement underscored in the discussed findings explain the needfulness of strengthening the specific psychosocial interventions (individual counselling, family counselling, support groups and psycho-education) in order to improve the psychological well-being of cancer patients. This implicates on staff capacity development, comprehensive information empowerment, psychosocial policies, infrastructure development, government funding, insurance and collaboration with charitable bodies.

4.14 Results on Moderating Effect of Financial Constraints

The fifth research question stated, *"*Does the presence of financial constraints moderate the association between psychosocial interventions and the psychological well-being of cancer patients receiving care at oncology clinics in Meru County? In addressing this question, a Moderated Multiple Regression (MMR) model was utilized, resulting into three models. In the first model, the study evaluated the collective influence of the four psychosocial interventions on the psychological well-being of cancer patients in Meru County's oncology clinics. Subsequently, the second model incorporated the moderator variable; that is, financial constraints (Zj), and the resulting outcomes were presented as model two. An interaction term *(βijXiZj ---- Xii, Xiii, Xiv *Zj)* was then introduced in the third model, aiding in the examination of the moderation effect sought in this study.

The analysis of this study considered and interpreted the R square change statistics from the summary of the moderated multiple regression model to determine the moderation effect of financial constraints. The P-value was employed to signify the statistical significance of the model's interaction term, providing a basis for concluding on the hypothesized moderation effect in this study. The formulated MMR model for this investigation are expressed as follows:

$Y = \beta0 + \beta1X1 + \beta2X2 + \beta3X3 + \varepsilon$ .... (i)

$Y = \beta0 + \beta1X1 + \beta2X2 + \beta3X3 + \beta zZj + \varepsilon$........................(ii)

$Y = \beta0 + \beta1X1 + \beta2X2 + \beta3X3 + \beta jZj + \beta ijXiZj + \varepsilon$............. (iii)

Where:

Y= dependent variable

X1 = Individual

counselling X2=

Family counselling

X3 = Support

groups X4=

Psycho

education

β = Coefficients of the variables determined by the

model Zj = The moderating variable, the financial

constraints.

Bj = The coefficient of the moderator as a predictor

XiZj = The interaction term between variable Xi (i = 1, 2, 3, 4) and moderating

variable Bij = The coefficient of the interaction term.

ei = error.

The moderation findings are reported in Tables 4.32, 4.33 and 4.34, and accordingly.

Table 4. 32

Moderation effect of Financial Constraints: Model validity

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	31.205	4	7.801	33.809	.000[b]
	Residual	62.762	272	.231		
	Total	93.967	276			
2	Regression	33.139	5	6.628	29.529	.000[c]
	Residual	60.828	271	.224		
	Total	93.967	276			
3	Regression	35.139	6	5.857	26.879	.000[d]
	Residual	58.828	270	.218		
	Total	93.967	276			

a. Dependent Variable: Y

b. Predictors: (Constant), X4, X3, X1, X2

c. Predictors: (Constant), X4, X3, X1, X2, M

d. Predictors: (Constant), X4, X3, X1, X2, M, Interaction_terms

In Table 4.17, model one exhibits statistical significance with F (4, 272) = 33.809, $P < 0.05$, indicating its suitability for further investigation. The inclusion of financial constraints as a predictor variable in the second model also results in statistical significance, as reflected in the F statistics, F (5, 271) = 29.529, $P < 0.05$, affirming its influence on the psychological well-being of cancer patients in Meru County's oncology clinics. The third model, incorporating the interaction term (Moderator interaction factor), maintains statistical significance with F (6, 270) = 26.879, $P < 0.05$. This suggests that the model remains valid even after introducing the moderating variable.

The outcomes highlight the statistical significance of the four variables within the model, emphasizing their combined influence on the psychological well-being of cancer patients in oncology clinics in Meru County. Following the establishment of predictive capability and validity, the study analyzed the model summary table to discern the moderating variable's influence on the hypothesized relationship. Table 4.33 provides a summary of these findings.

Table 4. 33

Moderation effect of Financial Constraints: Model Summary

					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.576[a]	.332	.322	.48036	.332	33.809	4	272	.000
2	.594[b]	.353	.341	.47377	.021	8.618	1	271	.004
3	.612[c]	.374	.360	.46678	.021	9.178	1	270	.003

a. Predictors: (Constant), X4, X3, X1, X2
b. Predictors: (Constant), X4, X3, X1, X2, M
c. Predictors: (Constant), X4, X3, X1, X2, M, Interaction_terms

According to the data in Table 4.18, all four psychosocial interventions account for 33.2% of the overall variance in psychological well-being of cancer patients (R Square =.332). When financial constraints (the moderator) was added to the second model, the R Square value improved by 2.1 percent, and the model remained statistically significant (R Square =.353, P =.004). This meant that even after controlling for the moderator (the financial constraints), the model was still statistically significant in influencing the psychological well-being of cancer patients.

The next step involved introducing the interaction factor of the moderator, *(βijXiZj Xii*, *Xiii, Xiv *Zj)* into MMR model number three to help ascertain the moderating effect. In the resulting model number three, the R square increased by 2.1% to 37.4% (R-square change = .021, and the P-value of model three was statistically significant, (R^2 =.374, p =.003). This meant that when the interaction terms of the moderator (moderation factor) were introduced into the third model, it led to an increase in the R square value, while the P-value shows that the model was statistically significant. Therefore, the study concluded that financial constraints statistically and significantly moderate the influence of psychosocial interventions on the psychological well-being of cancer patients visiting oncology clinics in Meru County. These results link well with the demographic findings regarding occupation where the majority of cancer patients reported deprived financial resources to cater for the treatment.

Consequently, the researcher did not identify a study which addressed the moderating influence of financial constraints between psychosocial interventions and the psychological well-being of cancer patients. However, some aspects of agreement were noted in the findings of Miller et al. (2023) and Katler et al. (2019) which noted the existence of a relationship between financial distress and psychosocial well-being of cancer patients. Therefore, financial constraints need to be addressed for the effectiveness of psychosocial interventions on the psychological well-being of cancer patients. This as well supports the deliberations put across by the theorist who developed the person-centered theory that, when a therapist accords time to listen to a person, sharing their experiences may help improve their self-awareness, self-direction and positive growth. Therefore, the theory is in support of the role of oncology clinic care providers to educating and sharing information with cancer patients as well as giving them opportunity to share their frustrations. In doing so, cancer patient’s individual needs are understood and hence empowered to make right financial decisions. In view of this finding, the study went ahead to interpret the regression coefficients whose results are shown in Table 4.34.

Table 4. 34

Moderation Effect of Financial Constraints: Regression Weights

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	-.259	.300		-.865	.388
	X1	.115	.049	.123	2.368	.019
	X2	.278	.055	.267	5.054	.000
	X3	.430	.066	.329	6.534	.000
	X4	.249	.054	.240	4.638	.000
2	(Constant)	-.405	.300		-1.350	.178
	X1	.114	.048	.121	2.374	.018
	X2	.231	.056	.223	4.094	.000
	X3	.392	.066	.300	5.934	.000
	X4	.203	.055	.195	3.660	.000
	M	.165	.056	.164	2.936	.004
3	(Constant)	-.538	.299		-1.801	.073

X1	.127	.047	.135	2.678	.008
X2	.245	.056	.236	4.389	.000
X3	.372	.066	.285	5.683	.000
X4	.203	.055	.196	3.730	.000
M	.164	.055	.163	2.963	.003
Interaction_terms	.005	.001	.148	3.029	.003

a. Dependent Variable: Y

According to the findings in Table 4.19, all the four psychosocial interventions are statistically significant in predicting the psychological well-being of cancer patients visiting oncology clinics in Meru County. In model two, all the all the four psychosocial interventions, and financial constraints are still statistically significant. This meant that financial constraints has predictive capacity and was thus influencing the psychological well-being of cancer patients.

When the interaction terms were introduced in model number three, the model remained statistically significant (β1 = -.538, P <.073); and coincidentally, all the four psychosocial interventions (individual counselling (X1), family counselling (X2), support groups (X3), and psycho-education (X4) when combined in one model together with the moderator and the interaction terms, the resulting model was still statistically significant. This indicates that financial constraints has a strong moderation effects in the model, hence, the positively influencing their weight of psychosocial interventions on the psychological well-being of cancer patients visiting oncology clinics in Meru County. These findings support the conclusion that financial constraints moderate the extent of the weight of the influence of psychosocial interventions on the psychological well-being of cancer patients visiting oncology clinics in Meru County.

The resulting moderated multiple regression model was generated using the standardized coefficients because the scale used were dissimilar and that the constant had an insignificant P-value. The model was:

$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta jZj + \beta ijXiZj + \varepsilon$, hence,

Psychological well-being $= -.538 + .135X_1 + .236X_2 + .285X_3 + + .196X_4 \ .163Zj + .148Zj + \varepsilon$.

The resulting moderated multiple regression model shows that the psychological well-being of cancer patients = (135X_1 individual counselling + .236X_2 family counselling + .285X_3 support groups + .196X_4 psycho-education + .163Zjmoderator + .148Zj interaction terms -.538+ ε. In this model, -.538 is the baseline value which is linked to the predictor variables. This implies that -.538 is the same for each psychosocial interventions in the moderated multiple regression model. These results are showing that the relationship between psychosocial interventions and the psychological well-being of cancer patients visiting oncology clinics in Meru County. There lacked a study which established the baseline value that links the three variables of the study. Existing research by Miller et al. (2023) and Katler et al. (2019) acknowledge the influence of financial distress and psychosocial well-being of cancer patients. In line with the findings, is the adopted social cognitive theory which explains that, psychological well-being of cancer patients could be enhanced through psychosocial interventions.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the key findings from Chapter 4 and presents the conclusions and recommendations stanching from the results. It also suggests areas for further research based on gaps identified in the current study. The purpose of the study was to evaluate the influence of psychosocial interventions on enhancing psychological well-being for cancer patients undergoing treatment at oncology clinics in Meru County, Kenya. The specific goals were to assess the influence of particular interventions, including individual counseling, family counseling, support groups, and psychoeducation, on patients' psychological well-being. The study also examined how financial constraints moderated psychosocial interventions and the psychological well-being for cancer patients.

Two theories that guided this study were Bandura's Social Cognitive Theory and Rogers' Person-Centered Theory. The study involved 381 cancer patients, 40 caregivers, and 6 clinicians across 5 oncology clinics in Meru County. Data collection utilized questionnaires, interviews, and focus groups. Analysis incorporated quantitative and qualitative techniques, with results organized by study variables. Key conclusions and recommendations are presented based on the major findings.

5.2 Summary of Study Findings

The results are summarized in three main parts. First, the response rate, showing the percentage of people who participated in the study. Second, reliability, thirdly, background details about the respondents, like demographics and other important aspects. Finally, the key findings for each variable studied are highlighted, summarizing the main outcomes related to each one.

5.2.1 Response Rates

The response from cancer patients, caregivers, and clinicians at oncology clinics achieved a positive overall response rate of 83%, indicating effective sampling techniques. The highest response rate was from cancer patients at 83% (277 respondents), while caregivers had a consistently high 88% rate (35 respondents) across clinics, suggesting strong engagement. Clinicians had 83% response rate (5 respondents).Overall, the high response rates reflect reliable sampling methods and positive participation in the study by the target groups.

5.2.2 Background Information of Respondents

The majority of cancer patients were female (65.3%), married (50.9%), aged over 61 years (36.8%), and had primary school education (34.3%). A substantial proportion were unemployed (40.4%). This highlights the need for tailored services considering gender, age, marital status, education level, and employment status. Breast cancer was the most prevalent (49.8%), followed by prostate cancer (20.6%). Chemotherapy was the most common treatment (50.9%), while radiotherapy was less prevalent (2.9%). This informs service planning and design of support programs suited to prevalent cancers and treatments.

Most caregivers were female (74.2%), had 2 years’ experience (39%), and held diploma education qualification (78%). The predominance of female caregivers points to potential gender patterns in caregiving roles. Their experience levels emphasize the need for tailored training. Among clinicians, there was one female and four males, indicating a gender imbalance. Their experience ranged from 7 to 2 years, highlighting the need to consider varying expertise in service design. Education levels was mostly higher diplomas, although other had bachelor and master’s degree, showing clinicians were qualified, but ongoing training and professional development is still valuable.

5.2.3 Psychological Well-Being of Cancer Patients

The study reveals that 71.5% of cancer patients reported leading purposeful and meaningful lives, indicating resilience. However, 15.1% expressed dissent, highlighting the need for tailored interventions. 66.4% of participants emphasized their engagement in daily activities and their contribution to others' well-being. Social relationships were crucial, with 72.6% feeling supported and respected. 56.6% of participants expressed competence in daily activities, while 59.6% felt they lived a good life despite cancer challenges.

Overall optimism (72.9%) is crucial for long-term well-being. Support groups and social networks were identified as key themes, emphasizing shared experiences and emotional connections. The study emphasizes the importance of a holistic approach considering emotional, informational, and practical needs. Caregivers and clinicians provided suggestions for enhancing psychosocial interventions in oncology clinics, including staff training, counseling services, caregiver support, and community engagement. The overall results indicate moderate level of psychological wellbeing of cancer patients with notable gaps for improvements.

5.2.4 Individual Counselling and Psychological Wellbeing of Cancer Patients

The investigation on the influence of individual counseling on the psychological well-being of cancer patients yielded significant findings regarding the effectiveness and areas of improvement in therapy. Notably, 64.0% of participants acknowledged positive experiences, particularly regarding the focus on their strengths and potentials, while 31.5% expressed dissent and 4.7% moderately agreed, indicating the necessity for a more tailored approach. Regarding problem-solving assistance, 50.7% found it helpful, yet 27.4% perceived it as lacking. Similarly, motivational strategies received varied responses, with 46.5% agreeing, 30.0% disagreeing, and 23.5% moderately agreeing, highlighting the need for additional approaches to address patients' unique challenges. These findings underscore the importance of enhancing clinician-patient communication and adapting therapeutic approaches.

Moreover, caregiver-focused discussions highlighted crucial themes such as emotional well-being, coping strategies, and social support. Suggestions for improvement from both clinicians and patients revolved around areas such as professional development (mentioned by 58.5% of respondents), infrastructure enhancement, patient-centered care, and positive communication. The study findings emphasize the importance of ongoing reflection and assessment to optimize therapeutic outcomes and enhance the overall well-being of individuals affected by cancer.

5.2.5 Family Counselling and Psychological Wellbeing of Cancer Patients

The study on family counselling's influence on the psychological well-being of cancer patients in oncology clinics reveals a predominantly positive influence on various aspects. In this study, increased family engagement in discussions regarding dietary considerations (64.3% agreement) and medications and recovery (59.9% agreement) underscores the importance of personalized approaches to accommodate diverse family dynamics. Positive responses for family mutual support (55.6% agreement), encouragement from family members (46.2% agreement), and overall enhanced family support (44.1% agreement) highlight the crucial role of family counselling in strengthening familial bonds during cancer treatment, urging healthcare professionals to acknowledge diverse family needs.

Improved communication and understanding within families emerge as positive outcomes, supported by statements on enhanced communication (42.6% agreement) and confidence in sharing emotions without judgment (41.8% agreement). Empowerment and informed decision-making are also prominent themes, with positive perceptions on treatment adherence (58.1% agreement), informed decision-making (47.0% agreement), and empowerment leading to improved treatment management (48.4% agreement). However, variations in experiences and perceptions suggest the need for a holistic approach, incorporating personalized interventions and open communication. The statistical analysis conducted indicates a positive and statistically significant relationship between family counselling and the psychological well-being of cancer patients, emphasizing the significant influence of family counselling practices on patients' well-being.

The findings from focused group discussions revealed four overarching themes: comprehensive well-being, knowledge and understanding, stigma reduction and a supportive environment, and practical support and collaboration. Holistic support, covering emotional, social, nutritional, financial, and spiritual aspects, is crucial in family counselling. Clinicians emphasized family counselling's role in enhancing psychological well-being through support systems, decision-making, family harmony, preparedness for outcomes, and stigma management. Suggestions for improvement include comprehensive family involvement, patient-centered counselling, continuous training for counselors, and empowerment initiatives, highlighting the multifaceted role of family counselling in addressing diverse dimensions of well-being for cancer patients and their families.

5.2.6 Support Group and Psychological Wellbeing of Cancer Patients

In this variable, participants emphasized the importance of familial bonds, with a majority considering the enhancement of relationships with caregivers and family members through support groups as 'Very Important' (2.20 mean). Notably, while sharing health and emotional experiences within support groups was perceived as significant, there was a gap between expectations and perceived value. The findings also show that support groups were recognized for their role in stigma reduction, although diverse attitudes within the study cohort were noted. Additionally, participants highlighted the importance of guidance and counselling within support groups, suggesting a need for trained facilitators to address diverse emotional needs.

Furthermore, participants attributed their physical, emotional, and spiritual stability to support group participation, indicating a strong overall endorsement of the holistic benefits. Privacy concerns during support group interactions were deemed important, emphasizing the need for a confidential and secure environment. However, regarding problem-solving, a minority of cancer patients felt that support group participation was crucial, indicating room for improvement. Both inferential and qualitative findings underscored the positive influence of support groups on psychological well-being, emphasizing survivor narratives as catalysts for inspiration and tangible assistance beyond emotional support.

Thematic categories for improvement highlighted the need for enhanced support group infrastructure, empowered support group dynamics, holistic patient care approaches, and the creation of supportive environments. Overall, there was a notable convergence on the importance of familial relationships within support groups, shared experiences, stigma reduction, guidance and counselling, holistic benefits, privacy concerns, and areas for improvement among both quantitative and qualitative findings.

5.2.7 Psycho-education and psychological well-being of cancer patients

The findings on psycho-education demonstrates a significant influence on the psychological well-being of cancer patients attending oncology clinics in Meru County, Kenya, with an aggregate mean of 2.6 indicating a notable consensus. Specifically, 65.7% rated psycho-education on the nature of cancer illness as very important, and 66.8% emphasized the significance of understanding cancer therapy options. The same was confirmed by inferential statistical results which indicated significant influence. This underscores the importance placed on practical knowledge about treatment and disease management among respondents.

Furthermore, psycho-education extends beyond medical information to address emotional and psychological aspects of cancer care, fostering acceptance, confidence, and preparedness for the future. It significantly raises awareness about cancer, reduces stigma, and promotes informed decision-making. To enhance psycho-education, the findings emphasized the need for comprehensive patient education, improved infrastructure and resources, clear organizational policies, and accessible and affordable counselling services.

Overall, the findings highlight a convergence between quantitative and qualitative data, emphasizing the universal emphasis on psycho-education, holistic approach, and the importance of infrastructure and accessibility in promoting the well-being of cancer patients.

5.2.8 Moderating Influence of Financial Constraints

The findings show that financial constraints significantly moderates the relationship between the psychosocial interventions psychological well-being of cancer patients. There was a general consensus across various dimensions of financial challenges. A majority (71.8%) expressed concern about inadequate savings and assets to cover treatment expenses, while 43.0% are dissatisfied with their financial situation, contributing to stress. Additionally, 53.1% report that medical expenses exceed expectations, and 36.5% are concerned about job security, exacerbating financial distress. Government intervention, financial assistance programs, and insurance education are suggested to be part of the solutions to alleviate these challenges.

It was noted that the financial limitations not only impede timely access to healthcare but also have profound emotional and psychological consequences. Patients facing economic difficulties experience depression, self-stigmatization, and lower self-esteem, affecting their overall well-being and treatment adherence. To address these challenges, comprehensive efforts involving government, healthcare providers, NGOs, and the community are necessary. Collaboration with NGOs, awareness campaigns, and financial assistance programs were recommended to mitigate the negative effects of financial constraints on cancer patients. Both quantitative and qualitative data highlight the need for integrated interventions to address financial burdens and improve access to healthcare services for cancer patients.

5.3 Conclusions

The findings of the study led to development of conclusions as detailed in the subsequent sub-sections. The conclusion are presented according to variables of the study.

5.3.1 Psychological Well-Being of Cancer Patients

The study concludes that while the majority of cancer patients exhibit positive well-being, there remains a need to address the concerns of individuals expressing disagreement or uncertainty, particularly regarding perceived respect from others and competence in daily activities. Suggestions provided by cancer patients, caregivers, and clinicians emphasize the necessity of a holistic approach to psychosocial interventions, including creating support networks, providing comprehensive education, personalized care, and addressing financial burdens.

The study calls for tailored interventions that consider emotional, informational, and practical needs, highlighting the importance of staff training, free counseling services, strengthened healthcare infrastructure, improved caregiver support, community engagement, and a well-equipped and motivated healthcare workforce to ensure a sustainable psychosocial support system. The oncology clinics should consider integrating psychosocial interventions into cancer care and treatment. Overall, the findings advocate for a patient- centered approach that prioritizes individual needs and underscores the importance of a comprehensive support system for enhancing the psychological well-being of cancer patients in Meru County.

5.3.2 Individual Counselling and Psychological Wellbeing of Cancer Patients

The findings on individual counseling versus the psychological well-being of cancer patients emphasizes the importance of tailored and flexible approaches in counseling interventions. While the majority of participants reported positive experiences, a significant percentage expressed the need for personalized strategies, highlighting the necessity for clinicians to prioritize individualized interventions. Incorporating practical problem-solving strategies within counseling sessions is also crucial, as many participants felt unsupported in managing cancer-related challenges. Moreover, addressing motivational aspects and fostering trust and confidentiality emerged as key areas for improvement. The study advocates for a holistic, patient-centered approach to counseling that adapts to the diverse needs and preferences of cancer patients, ultimately enhancing their psychological well-being in Meru County, Kenya.

5.3.3 Family Counselling and Psychological Wellbeing of Cancer Patients

The study concludes that family counselling significantly enhances the psychological well- being of cancer patients by positively influencing family dynamics, engagement in health discussions, and strengthening family bonds. The findings underscore the importance of integrating family counselling into comprehensive cancer care, emphasizing its role in facilitating informed decision-making and promoting a supportive environment for patients and their families. The healthcare professionals are encouraged to prioritize and tailor family counselling interventions to address the diverse needs of families coping with cancer, ultimately contributing to improved patient outcomes and quality of life. Areas for improvement include comprehensive family involvement, patient-centered approaches, training and competency development, and education and awareness initiatives for families, highlighting the need for continuous improvement and empowerment of family members in the cancer care process.

5.3.4 Support Group and Psychological Wellbeing of Cancer Patients

The study underscores the significant role of support group in enhancing the psychological well-being of cancer patients through strengthening familial bonds, reducing stigma, providing holistic benefits, and addressing privacy concerns. While support groups offer valuable support, there are areas for improvement, including creating more opportunities for shared experiences, optimizing emotional support utilization, and tailoring problem-solving approaches. Recommendations such as enhancing resources, patient empowerment, and integrating clinical assessments can optimize the effectiveness of support groups in cancer care. Overall, the study emphasizes the importance of a holistic approach to support group dynamics and highlights the need for improvement to maximize their influence in oncology clinics.

5.3.5 Psycho-education and Psychological Wellbeing of Cancer Patients

The study concludes that psycho-education significantly influence the psychological well- being of cancer patients in Meru County, with strong consensus among respondents regarding the importance of education on various aspects of cancer. Notably, psycho- education on the nature of cancer illness, therapy, psychological support, medication, and diet received substantial endorsement, highlighting the demand for comprehensive knowledge about treatment options and the disease process. Thematic analysis further underscores the transformative power of information, emphasizing the need for a patient- centered approach that addresses diverse needs throughout the cancer journey, focusing on education, infrastructure, organizational policies, and accessibility of support services.

5.3.6 Moderating Influence of Financial constraints

The study highlights significant financial distress among cancer patients attending oncology clinics in Meru County, with participants expressing dissatisfaction with their financial situations and concerns about job security, income, and preparedness. This distress is exacerbated by unexpected medical expenses, leading to emotional consequences such as depression, self-stigmatization, and compromised mental health. Financial constraints also contribute to delayed treatments and poor adherence to medications, underscoring the importance of access to healthcare services. To address these challenges, the study emphasizes the need for government intervention, infrastructure development, collaboration with NGOs and churches, awareness initiatives, and financial assistance programs to support cancer patients in managing their financial burdens and enhancing their overall well-being.

5.4 Recommendations on Study Findings

The came up with particular recommendations based on the findings reported in chapter four. The recommendations are presented below as per variables of the study.

5.4.1 Psychological Well-Being of Cancer Patients

The study recommends enhancing the psychological well-being of cancer patients in

Meru County through tailored psychosocial interventions that focus on individual experiences and patient-centered care in oncological clinics. It emphasizes strengthening social support networks via enhanced support groups and community engagement to foster emotional resilience and belonging. The study also advocates for community education initiatives to reduce the social stigma of cancer, urging the Ministry of Health to lead these efforts. This includes establishing and enhancing support group programs and launching education campaigns. Additionally, the importance of comprehensive information, regular individual and family counseling sessions in oncology clinics, and training for clinicians is highlighted. The Ministry of Health is encouraged to ensure a well-trained and incentivized healthcare workforce and to create dedicated counseling spaces in cancer clinics to meet the emotional and informational needs of patients effectively.

5.4.2 Individual Counselling and Psychological Wellbeing of Cancer Patients

The study underscores the need for a personalized and flexible approach in cancer care, advocating for tailored interventions that include customized counseling involving patients and their families, home visits, and timely checkups during critical treatment stages. It calls for investment in infrastructure like dedicated counseling rooms in oncology clinics to enhance trust and communication. The study also recommends integrating practical problem-solving strategies and collaborative goal-setting into counseling, along with diversifying therapeutic approaches to optimize benefits. The study also notes a need for clinicians to concentrate more on treatment adherence than on other psychological problems. This aspect should be left to psychologists. Emphasizing the importance of trust, confidentiality, and counselor's continuous professional development, it stresses maintaining a positive demeanor in counseling sessions. The Ministry of Health is urged to collaborate with healthcare providers to enhance infrastructure, offer training, and promote patient-centered counseling in Meru County.

5.4.3 Family Counselling and Psychological Wellbeing of Cancer Patients

The findings highlight the need for personalized family counseling approaches in cancer care that address the specific dietary, recovery, and coping needs of each family, acknowledging their unique dynamics. Health facilities should prioritize effective, tailored communication during counseling sessions to create a safe and supportive environment. Psychologists must ensure that all family members feel heard and understood. Clinicians, psychologists, and caregivers should focus on empowering cancer patients and their families, facilitating informed decision-making. This includes tailoring counseling sessions, providing comprehensive information, and encouraging active family participation in treatment decisions to improve adherence to care plans. Additionally, a holistic approach to reducing stigma and enhancing relationships should be integrated into family counseling, with interventions that cater to individual experiences and expectations.

5.4.4 Support Group and Psychological Wellbeing of Cancer Patients

The study indicates the necessity for oncology clinics to incorporate family-focused support services into their cancer care programs, with an emphasis on strengthening patient-caregiver relationships through support groups. Clinics should involve families in the treatment process and enhance support group activities that facilitate the sharing of health and emotional experiences, thereby enhancing emotional well-being. They should also implement educational initiatives to combat societal stigma around cancer.

The Ministry of Health, along with other stakeholders, is urged to establish accessible support structures in oncology clinics, particularly ensuring the availability of support groups in each level four health facility in Meru County. Clinics should empower support groups by selecting leaders, fostering active participation, and using survivor testimonies to inspire hope. Collaborations with NGOs and FBOs are recommended to provide training, education, and financial support. Additionally, clinics should improve support group infrastructure and create empathetic and supportive environments that address the comprehensive health needs of cancer patients.

5.4.5 Psycho-education and Psychological Wellbeing of Cancer Patients

The study emphasizes the importance of psycho-education in cancer care, advocating for tailored educational programs that address the unique needs of individual families and stages of cancer. To enhance the impact and relevance of these programs, oncology clinics should involve training psycho-educationists and strengthening all aspects of psycho-education, including personalized patient education and dietary choices.

Infrastructure and resources are crucial for effective psycho-educational programs. Recommendations include allocating dedicated spaces within health facilities, ensuring adequate staffing, and providing incentives for both patients and staff to encourage participation and maintain a motivated workforce. Furthermore, organizational policies and support systems play a vital role in creating a trustworthy psycho-educational environment. Ensuring the accessibility and affordability of counseling services is essential, making mental health support available to all, regardless of financial status, and removing barriers to accessing cancer care and psycho-education.

5.4.6 Financial Constraints

The study highlights the need for governmental action to alleviate financial pressures on cancer patients, who are significantly burdened by medical expenses and insufficient coverage. It recommends that the government expand the National Health Insurance Fund (NHIF) to cover a wider range of cancer-related expenses, subsidize nutritional supplements, and establish supportive financial structures such as hospital kits or patient savings and credit cooperatives (SACCOs) specifically for cancer care.

The lack of financial resources can delay diagnosis and compromise treatment outcomes. To improve access and efficiency in cancer care, the government should ensure the availability of radiotherapy facilities in all level five hospitals, reducing travel costs for patients. Collaboration with NGOs and churches is advised to help fund essential medical equipment like chemotherapy and radiotherapy machines, alleviating some of the financial burdens. Furthermore, the government should enhance community awareness and education regarding cancer, promoting alternative insurance schemes, encouraging registration for medical insurance, and disseminating information on cancer detection and prevention to enable early diagnosis and lessen the economic impact on patients.

5.5 Implications of the Findings on Theories, Practices and Policies

This section covers implication of the findings on theories, practices and policies in that order.

5.5.1 Implications of the Findings on Theories

The findings of this study have several implications on Bandura's social cognitive theory and Rogers' person-centered theory. Bandura's theory, which emphasizes observational learning, self-efficacy, and social influence, aligns with the study's findings on patients leading purposeful, meaningful lives with self-efficacy. The study suggests that social cognitive processes shape perceptions of challenges, and tailoring interventions to build self-efficacy acknowledges patients as active agents influencing their well-being. The emphasis on tailored, personalized approaches in individual counseling resonates with Bandura's view of patients as active agents in their own development and the reciprocal relationship between behavior, personal factors, and the environment.

Regarding Rogers' person-centered theory, the study's findings on supportive social relationships align with the emphasis on empathetic relationships boosting well-being. The findings underscore Rogers' concept of unconditional positive regard for individual experiences. The recommendations for active listening and personalized care align with Rogers' person-centered approach. The study also suggests that for individual counseling, flexible personalized approaches directly reflect principles of patient-centered care that engage individuals as partners and respect patient autonomy. For family counseling, the themes of holistic support, tailored education, reduced stigma, and patient involvement in decision-making resonate with principles of patient-centered care and Rogers' person- centered theory. The emphasis on empowerment and nurturing relationships reinforces these frameworks. The study also points out areas for improvement in both theories, such as integrating cultural considerations, explicitly incorporating coping strategies learned from unique patient situations, and considering societal and cultural influences on psychological well-being.

5.5.2 Implications of the Findings on Practices

The study underscores the importance of tailored psychosocial interventions in oncology clinics, emphasizing the need for interventions that account for individual variations in resilience and psychological well-being. Key recommendations include enhancing social support networks through support groups and community initiatives, and providing comprehensive information and education to bolster patient-provider relationships.It suggests that individual counseling should be adaptive, incorporating comprehensive assessments, problem-solving strategies, and motivational techniques. There is also a call for a diversified range of therapeutic modalities, maintaining confidentiality, building trust, and encouraging continuous professional development for healthcare providers.

Family counseling should take a holistic approach, addressing emotional, social, nutritional, financial, and spiritual needs, and should integrate regular evaluations, continuous improvement, and education initiatives. For support groups, the study advocates for family-centered services, privacy, collaboration with external entities, and educational efforts to form a comprehensive support system.

Psycho-education should be standardized yet comprehensive, with a focus on universal access, ongoing professional development, and infrastructural improvements. An integrated care approach is recommended, addressing the interconnected financial, psychological, and healthcare challenges faced by patients, including collaborations with financial advisors and flexible work arrangements for patients. The study also advises that employers and policymakers implement workplace financial support programs, and healthcare practices should proactively engage patients in financial discussions, integrating resources for financial planning into routine healthcare services.

5.5.3 Implications of the Findings on Policies

The study highlights the importance of policies supporting tailored psychosocial care for cancer patients, advocating for standardized assessment tools and protocols that aid healthcare providers in delivering personalized support and fostering coping mechanisms. It calls for policies to incentivize the creation of support groups within oncological clinics, with resources allocated for staff training and dedicated spaces. The emphasis is also on standardized educational materials and regular patient communication.

Further recommendations include policies that support continuous professional development for counselors, including training programs and certification incentives, and investments in infrastructure like dedicated counseling rooms. Policies should ensure patient and family-centered care with regular follow-ups, uphold standards for privacy and confidentiality, and promote positive communication in counseling.

Additionally, the study urges policies that integrate comprehensive well-being—including emotional, social, nutritional, financial, and spiritual support—into the cancer care package. Cultural competence training is advocated to address diverse cultural backgrounds in family counseling. Policies should encourage collaboration among healthcare professionals and reduce cancer-associated societal stigma. Finally, policies should support family-centered services, ensure universal access to psycho-education, expand health insurance coverage to include broader cancer-related expenses, and explore funding models to enhance accessibility and quality of care.

5.6 Recommendations for further Studies

Considering the findings presented in this study, the following are suggestions for further studies: A longitudinal study could offer insights into how resilience and coping mechanisms evolve throughout cancer treatment. Examining changes in these factors over time would inform the development of interventions tailored to different phases of the cancer journey.

Further research should investigate specific cultural practices and societal perceptions influencing cancer patients. Understanding these influences would enable interventions tailored to diverse cultural contexts, acknowledging the varied experiences patients bring to their cancer journey.

A focused study on support groups' effectiveness, considering group size, meeting frequency, and facilitation styles, would provide insights for optimizing these resources. Exploring different support group models could enhance their influence on the psychological well-being of cancer patients.

Further studies on individual counselling should explore strategies for tailoring interventions to unique patient needs. Moreover, longitudinal research could assess the long-term influence of counselling, while comparative studies could evaluate diverse therapeutic modalities for cancer counselling.

Systematic investigations into the effectiveness of tailored psycho-education programs versus standardized approaches are vital. A longitudinal study on the influence of psychoeducation on treatment adherence and exploring diverse delivery methods could refine educational strategies.

Investigating the influence of financial education programs on cancer patients' financial preparedness and well-being is crucial. Assessing the effectiveness of interventions like financial literacy workshops and counseling sessions would enhance financial resilience and satisfaction.

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APPENDIXES

Consent Letter

Appendix I: Consent Form

My name is Margaret Ndiah Magambo a Doctor of Philosophy Degree in Counselling Psychology student at Kenya Methodist University. In order to complete my Ph.D. degree, I am carrying out a research on the *influence of psychosocial interventions in enhancing psychological well-being of cancer patients in oncology clinics in Meru County, Kenya.*

Purposes: This study is purely meant for academic purposes. However, findings will be disseminated to relevant authorities and other stakeholders with specific recommendations for improvement of psychosocial interventions.

Benefits: There will be no direct benefits from participating in the study. However, the findings and recommendations of the study will benefit the hospital management in handling patients better and giving them better services and experiences.

Risk: There is no risk whatsoever involved in choosing to participate in this study.

Confidentiality: All information provided during this study will be treated with total confidentiality with regard to the actual person who gives that data.

Right to refuse or withdraw: Your participation in the study is entirely voluntary and therefore, you are free to refuse to take part or withdraw at any stage of this study without any consequences.

Rewards: There is no reward for anyone who chooses to participate in the study. The participation is entirely voluntary. Each participants is asked to avail information freely as part of contribution to community development.

Contact Information: Should you have questions regarding your participation, please contact me on ndiah006@gmail.com. You may also contact my research supervisor at rebecca.wachira@kemu.ac.ke

I am kindly asking you to sign the consent form (below) indicating agreement for you to participate in this study.

Participant's Statement: The above statement regarding my participation in the study is clear to me. I have been given a chance to ask questions and my questions have been answered to my satisfaction. My participation in this study is entirely voluntary. I understand that my records will be kept private and that I can leave the study at any time. I understand that I will not be victimized on service provision whether I decide to leave the study or not and my decision will not affect the way I am treated at this oncology clinic.

Name of Participant………………………………… Date…………………………..

Signature……………………………………….

Investigator's Statement

I, the undersigned, have explained to the volunteer in a language s/he understands the procedures to be followed in the study and the risks and the benefits involved.

Name of

interviewer…………………………………………Date…………………….

Interviewer Signature…………………………………………

Appendix II: The Cancer Patients' Questionnaire

INSTRUCTIONS

Please respond by both ticking (√) and filling the blank spaces provided. Do not indicate your name anywhere in this questionnaire

Part A: Demographic Characteristics of Respondents

1) What is your gender:

a. Male [ ]
b. Female [ ]

2) Indicate your age bracket?

a. 18-20 [ ]

b. 21-30 [ ]

c. 31-40 [ ]

d. 41-50 [ ]

e. 51-60 [ ]

f. 61- and above [ ]

3) For how long have you lived with cancer since it was diagnosed?

a. Less than a year [ ]
b. Between 1- 2 years [ ]
c. Between 2- 5 years [ ]
d. Between 6 -10 years [ ]
e. Between 11-15 years [ ]
f. Between 16 - 20 years [ ]
g. Over 21 years [ ]

4) What is the name of the type of cancer you are suffering from?

- a. Breast [ ]
- b. Prostrate [ ]
- c. Gynecological [ ]
- d. Lung [ ]
- e. Head and neck [ ]
- f. Other, Specify ____

5) What is your cancer stage?

- a. One [ ]
- b. Two [ ]
- c. Three [ ]
- d. Four [ ]

6) What is your marital status?

- a. Single [ ]
- b. Married [ ]
- c. Separated [ ]
- d. Divorced [ ]
- e. Other, Specify ____

7) What is your highest level of education qualification?

- a. Did not finish class eight [ ]
- b. Primary school certificate [ ]
- c. Secondary school certificate [ ]
- d. College certificate [ ]
- e. College diploma [ ]
- f. University undergraduate degree [ ]
- g. Master’s degree [ ]
- h. PhD degree [ ]

i. Other, Specify ____

8) What is your occupational status?

a. Unemployed [ ]

b. Casual employment [ ]

c. Permanent employment [ ]

d. Self-employment [ ]

9) What kind of cancer management have you undergone through?

a. Chemotherapy [ ]

b. Radiotherapy [ ]

c. Both radiotherapy and chemotherapy [ ]

d. Psychotherapy [ ]

e. Other, Specify ____

Part B: Psychological Well-being

10) **Instructions**: Kindly tick or circle one response regarding psychological well-being to indicate how much you agree or disagree with each statement provided in the table. The rating scale is: Strongly Agree = 6, Agree =5, Slightly Agree=4, Moderately Agree
=3, Slightly Disagree=2, Disagree=1, Strongly Disagree 0.

No.	**Statement on psychological well-being of cancer patients**	**Strongly Agree**	**Agree**	**Slightly agree**	**Moderately agree**	**Slightly Disagree**	**Disagree**	**Strongly disagree**
ix.	I lead a purposeful and meaningful life.	[6]	[5]	[4]	[3]	[2]	[1]	[0]
x.	My social relationships are supportive and rewarding	[6]	[5]	[4]	[3]	[2]	[1]	[0]
xi.	I am engaged and interested in my daily activities	[6]	[5]	[4]	[3]	[2]	[1]	[0]
xii.	I am competent and capable to do the activities that are important to me.	[6]	[5]	[4]	[3]	[2]	[1]	[0]
xiii.	I actively contribute to the happiness and well-being of others	[6]	[5]	[4]	[3]	[2]	[1]	[0]
xiv.	I live a good life despite of the cancer disease	[6]	[5]	[4]	[3]	[2]	[1]	[0]

xv.	I am optimistic about my future	[6]	[5]	[4]	[3]	[2]	[1]	[0]
xvi.	People respect me	[6]	[5]	[4]	[3]	[2]	[1]	[0]

11) Suggest ways in which the psychological well-being of cancer patients can be enhanced

Part C: Individual Counselling

12) **Instructions**: Kindly tick or circle one response regarding individual counselling to indicate how much you agree or disagree with each statement provided in the table below. The rating scale is: Strongly Agree = 4, Agree=3, Moderately Agree =2, Disagree=1, Strongly Disagree 0.

No.	**Statement on Individual counselling**	**Strongly Disagree**	**Disagree**	**Moderately Agree**	**Agree**	**Strongly Agree**
	The clinician focused on my potentials and strengths	[4]	[3]	[2]	[1]	[0]
	I was helped to find solutions to the problems that developed due to my cancer disease	[4]	[3]	[2]	[1]	[0]
	I am motivated and able to address and solve the cancer disease challenges that I face	[4]	[3]	[2]	[1]	[0]

	What I usually do during therapy gives me new ways of looking at my problem.	[4]	[3]	[2]	[1]	[0]
	I feel securely attached to my family and or care giver as a result of counselling	[4]	[3]	[2]	[1]	[0]
	I am able to reflect on what might be most difficult and how I feel compared to when I started counselling	[4]	[3]	[2]	[1]	[0]
	There are no aspects of the therapists that seems to interfere with my counselling	[4]	[3]	[2]	[1]	[0]
	I feel confident to share my emotions and experiences without fear of judgment	[4]	[3]	[2]	[1]	[0]

13) Suggest ways in which individual counselling can be improved to enhance the psychological well-being of cancer patients

Part D: Family Counselling

14) **Instructions**: Kindly tick or circle one response regarding family counselling to indicate how much you agree or disagree with each statement provided in the table below. The rating scale is: Strongly Agree = 4, Agree=3, Moderately Agree =2, Disagree=1, Strongly Disagree 0.

No.	**Statement on family counselling**	**Strongly Disagree**	**Disagree**	**Moderately Agree**	**Agree**	**Strongly Agree**
iii.	The counselling of my family members enabled the making of informed decisions on chemotherapy and other treatment	[4]	[3]	[2]	[1]	[0]
xix.	Family counselling helped in getting more family support	[4]	[3]	[2]	[1]	[0]

xx.	Family counselling empowered my family members, hence there is improved management of cancer treatment	[4]	[3]	[2]	[1]	[0]
xxi.	Family counselling enhanced communication in my family regarding cancer illness and treatment	[4]	[3]	[2]	[1]	[0]
xii.	The love and care I get at home improved after family counselling	[4]	[3]	[2]	[1]	[0]
xiii.	My family members were counseled on hospital admissions arising from cancer illness.	[4]	[3]	[2]	[1]	[0]
xiv.	My attachment to the family improved after family counselling	[4]	[3]	[2]	[1]	[0]
xv.	I feel confident to share my emotions, worries and experiences without fear of judgment of my family members	[4]	[3]	[2]	[1]	[0]
xvi.	My family members were talked to regarding food	[4]	[3]	[2]	[1]	[0]
vii.	The involvement of my family members in my medications and recovery improved after family counselling	[4]	[3]	[2]	[1]	[0]
iii.	My family members have been counseled several times regarding my cancer sickness	[4]	[3]	[2]	[1]	[0]
xix.	Family counselling has assisted in enhancing my recovery and coping with trauma and worries	[4]	[3]	[2]	[1]	[0]
xx.	After receiving family counselling, my family members look for solutions to the problems that came up due to my cancer illness	[4]	[3]	[2]	[1]	[0]
xxi.	Family counselling has assisted me to adhere to cancer treatment	[4]	[3]	[2]	[1]	[0]
xii.	Family mutual support improved after the family counselling	[4]	[3]	[2]	[1]	[0]

iii.	The encouragement that I receive from family members improved after the family counselling	[4]	[3]	[2]	[1]	[0]
xiv.	Family counselling has helped to reduce stigma on cancer	[4]	[3]	[2]	[1]	[0]

15) Suggest ways in which family counselling can be improved to enhance the psychological well-being of cancer patients

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Part E: Support Groups

16) When thinking about your interactions with other support group members how is it important to you in working relationship, experience sharing and stigma reduction?

Instructions: Kindly tick or circle one response for each statement provided in the table below regarding support group to indicate how it is important to you in working.

relationship, experience sharing and stigma reduction. The rating scale is: Very

Important

= 3, somewhat important = 2, slightly important= 1, and Not at all important = 0.

No.	Statements on support group domain	Very Important	Somewhat important	Slightly important	Not at all important
viii.	The use of support groups improves working relationship with my caregiver and family members	[3]	[2]	[1]	[0]
ix.	The use of support groups improve my ability to share my health and emotional experiences	[3]	[2]	[1]	[0]
x.	The utilization of support groups improves stigma reduction	[3]	[2]	[1]	[0]
xi.	I belong to a support group which guide, counsel and encourage me on matters related to cancer	[3]	[2]	[1]	[0]
xii.	Since I joined a support group, I have attained physical, emotional and spiritual stability	[3]	[2]	[1]	[0]
xiii.	Participating in a support group interaction does not interfere with my privacy and confidentiality	[3]	[2]	[1]	[0]
xiv.	My participation in a support group opens up my mind to find appropriate solutions to problems	[3]	[2]	[1]	[0]

17) Suggest ways in which support group counselling can be improved to enhance the psychological well-being of cancer patients

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Part F: Psycho-education

18) How would you rate the importance of Cancer information you received from this oncology clinic?

Instructions: Kindly tick or circle one response for each statement provided in the table below regarding psycho-education to indicate how you would rate the importance of cancer information you received from this oncology clinic. The rating scale is: Very important=3, Somewhat important=2, Slightly important=1, and Not important=0.

No.	**Statements on psycho-education**	**Not important**	**Slightly important**	**Somewhat important**	**Very Important**
viii.	I have been educated concerning the nature of cancer illness	[3]	[2]	[1]	[0]
ix.	I am satisfied with the information given by the clinical officer regarding cancer illness	[3]	[2]	[1]	[0]
x.	I have access to the information regarding cancer therapy	[3]	[2]	[1]	[0]
xi.	Philological education done to me has improved my psychological well-being	[3]	[2]	[1]	[0]
xii.	I am usually provided with information regarding how I should use my medication	[3]	[2]	[1]	[0]
xiii.	Information empowerment has enabled me to find a purpose and hope for living	[3]	[2]	[1]	[0]
xiv.	Psycho-education has promoted my self-awareness	[3]	[2]	[1]	[0]
xv.	Psycho-education has enabled me to improve my diet	[3]	[2]	[1]	[0]

19) Suggest ways in which psycho-education can be improved to enhance the psychological well-being of cancer patients

PART G: Financial Constraints

COST- FACIT (VERSION 1)

20) Suggest ways in which financial constraints can be addressed to enhance the psychological well-being of cancer patients

21) Kindly tick or circle one response for each statement provided in the table below regarding financial constraints to indicate your rating on aspects of finances and cancer treatment and management. The rating scale is: Very much =4, Quite a bit =3, Somewhat =2, A little bit =1 and Not all = 0.

No.	**Statements on financial constraints**	**Very much**	**Quite a bit**	**Some what**	**A little bit**	**Not all**
xii.	I know that I have enough money in saving, retirement and assets to cover my treatment	[4]	[3]	[2]	[1]	[0]
xiii.	My out of pocket medical expenses are more than I thought they would be	[4]	[3]	[2]	[1]	[0]
xiv.	I don’t worry about the financial problems I will have in the future as a result of my illness or treatment	[4]	[3]	[2]	[1]	[0]
xv.	I feel I have options and choices about the money I spend on cancer care	[4]	[3]	[2]	[1]	[0]
xvi.	I do not feel frustrated that I cannot work or contribute as much as I usually do	[4]	[3]	[2]	[1]	[0]
xvii.	I am satisfied with my current financial situation	[4]	[3]	[2]	[1]	[0]
xviii.	I am able to meet my monthly expenses	[4]	[3]	[2]	[1]	[0]
xix.	I am not financially stressed	[4]	[3]	[2]	[1]	[0]
xx.	I am concerned about keeping my job and income ,including work at home	[4]	[3]	[2]	[1]	[0]
	My cancer illness and treatment has not reduced my satisfaction with my present financial situation	[4]	[3]	[2]	[1]	[0]
	I feel in control of my financial situation	[4]	[3]	[2]	[1]	[0]

Appendix III: Interview Schedule for Oncology Clinicians

Section A: Background Information

1. Gender of respondent
2. Experience, how long one has been working on at oncology clinics
3. Highest level of education

Section B: Individual Counselling

4. Share with me the ways in which individual counselling enhances psychological well-being of cancer patients.
5. Suggest ways in which individual counselling can be improved at oncology clinics to enhance the psychological wellness of cancer patients

Section C: Family Counselling

6. From your own experience, how does family counselling enhance psychological well-being of cancer patients?
7. In what ways can family counselling be improved at oncology clinics to enhance the psychological well-being of cancer patients?

Section D: Support Groups

8. There is hypothesis that cancer patients that attend support groups improve on their psychological well-being: Kindly share your experience and comments on these.
9. Suggest ways in which support group counselling can be improved at oncology clinics to enhance the psychological well-being of cancer patients.

Section E: Psycho Education

10. Considering that information is shared with cancer patients, how does psycho education enhance psychological well-being of cancer patients?
11. In what ways can psycho-education be improved at oncology clinics to enhance the psychological well-being of cancer patients

Section F: Finance Constraints

12. Explain how finance constraints affects the provision of psychosocial interventions towards addressing psychological well-being of cancer patients. Anything else you wish to talk about?
13. Suggest ways in which financial constraints can be addressed to enhance the psychological well-being of cancer patients.

Section G: Psychological Wellness of Cancer Patients

14. Share with me other ways that can be considered to enhance the psychological well- being of cancer patients at oncology clinics in Meru County.

Appendix IV: FGD Schedule for Cancer Patients Care Givers

Section A: Background Information

1. Gender of respondent
2. Experience, how long one has been working on at oncology clinics
3. Highest level of education

Section B: Individual Counselling

1) How has individual counselling been of help to your patient in terms of enhancing psychological well-being**?**

Section C: Family Counselling

2) Having received family counselling service, share your thoughts and feelings on family counselling in enhancing psychological well-being of cancer patients.

Section D: Support Groups

3) From your own experience, what is the influence of support group in enhancing the psychological well-being of your patients?

Section E: Psycho Education

4) How does psycho education enhance psychological well-being of your patient?

Section F: Finance Constraints

5) How does finance constraints affect the provision of psychosocial interventions and improvement of psychological well-being of your patient?

Section G: Psychological Wellness of Cancer Patients

6) What do you think should be done at oncology clinics to improve the provision of psychosocial interventions to enhance the psychological well-being of cancer patients

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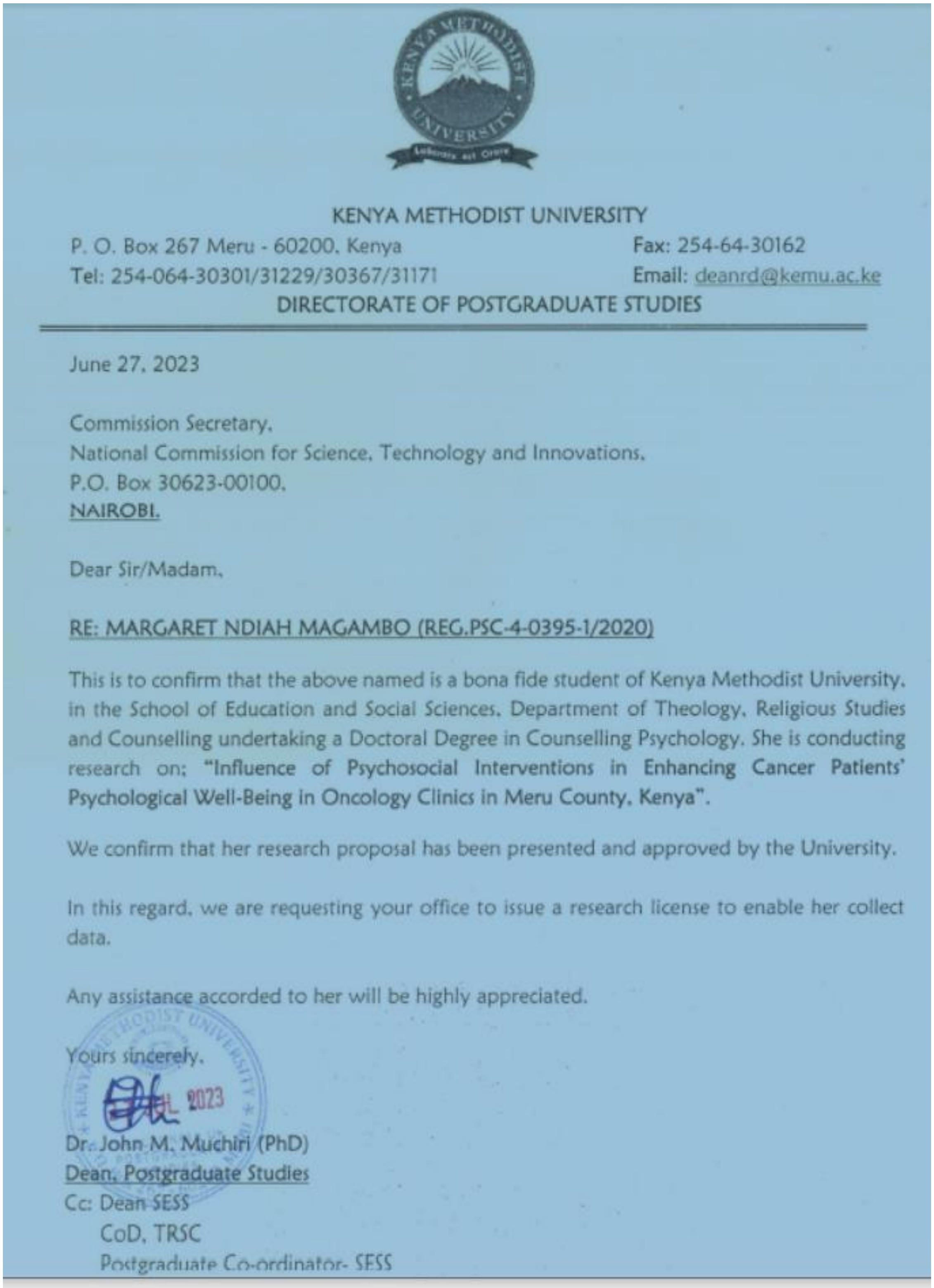
Appendix V: Introduction Letter from KeMU



KENYA METHODIST UNIVERSITY
P. O. Box 267 Meru - 60200. Kenya
Tel: 254-064-30301/31229/30367/31171
Fax: 254-64-30162
Email: deanrd@kemu.ac.ke
DIRECTORATE OF POSTGRADUATE STUDIES

June 27. 2023

Commission Secretary.
National Commission for Science. Technology and Innovations.
P.O. Box 30623-00100.
NAIROBI.

Dear Sir/Madam.

RE: MARGARET NDIAH MAGAMBO (REG.PSC-4-0395-1/2020)

This is to confirm that the above named is a bona fide student of Kenya Methodist University. in the School of Education and Social Sciences. Department of Theology. Religious Studies and Counselling undertaking a Doctoral Degree in Counselling Psychology. She is conducting research on: **"Influence of Psychosocial Interventions in Enhancing Cancer Patients' Psychological Well-Being in Oncology Clinics in Meru County. Kenya"**.

We confirm that her research proposal has been presented and approved by the University.

In this regard. we are requesting your office to issue a research license to enable her collect data.

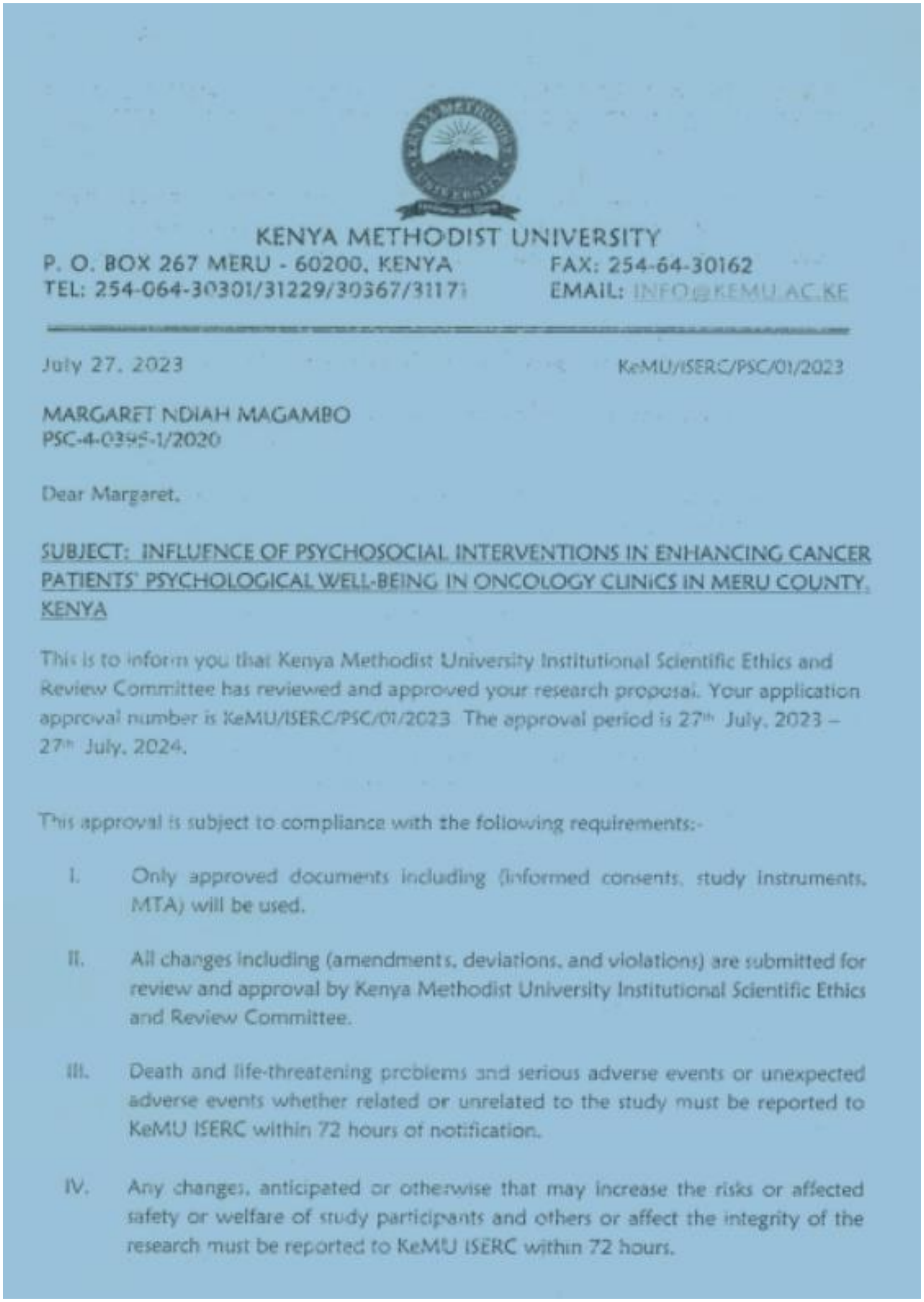
Any assistance accorded to her will be highly appreciated.

Yours sincerely.

L 2023

Dr. John M. Muchiri (PhD)
Dean. Postgraduate Studies
Cc: Dean SESS
CoD. TRSC
Postgraduate Co-ordinator- SESS

Appendix VI: Ethical Clearance Letter



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July 27, 2023

KeMU/ISERC/PSC/01/2023

MARGARET NDIAH MAGAMBO
PSC-4-0395-1/2020

Dear Margaret,

SUBJECT: INFLUENCE OF PSYCHOSOCIAL INTERVENTIONS IN ENHANCING CANCER PATIENTS' PSYCHOLOGICAL WELL-BEING IN ONCOLOGY CLINICS IN MERU COUNTY, KENYA

This is to inform you that Kenya Methodist University Institutional Scientific Ethics and Review Committee has reviewed and approved your research proposal. Your application approval number is KeMU/ISERC/PSC/01/2023. The approval period is 27th July, 2023 – 27th July, 2024.

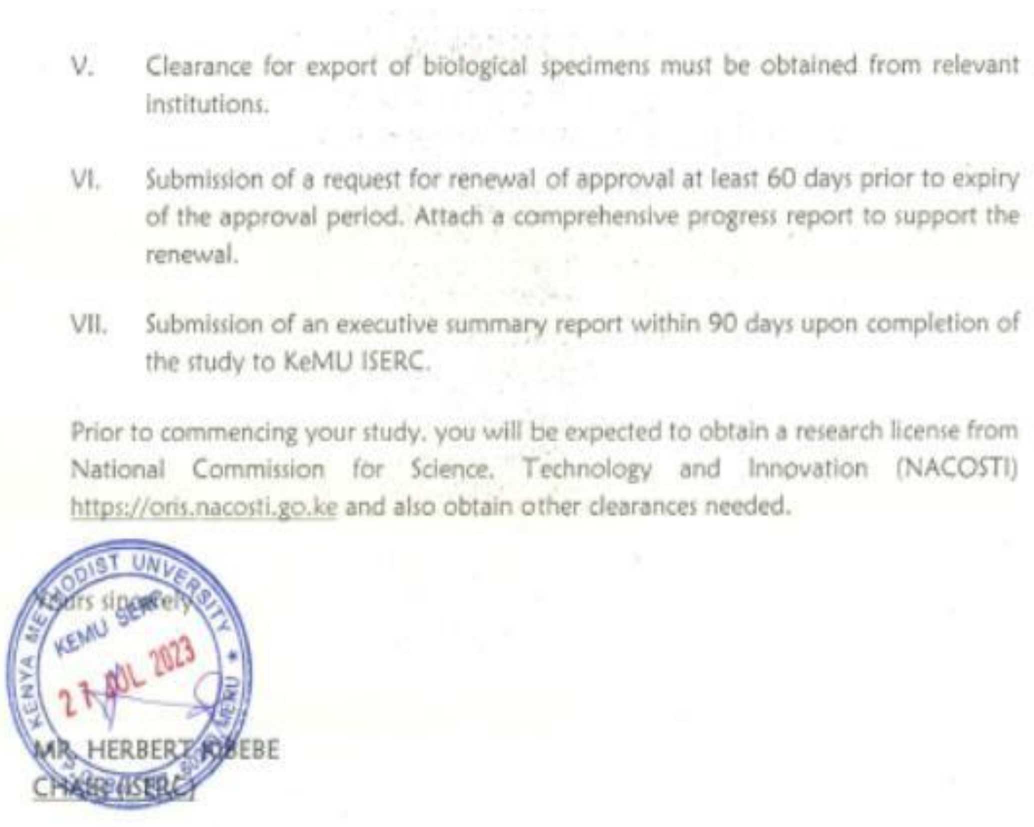
This approval is subject to compliance with the following requirements:-

I. Only approved documents including (informed consents, study instruments, MTA) will be used.

II. All changes including (amendments, deviations, and violations) are submitted for review and approval by Kenya Methodist University Institutional Scientific Ethics and Review Committee.

III. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to KeMU ISERC within 72 hours of notification.

IV. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to KeMU ISERC within 72 hours.



V. Clearance for export of biological specimens must be obtained from relevant institutions.

VI. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.

VII. Submission of an executive summary report within 90 days upon completion of the study to KeMU ISERC.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) https://oris.nacosti.go.ke and also obtain other clearances needed.

Yours sincerely

KEMU SERC
27 JUL 2023

MR. HERBERT KIBEBE
CHAIR (ISERC)

Appendix VII: NACOSTI Research Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY & INNOVATION

Ref No: 337761

Date of Issue: 02/August/2023

RESEARCH LICENSE

This is to Certify that Ms.. Ndiah Magambo Margret of Kenya Methodist University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Meru on the topic: INFLUENCE OF PSYCHO-SOCIAL INTERVENTIONS IN ENHANCING PSYCHOLOGICAL WELL-BEING OF CANCER PATIENTS IN ONCOLOGY CLINICS IN MERU COUNTY, KENYA for the period ending : 02/August/2024.

License No: NACOSTI/P/23/28378

337761

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY &
INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document,
Scan the QR Code using QR scanner application.

See overleaf for conditions