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## **Gender Responsive Monitoring and Evaluation Process and Performance of Cancer Care Programs in Nairobi City County, Kenya**

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### **ABSTRACT**

The effective performance of cancer care programs is a critical public health priority, particularly in urban settings like Nairobi County, where service delivery challenges are prevalent. This study examined the influence of Gender Responsive Monitoring & Evaluation (GRM&E) processes—specifically GRM&E Planning, Data Collection, Data Analysis, and Data Utilization—on the performance of cancer care programs in Nairobi City County, Kenya. The research was guided by the need to understand how integrating a gender perspective into M&E can lead to more equitable, effective, and sustainable health outcomes. Adopting Explanatory sequential mixed method design, the study targeted a population of 167 respondents across the 35 cancer care programs in Nairobi City County. This population included health sector officials, M&E staff, and technical personnel involved in program implementation. Data was primarily collected using a self-administered questionnaire. The research instrument demonstrated high reliability, achieving a Cronbach's alpha of over 0.70. Data analysis employed both descriptive statistics (frequencies, percentages, means, and standard deviations) and inferential statistics (Pearson correlation and simple and multiple linear regression). Five null hypotheses were tested at a 0.05 level of significance. The findings revealed a significant positive relationship between each of the four GRM&E process dimensions and the performance of the cancer care programs. Specifically, the study found that GRM&E Planning, Data Collection, Data Analysis, and Data Utilization each had a statistically significant influence (all  $p < 0.05$ ). The combined effect of all four GRM&E processes on performance was found to be substantial and highly statistically significant ( $R^2 = 0.585$ ,  $p < 0.05$ ), collectively accounting for approximately 58.5% of the variance in program performance. The study concluded that the full adoption and integration of Gender Responsive M&E processes significantly enhance the performance and equity of cancer care programs. The findings are expected to inform policy formulation and guide health practitioners in implementing evidence-based, and gender-sensitive M&E systems to improve cancer service delivery in Nairobi County and similar devolved health systems.

**Keywords:** Gender responsive M&E process, Performance of Cancer Care Programs, Nairobi County

## INTRODUCTION

### Background of the Study

Cancer is one of the leading causes of death in Kenya (Kitonga, Koskei, Koibarak & Sheets, 2025; Iseme-Ondiek, Abuodha, Ngugi, Abayo, & Saleh, 2025; Busakhala, Atundo, Kiprono, Keitany, Melly, Ruto & Morgan, 2025), currently ranked as the third leading cause of death after infectious and cardiovascular diseases. It contributes significantly to the country's mortality, accounting for a notable percentage of annual deaths and placing a major public health burden on families and the healthcare system. (Kitonga, et al 2025; Iseme-Ondiek, et al, 2025; Busakhala, et al, 2025).

Nairobi is listed as the county with the highest number of cancer cases in Kenya (Korir, Yu Wang, Sasieni, Okerosi, Ronoh & Maxwell Parkin, 2017; Korir, Okerosi, Ronoh, Mutuma & Parkin, 2015; Macharia, Mureithi & Omu, 2018), with a 2021/2022 report indicating it leads in both new cases and cancer deaths, partly due to high urban populations and better reporting in its population-based registry. Reports from the National Cancer Institute of Kenya and the City Cancer Challenge (C/Can) initiative confirm that Nairobi consistently leads in reported cancer cases (Korir, et al 2017; Korir, et al 2015; Macharia, Mureithi & Omu, 2018).

Women are disproportionately affected by cancer in Kenya, with higher rates of breast and cervical cancer, the leading causes of cancer-related deaths and illnesses in women is cervical cancer (Kawuki, Savi, Betunga, Gopang, Isangula & Nuwabaine, 2025; Wambalaba & Wambalaba, 2024; Macharia, Mureithi & Omu, 2018). Financial barriers to care, a lack of public awareness, and late-stage diagnosis brought on by restricted access to screening and treatment are some of the factors that contribute to this burden (Kawuki et al., 2025; Wambalaba & Wambalaba, 2024; Macharia, Mureithi & Omu, 2018).

While women's higher cancer burden is evident in Kenya, especially in Nairobi, there is limited research on cancer's gender aspects (Korir, et al 2017; Korir, et al 2015; Macharia, Mureithi & Omu, 2018). Studies show breast and cervical cancers are major concerns for women, and existing research has examined the pandemic's impact on these women or women's experiences with treatment. However, the specific gendered dimensions of cancer in Kenya, beyond incidence rates for common cancers, require more in-depth, focused research to fully understand the complexities and develop targeted strategies (Korir, et al 2017; Korir, et al 2015; Macharia, Mureithi & Omu, 2018).

To combat the rising cancer burden, Kenya is implementing initiatives like the National Cancer Control Strategy (Manduku, 2020; Karagu, 2018), which focuses on prevention, screening, and improved diagnosis and treatment. Support from the National Cancer Institute, County governments, and partners including the City Cancer Challenge is being directed towards building healthcare capacity through the establishment of chemotherapy centers, promoting early screening programs, enhancing specialized training for healthcare professionals, and improving the National Cancer Registry to provide crucial data for policy and research (Manduku, 2020; Karagu, Ng'ang'a, Kibachio, & Gichangi, 2018).

It is justified to research the relationship between gender-responsive M&E and cancer care

program performance in Kenya, especially given the high cancer burden on women and girls and existing gender disparities in access to and outcomes of cancer services. A gender-responsive approach can improve health outcomes by identifying gender-specific barriers and ensuring inclusive, equitable, and effective cancer programs, leading to better access to early detection, treatment, and supportive care for all.

### **Research Problem**

Evidence shows that the main performance issues Kenyan cancer care programs have to deal with include the absence of infrastructure and resources, the prohibitiveness of treatment, the lack of awareness among the population that results in late diagnosis, and low service coordination (Wambalaba & Wambalaba, 2024; Klootwijk, et al 2025; Adhiambo, et al 2025). A lack of effective service delivery is also caused by geographic concentration of major centers, insufficient supply chains of medicines and lack of trained personnel which also leads to early diagnosis of a large majority of patients in their late stages.

Despite performance challenges of cancer care programs in Kenya (Wambalaba & Wambalaba, 2024; Klootwijk, et al 2025; Adhiambo, et al 2025), multiple studies reveal substantial research gaps in Kenya's cancer care programs, particularly concerning limited data for policy formulation, inadequate financing, insufficient stakeholder collaboration, a lack of comprehensive cancer surveillance, and a need for context-specific health education interventions. These gaps highlight challenges in areas like cancer awareness, health-seeking behaviors, access to screening and diagnostics, and workforce development.

There are limited studies in Kenya specifically examining the impact of gender-responsive monitoring and evaluation (M&E) on cancer care program performance, (Chepkoech, 2024; Sirera, Naanyu, Kussin & Lagat, 2024; Magambo, 2024; Odengo, 2024) though there is evidence of both general M&E influencing project success and documented gender disparities in cancer care access and outcomes within the country. While M&E practices generally improve health services and the specific needs of women are considered in some gender-focused M&E frameworks, research is needed to connect these aspects to the performance of Kenyan cancer programs.

Studies on cancer care programs in Kenya may be less impactful because they sometimes lack strong theoretical grounding, (Kebenei, Nyambane & Mutua, 2024; Kuria, Otieno, Kithuka & Murugi, 2024; Muriithi, 2024) which can stem from a broader issue of insufficient local funding, limited local research capacity, and a focus on foreign collaborations and priorities. The focus on specific foreign funding and partnerships can also result in research that doesn't fully align with Kenya's specific disease burden and needs, hindering the development of truly relevant and effective cancer care programs.

A number of studies on cancer care programs in Kenya highlight various methodological limitations(Chepkoech, 2024; Sirera, Naanyu, Kussin & Lagat, 2024; Magambo, 2024; Odengo, 2024), including small sample sizes in qualitative research, incomplete data collection due to lack of comprehensive cancer registries, reliance on limited public hospital data that misses patients in private facilities, potential for recall and selection biases in patient-based studies, and the inability to establish causality in observational research. These limitations often stem from the specialized nature of cancer care, leading to a lack of statistical representation and hindering the development

of precise population-based rates.

Studies in Kenya investigating cancer care program performance face conceptual research gaps (Wambalaba & Wambalaba, 2024; Klootwijk, et al 2025; Adhiambo, et al 2025) because the specific aspects of "program performance" are not consistently defined or operationalized, leading to a lack of clear, standardized metrics for evaluation. This deficit in defining what constitutes "performance" hinders the ability to develop robust, comparable data and can lead to an incomplete understanding of the effectiveness of interventions.

Arising from performance challenges of cancer care program in Kenya and the substantial research gaps in existing studies, the overarching question is: what is the influence of gender responsive monitoring and evaluation on performance of cancer care programs in Nairobi City County in Kenya?

### **Value of the Study**

The studies on gender-responsive monitoring and evaluation (GRM&E) of the programs to cancer care programs in Nairobi have high policy implications in that they have ensured that the programs are accessible, available, and able to serve all the genders well to cope with differences in access, treatment, and outcomes. It can give valuable information to enhance the program design and implementation that will result in better health, gender equality, and resource allocation efficiency to the overall aim of coordinated cancer control in Kenya that will contribute to the improvement of health among all the citizens.

This research on GRM&E for cancer care in Nairobi contributes to theory by demonstrating the practical application of gender-responsive principles to health programs, challenging existing theories by revealing context-specific barriers to care for women, and informing the development of new, more inclusive theories on health systems and patient outcomes. It tests theories by providing empirical data on how gender influences access to and quality of cancer care, and it elaborates on these theories by refining them with concrete examples of successful and unsuccessful gender-responsive interventions, as well as identifying gaps in current monitoring and evaluation frameworks.

Research on GRM&E for cancer care in Nairobi expands project management by introducing gender-sensitive indicators, demonstrating the importance of gender-responsive planning and evaluation for health projects, and highlighting M&E as a critical factor in connecting program outcomes to health and gender equality goals. It provides practical insights into adapting M&E frameworks for complex health issues, informs evidence-based decision-making for resource allocation, and encourages the development of gender-inclusive health programs by promoting accountability for addressing disparities in cancer care access and outcomes for all genders. This research contributes to the project management body of knowledge by refining M&E theory with gender-responsive practices and to practice by offering concrete, context-specific guidance for managing health projects effectively and equitably in similar settings.

Research on gender-responsive M&E for Nairobi's cancer care programs contribute to new research by providing evidence-based methodologies, identifying gendered barriers, and informing policy and practice for more inclusive and effective health interventions in similar

contexts globally and nationally. This work highlights the specific challenges women face in accessing cancer care, improves program design by ensuring the needs of all gender groups are met, and helps develop standardized, gender-sensitive M&E frameworks applicable to various health programs beyond just cancer care.

## **REVIEW OF RELATED LITERATURE**

### **Theoretical Foundations**

This study grounds cancer care programs research in Intersectionality Theory, Stakeholder Theory, Participatory Governance Theory, and Performance Legitimacy Theory.

#### **Intersectionality Theory**

The framework of intersectionality theory explains how various types of oppression and discrimination, including those based on sexual orientation, gender, race, class, disability, and class, interact and overlap to give people and groups unique experiences of disadvantage and injustice (Crenshaw, 2010; Cho, Crenshaw & McCall, 2013; Lestari & Kurniawan, 2025; Nkealah, 2025). It highlights that these intersecting systems create unique challenges that cannot be understood by examining each form of discrimination in isolation, instead requiring a holistic view to reveal the complexity of power relations and social inequality (Crenshaw, 2010; Cho, Crenshaw & McCall, 2013; Lestari & Kurniawan, 2025; Nkealah, 2025). Intersectionality assumes that people's lives and social experiences are shaped by the overlapping and interacting of multiple social categorizations like race, class, and gender, rather than single factors alone. These intertwined identities create unique forms of privilege and oppression that are context-dependent, requiring multi-level analysis to understand power structures and lived realities (Crenshaw, 2010; Cho, Crenshaw & McCall, 2013; Lestari & Kurniawan, 2025; Nkealah, 2025).

Intersectionality theory is very important for cancer care programs because it shows how having more than one social identity, such as race, gender, socioeconomic status, and age, can make it challenging for patients to get quality cancer care (Estupiñán Fdez. de Mesa, Marcu & Whitaker, 2025; Seven, Pasalak, Grabowski, Moraitis & Bagcivan, 2025; Kgatitswe, 2025). By using an "intersectional lens," programs can better understand these complex barriers to screening, diagnosis, and treatment, leading to more holistic, patient-centered care and more effective, equitable outcomes for diverse and marginalized populations.

Cancer health inequalities arise from intersecting factors such as ethnicity, socioeconomic status, age, and geographical location (Estupiñán Fdez. de Mesa, Marcu & Whitaker, 2025; Seven, Pasalak, Grabowski, Moraitis & Bagcivan, 2025; Kgatitswe, 2025). Intersectionality helps identify how these categories overlap to create distinct forms of disadvantage, such as lower health literacy in ethnic minority groups from deprived areas (Estupiñán Fdez. de Mesa, Marcu & Whitaker, 2025; Seven, Pasalak, Grabowski, Moraitis & Bagcivan, 2025; Kgatitswe, 2025).

#### **Stakeholder Theory**

Applying stakeholder theory to projects stresses taking into account the interests of all parties involved, not just sponsors or shareholders, who may have an impact on or be impacted by the project's outcomes (Freeman, Harrison, Wicks, Parmar & De Colle, 2010; Friedman & Miles, 2002). According to this theory, a project's success rests on adding value for all parties involved, including clients, staff, vendors, and the neighborhood, which will improve long-term performance

and forge closer bonds (Freeman, Harrison, Wicks, Parmar & De Colle, 2010; Friedman & Miles, 2002). This strategy encourages moral decision-making and holistic success beyond merely financial returns, in contrast to traditional shareholder theory, which puts investor interests first. Key assumptions of stakeholder theory in projects are that organizations should create value for all stakeholders, not just shareholders; ethical and normative principles are integral to business; the context of a project shapes stakeholder interests and requires continuous engagement; stakeholders' needs are varied and can evolve over a project's lifecycle; and successful project management involves managing diverse stakeholder relationships to foster trust, achieve sustainability, and improve overall project performance (Freeman, Harrison, Wicks, Parmar & De Colle, 2010; Friedman & Miles, 2002).

Stakeholder theory is relevant in cancer care programs by fostering patient-centered care, enabling better-informed decision-making, ensuring program relevance and uptake, and facilitating strategic planning and capacity building across a diverse range of actors (Remmel, Suija, Markina, Tisler, Kīvīte-Urtāne, Stankūnas & Uusküla, 2025; Matovu, Coleman, Mutungi, Donnelly, Lohfeld, Johnston & McShane, 2025; Morgan, Cira, Karagu, Asirwa, Brand, Lunsford & Duncan, 2018; Bridges, Joy, Blauvelt, Yan & Marsteller, 2015). By engaging various stakeholders – including patients, caregivers, clinicians, administrators, researchers, policymakers, and community partners – cancer programs can improve the quality of care, increase accessibility, and address the complex needs of cancer patients and their families. Including patients and caregivers in the development of interventions, support tools, and quality measures ensures that programs are tailored to their needs and experiential knowledge (Remmel, et al, 2025; Matovu, et al 2025; Morgan, et al, 2018; Bridges, et al, 2015).

### **Participatory Governance Theory**

Participatory governance theory emphasizes involving citizens and non-state actors in public decision-making (Fischer, 2012; Fischer, 2010; Osmani, 2008) to address complex social challenges and improve governance effectiveness and democratic legitimacy. It contrasts with traditional top-down approaches by seeking to empower ordinary people and share power between state and society, fostering collaborative, transformative governance through mechanisms like deliberative forums, citizen input, and two-way communication tools. (Fischer, 2012; Fischer, 2010; Osmani, 2008).

Key assumptions of Participatory Governance Theory are that citizens are capable of contributing meaningfully to governance, that participation enhances democracy and improves policy outcomes, and that governance should be inclusive, transparent, and accountable to foster citizen ownership and trust(Fischer, 2012; Fischer, 2010; Osmani, 2008)t It also assumes that devolving power to local levels can activate citizen participation and that strengthening links between civil society and the state creates robust accountability(Fischer, 2012; Fischer, 2010; Osmani, 2008).

Participatory governance theory is highly relevant to cancer care programs because it fosters patient-centred care, enhances the quality of care by incorporating diverse knowledge and experiences, improves implementation of cancer programs by tailoring them to local realities, and increases patient trust and acceptance of health policies and services(Tremblay, Usher, Bilodeau & Touati, 2025; Fuentes-García, Flores-Figueroa & Castillo-Delgado, 2025; Tremblay, Usher, Bilodeau & Touati, 2025; Tremblay, Touati, Usher, Bilodeau, Pomey & Lévesque, 2021).

Patients, families, and community members possess unique knowledge about their journey and local contexts, which is essential for designing effective care trajectories, identifying barriers to care, and developing culturally appropriate interventions (Tremblay, et al 2025; Fuentes-García, et al, 2025; Tremblay, et al, 2025; Tremblay, et al, 2021). By shifting from top-down decision-making to collaborative approaches, participatory governance enables health systems to become more responsive, equitable, and effective in addressing cancer health disparities. The core concept of patient-centred care is a foundation for effective participation, ensuring that patient needs, values, and experiences are central to cancer care delivery (Tremblay, et al 2025; Fuentes-García, et al, 2025; Tremblay, et al, 2025; Tremblay, et al, 2021).

### **Performance Legitimacy Theory**

Performance legitimacy theory posits that an organization, movement, or leader gains authority and the right to exist by demonstrating successful actions and achieving desired outcomes, (Gulluscio, 2023; Alta'any, Tauringana & Achiyo, 2024; Gagliardi, Lemieux-Charles, Brown, Sullivan, & Goel, 2008; Sonpar, Pazzaglia, & Kornijenko, 2010) rather than through traditional sources like established rules or charisma alone. Its focus is on the tangible results and practical actions that satisfy society's expectations or specific publics, thereby ensuring continued support and resources for the entity (Gulluscio, 2023; Alta'any, Tauringana & Achiyo, 2024; Gagliardi, Lemieux-Charles, Brown, Sullivan, & Goel, 2008; Sonpar, Pazzaglia, & Kornijenko, 2010).

The core assumptions of performance legitimacy theory are that organizations operate under a social contract granted by society, their survival and access to resources depend on maintaining this societal approval, and performance (especially related to social responsibility) is a key tool to demonstrate alignment with social norms and values (Gulluscio, 2023; Alta'any, Tauringana & Achiyo, 2024; Gagliardi, Lemieux-Charles, Brown, Sullivan, & Goel, 2008; Sonpar, Pazzaglia, & Kornijenko, 2010). Organizations must therefore continually adapt their actions to meet evolving societal expectations to avoid sanctions, failure, or revocation of their right to operate.

Performance Legitimacy Theory is relevant to researching the influence of gender-responsive M&E on cancer care programs in Kenya because it helps to explain how effective M&E systems can enhance a program's perceived success and justify its existence, not just through outcomes but also by demonstrating accountability and positive impact on different genders. In cancer care, this theory is essential in comprehending how gender responsive M& E practices can enhance the legitimacy of these programs by advancing the needs and experiences of both men and women in the sense that the program will perform better and be embraced by the entire community.

### **Empirical Literature Review**

#### **Gender Responsive M&E Planning and Performance of Cancer Programs**

GRM&E is a strategic approach to involving the unique needs, rights, and power dynamics of men, women, and gender minority people in the planning, implementation, and evaluation of the programs and system outcomes (Morgan, et al, 2024; Kalbarczyk, Krugman, et al, 2025; Tirivanhu and Jansen van Rensburg, 2018). It is a strategic gathering and examination of sex-disaggregated and gender-sensitive information with the purpose of making programs inclusive, gaps in gender inequalities, and gender equality in addition to better results to everyone outcomes (Morgan, et al, 2024; Kalbarczyk, Krugman, et al, 2025; Tirivanhu & Jansen van Rensburg, 2018).

GRM&E planning intentionally incorporates the differing needs, rights, and power relations among women, men, and gender minority individuals into the monitoring and evaluation process to promote gender equality outcomes (Morgan, et al, 2024; Kalbarczyk, Krugman, et al, 2025; Tirivanhu & Jansen van Rensburg, 2018). Collecting sex-disaggregated data and gender-sensitive indicators, performing gender analysis to comprehend diverse experiences, creating inclusive data collection tools and analytical techniques, and making sure that results are utilized to support equitable outcomes and guide program adjustments are all crucial components (Morgan, et al, 2024; Kalbarczyk, Krugman, et al, 2025; Tirivanhu & Jansen van Rensburg, 2018).

GRM&E is crucial for cancer care programs because it identifies and addresses gender-specific disparities in health outcomes, access, and participation (Garton, Allman, Bae, Duncan, Fadhil, Hammad & Ginsburg, 2025; Karpel, Zambrano Guevara, Rimel, Hacker, Bae-Jump, Castellano & Pothuri, 2025; Triplette, Giustini, Anderson, Go, Scout, & Heffner, 2025). By disaggregating data, considering specific gender needs, and involving diverse populations in the process, gender-responsive M&E ensures that interventions are inclusive, effective, and equitable for all, leading to improved patient care and outcomes for men, women, and gender-diverse individuals. (Garton, et al, 2025; Karpel, et al, 2025; Triplette, et al, 2025).

Research indicates a significant lack of gender-responsive M&E planning frameworks for cancer care programs in Kenya(Iseme-Ondiek, Abuodha, Ngugi, Abayo & Saleh, 2025; Patel, Rosa, Chen, Chitapanarux, Pramesh & Dee, 2025; Affey, Halake, Wainaina, Osman, Nduki, Abdourahman & Abdihamid, 2025; Iseme-Ondiek, Abuodha, Ngugi, Abayo & Saleh, 2025), and most existing studies are from high-income settings or focus on developed and developing countries where contextual factors, cancer prevalence, and health systems differ markedly from Kenya's (Delanerolle, et al, 2025; Natarajan & Pichai, 2024; Burke, et al, 2017; Achrekar, et al, 2024). The gap emphasizes the necessity of locally appropriate M&E strategies to address the particular requirements and difficulties faced by Kenyan cancer patients and their communities, such as inadequate funding, inadequate infrastructure, stigma, and unequal access to care.

Research on Gender Responsive M&E planning for cancer care programs often lacks a strong theoretical foundation (Delanerolle, et al, 2025; Natarajan & Pichai, 2024; Burke, et al, 2017; Achrekar, et al, 2024), with most studies failing to utilize relevant and impactful theoretical frameworks like intersectionality theory, stakeholder theory, performance legitimacy theory, and participatory governance theory to guide their analysis and design of gender-sensitive interventions. This contributes to a limited cognition of how to adequately manage the intricate interaction of gender, social determinants, and access to cancer care services by the different populations.

### **Gender Responsive M&E Data Collection and Performance of Cancer Programs**

In response to gender-specific needs, power dynamics, and outcomes, gender-responsive M&E systematically collects sex-disaggregated and other intersectional data, which enhances equality and empowers programs to work more effectively (Morgan, et al, 2024; Kalbarczyk, Krugman, et al, 2025; Tirivanhu and Jansen van Rensburg, 2018). Key aspects include using sex-disaggregated quantitative and qualitative data, incorporating gender-sensitive indicators, ensuring participant comfort and safety during collection, and analyzing data to reveal disparities and inform equitable interventions (Morgan, et al, 2024; Kalbarczyk, Krugman, et al, 2025; Tirivanhu & Jansen van

Rensburg, 2018).

Gender-responsive data collection is vital in cancer care because it uncovers hidden gender disparities in cancer burden, prevention, and treatment access (Delanerolle, et al, 2025; Natarajan & Pichai, 2024; Burke, et al, 2017; Achrekar, et al, 2024). By incorporating a gender lens into data, programs can identify unique health needs, design tailored care and rehabilitation programs, allocate resources effectively, and ultimately reduce systemic barriers, leading to more patient-centered care for everyone(Morgan, et al, 2024; Kalbacyk, Krugman, et al, 2025. Gender-responsive data reveals how cancer impacts different genders, including their roles as patients, caregivers, and health professionals. Data collection methods can uncover gender-specific barriers to access, such as unequal access to technology or specific types of healthcare service (Delanerolle, et al, 2025; Natarajan & Pichai, 2024; Burke, et al, 2017; Achrekar, et al, 2024).

Research gaps for gender-responsive data collection in Kenyan cancer care programs are significant because most existing studies are from developed or developing countries, with different cultural contexts and cancer burdens (Delanerolle, et al, 2025; Natarajan & Pichai, 2024; Burke, et al, 2017; Achrekar, et al, 2024),, making them less applicable to Kenya's unique situation. While some studies highlight the need for gender-responsive data in Kenyan cancer care, there is a lack of local, in-depth research on how to collect and use gender-sensitive data to address specific Kenyan challenges like cultural beliefs, limited resources, and late-stage diagnoses that disproportionately affect women.

Research on gender-responsive data collection in cancer care programs shows gaps in theoretical grounding, with many studies lacking the robust frameworks of intersectionality theory, participatory governance theory, and stakeholder theory to explain and address gendered disparities (Delanerolle, et al, 2025; Natarajan & Pichai, 2024; Burke, et al, 2017; Achrekar, et al, 2024). These theories are crucial for understanding how various forms of discrimination intersect (intersectionality), how marginalized groups can be empowered in health systems (participatory governance), and how to engage diverse actors to improve cancer care (stakeholder theory). Studies which have embraced these frameworks have a more fined-grained way of developing successful and context-specific intervention to encourage equity in cancer care (Garton, et al, 2025; Karpel, et al, 2025; Triplette, et al, 2025).

The literature on gender-responsive data collection in cancer care demonstrates that there is a substantial gap in conceptual and operational terms since most studies do not clearly indicate how the introduction of gender can be incorporated into the monitoring and evaluation (M&E) procedures (Garton, et al, 2025; Karpel, et al, 2025; Triplette, et al, 2025).. Operationalization is a challenge to defining gender versus sex and the use of a gender lens to health programs. To address this, researchers suggest specific approaches such as using sex- or gender-disaggregated data, incorporating intersectional perspectives, analyzing gender power relations, and tailoring M&E processes to the specific context of cancer care programs (Garton, et al, 2025; Karpel, et al, 2025; Triplette, et al, 2025).

Existing research indicates a significant lack of gender-responsive M&E frameworks for cancer care programs in Kenya, as most existing studies are from high-income settings or focus on developed and developing countries where contextual factors, cancer prevalence, and health

systems differ markedly from Kenya (Garton, et al, 2025; Karpel, et al, 2025; Triplette, et al, 2025). The gap emphasizes the need for locally appropriate M&E strategies to address the particular requirements and difficulties faced by Kenyan cancer patients and their communities, such as inadequate funding, dilapidated facilities, stigma, and unequal access to care.

### **Gender Responsive M&E Data Analysis and Performance of Cancer Programs**

Gender-responsive M&E data analysis systematically examines program impacts on individuals, considering social norms, power dynamics, and gender-based disparities to foster inclusivity and equality (Morgan, et al, 2024; Kalbarczyk, Krugman, et al, 2025; Tirivanhu & Jansen van Rensburg, 2018). It involves collecting sex-disaggregated and intersectional data (e.g., by age, ethnicity, and disability) to understand varied needs and outcomes, using mixed methods (qualitative and quantitative), and analyzing how power relations and systems change due to interventions. It aims to produce evidence of more effective, accountable and equitable gender inequalities addressing programs (Morgan, et al, 2024; Kalbarczyk, Krugman, et al, 2025; Tirivanhu & Jansen van Rensburg, 2018).

Gender-responsive monitoring and evaluation (M&E) data analysis could be essential to enable cancer programs to detect and overcome gender-specific disparities, provide equitable health outcomes, and enhance program effectiveness and accountability (Delanerolle, et al, 2025; Natarajan & Pichai, 2024; Burke, et al, 2017; Achrekar, et al, 2024). Through sex-disaggregated and gender-sensitive data, programs would be able to develop specific interventions, efficiently allocate resources, and offer inclusive and accessible services that would eventually lead to the improvement of health of all genders and gender equality. By making gender-responsive M&E, women, men, and gender-diverse individuals are able to identify unique cancer-related health challenges, vulnerabilities, and needs, which can be addressed through a specific intervention (Delanerolle, et al, 2025; Natarajan & Pichai, 2024; Burke, et al, 2017; Achrekar, et al, 2024).

There is insufficient research on gender-responsive Monitoring and Evaluation (M&E) data analysis specifically for cancer programs in Kenya because existing studies are primarily from developed and developing countries with vastly different contexts (Delanerolle, et al, 2025; Natarajan & Pichai, 2024; Burke, et al, 2017; Achrekar, et al, 2024).. This lack of context-specific research limits the development of effective, targeted cancer control strategies that address the unique needs and experiences of women and men in Kenya, as well as other marginalized gender. Much research on GRM&E for cancer programs lacks a strong theoretical foundation (Delanerolle, et al, 2025; Natarajan & Pichai, 2024; Burke, et al, 2017; Achrekar, et al, 2024), particularly in utilizing frameworks like intersectionality, stakeholder theory, and participatory governance, leading to a gap in understanding how to effectively address gender disparities in cancer care by considering the complex interplay of various social factors. Many studies focus on simply identifying gender differences in cancer outcomes without applying theoretical lenses to explain why these disparities exist and how to design interventions that address them holistically (Delanerolle, et al, 2025; Natarajan & Pichai, 2024; Burke, et al, 2017; Achrekar, et al, 2024).

### **Gender Responsive M&E Data Utilization and Performance of Cancer Programs**

Gender-responsive M&E data utilization is the process of using data, disaggregated by gender and other relevant factors, to understand the diverse needs, preferences, and experiences of women, men, and gender minorities within development programs (Morgan, Kalbarczyk, Decker, Elnakib,

Igusa, Luo & Malhotra, 2024; Kalbarczyk, Krugman, Elnakib, Hazel, Luo, Malhotra & Morgan, 2025; Tirivanhu & Jansen van Rensburg, 2018). This data is used to inform program design, monitor progress, ensure equitable outcomes, hold organizations accountable, and advocate for gender equality by revealing disparities, improving program effectiveness, and supporting evidence-based decision-making (Morgan, Kalbarczyk, Decker, Elnakib, Igusa, Luo & Malhotra, 2024; Kalbarczyk, Krugman, Elnakib, Hazel, Luo, Malhotra & Morgan, 2025; Tirivanhu & Jansen van Rensburg, 2018)

Gender-responsive data utilization in cancer programs is vital for achieving health equity by revealing hidden disparities, improving the relevance of interventions, and fostering more inclusive health systems (Delanerolle, Sivakumar, Haddadi, Kurmi, Phiri, Al-Kharusi & Elneil, 2025; Natarajan & Pichai, 2024; Burke, Lombard, Lachance, Kelly, Wilken & Waddell, 2017; Achrekar, Akselrod, Clark, Barron, Charles, Dain & Umohoza, 2024).. It ensures that programs are effective for both men and women by addressing gender-specific needs, culturally sensitive barriers, and the unequal distribution of burdens and resources, ultimately leading to better prevention, early detection, and treatment outcomes for all (Delanerolle, et al, 2025; Natarajan & Pichai, 2024; Burke, et al, 2017; Achrekar, et al, 2024).

Research on using M&E data to improve gender equity in health services shows mixed results because of challenges in defining and operationalizing gender responsiveness, the complexity of gender issues Delanerolle, et al, 2025; Natarajan & Pichai, 2024; Burke, et al, 2017; Achrekar, et al, 2024),, the lack of capacity to integrate gender into M&E, and limited examples of successful practical application. While the need for gender-responsive M&E is well-recognized to address disparities in access and outcomes, implementation is hindered by issues such as poor gender analysis, insufficient data, and weak institutional commitment Delanerolle, et al, 2025; Natarajan & Pichai, 2024; Burke, et al, 2017; Achrekar, et al, 2024).

Research gaps exist in gender-responsive data utilization in cancer programs for contexts like Kenya because most studies focus on developed countries or offer generalized findings from other developing nations (Delanerolle, et al, 2025; Natarajan & Pichai, 2024; Burke, et al, 2017; Achrekar, et al, 2024), failing to capture Kenya's unique socioeconomic and healthcare system factors. There is a critical need for context-specific research in Kenya to understand local barriers and facilitators to cancer prevention and treatment, as well as for developing and implementing effective, data-driven interventions tailored to the country's particular challenges.

While gender-responsive data utilization in cancer programs is increasingly recognized (Delanerolle, et al, 2025; Natarajan & Pichai, 2024; Burke, et al, 2017; Achrekar, et al, 2024), much of the research lacks robust theoretical grounding, particularly through frameworks like intersectionality, stakeholder theory, and participatory governance theory. This theoretical gap undermines the ability to fully understand and address the complex, intersecting factors that create and perpetuate cancer inequities, leading to incomplete analysis and potentially ineffective interventions. Theories like intersectionality help researchers and practitioners understand how various forms of discrimination (e.g., related to race, class, gender, age, and location) interact to create unique experiences of marginalization and health inequities.

## **Performance of Cancer Programs in Kenya**

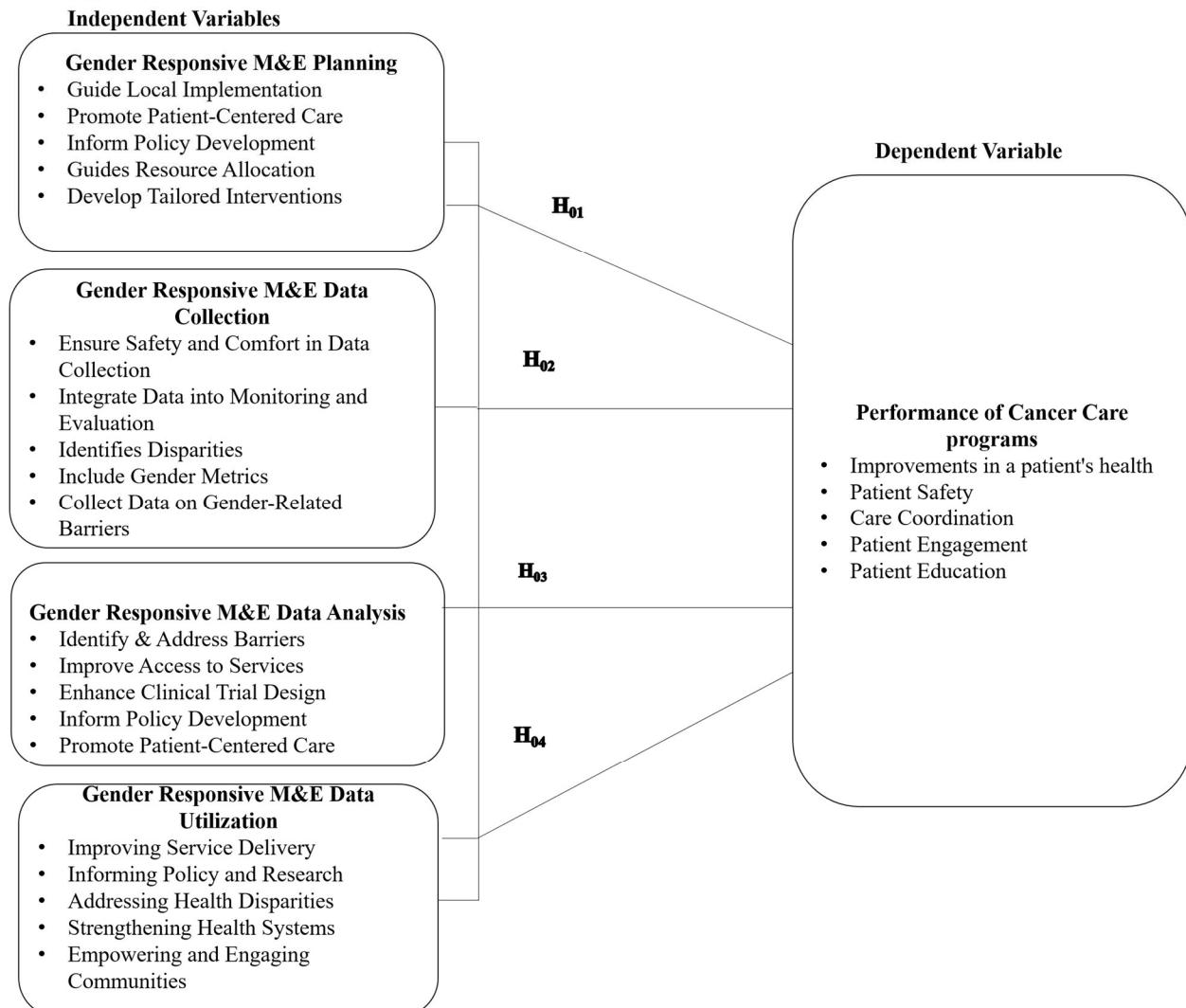
Researching the performance of cancer care programs in Nairobi is vital for developing and implementing effective cancer prevention and control strategies, improving patient outcomes by identifying gaps in early detection and treatment, informing policy decisions, allocating resources efficiently, and ensuring accountability and transparency in service delivery. The study will enable the provision of data required to develop interventions that suit the unique needs of the population, eliminate disparities, and eventually decrease the rising burden of cancer in the capital of Kenya. Research indicates that cancer care programs in Kenya show mixed results (Wambalaba & Wambalaba, 2024; Klootwijk, et al 2025; Adhiambo, et al 2025), with improvements in some areas due to policy implementation and decentralization efforts but significant gaps in access, financing, infrastructure, and workforce capacity, especially in rural regions. Although there is a growing cancer control framework that includes regional centers, many Kenyans still experience delays in diagnosis and treatment because of a lack of resources, geographic obstacles, financial limitations, and a lack of awareness and health-seeking behavior, particularly in underserved areas.

A central argument in cancer care research and patient advocacy in Kenya is that most programs are not patient-centered. The absence of robust, patient-centered Cancer Care Pathways (CCPs) contributes to care gaps (Chepkoech, 2024; Sirera, Naanyu, Kussin, & Lagat, 2024; Magambo, 2024; Odengo, 2024). Patients experience suboptimal pain management and lack a coordinated approach to their treatment journey, which should extend from awareness and screening to diagnosis, treatment, and survivorship. These barriers contribute to a system where patient needs are often secondary to systemic challenges.

Available evidence suggests that cancer patients often report poor provider-to-patient communication (Kebenei, Nyambane & Mutua, 2024; Kuria, Otieno, Kithuka & Murugi, 2024; Muriithi, 2024) which is vital for managing a long-lasting disease like cancer. There is also a lack of psychosocial support services to address the emotional and psychological needs of patients and their families.

While there are increasing private-public partnerships and efforts to decentralize cancer care services and train health workers in Kenya, the overall system faces fragmentation, contributing to poor patient outcomes and inequities (Wambalaba & Wambalaba, 2024; Barragan-Carrillo, Asirwa, Dienstmann, Pendhakar & Ruiz-Garcia, 2025).

## Conceptual Framework



**Figure1: Conceptual Framework**

## METHODOLOGY

This section details the philosophical stance, overall study plan (design), the target population, the specific participants selected (sample size and sampling method), the tools used for data collection, how the accuracy and consistency of these tools were ensured (validity and reliability), how abstract concepts were made measurable (operationalization), and the techniques used for analyzing the collected data.

### Research Philosophy

This study is grounded on Positivism. Positivism is a research philosophy centered on using scientific methods and observable, measurable data to establish objective truths and discover laws governing social phenomena (Ali, 2024; Park, Konge & Artino Jr, 2020). It posits that a single, external reality exists and can be understood through systematic observation and quantitative

analysis, aiming to eliminate bias and ensure replicable, value-free findings. This approach emphasizes empirical evidence, the hypothetico-deductive model for theory verification, and the use of statistical methods to analyze large sample sizes and generalize findings (Ali, 2024; Park, Konge & Artino Jr, 2020).

Positivism is relevant to researching cancer care program performance because its quantitative, objective approach can measure and identify causal relationships, essential for assessing program effectiveness, generalizability, and impact on patient outcomes through controlled experiments and large sample sizes. This paradigm aligns with health research by enabling the development of standardized, empirical measures of performance, informing policy, improving care, and guiding resource allocation by providing generalizable, objective data on cancer care services.

### Research Design

An explanatory sequential mixed methods design is used in this study (Ivankova, Creswell & Stick, 2006; Subedi, 2016). According to an explanatory sequential mixed methods design, the study first gathered and examined quantitative data before moving on to the collection and analysis of qualitative data, which was utilized to clarify, expand upon, or add more context to the quantitative findings (Ivankova, Creswell & Stick, 2006; Subedi, 2016).

When studying the performance of cancer care programs, an explanatory sequential mixed methods design is very relevant because it enables researchers to use quantitative data to first identify general patterns (such as what works, for whom, and how often) and then qualitative data to explain the mechanisms and reasons behind those patterns (Ivankova, Creswell & Stick, 2006; Subedi, 2016). In addition to improving the validity and reliability of findings, this two-phase approach offers a deeper, more comprehensive understanding of complex healthcare issues and produces more practical, evidence-based strategies for enhancing cancer care services.

### Population of Study

The target population for this research are cancer care programs implemented in Nairobi City County between 2015 and 2025. The most suitable unit of analysis is the cancer care program while the unit of observation (or data sources) are the individuals who provide the data about the programs. The target population is provided in table 1.1.

No	Category of Cancer Programs	Total Cancer Programs	Target Respondents
1	Strengthening Cancer Care	5	5 program managers, 5 M&E officers, 5 healthcare officers, 10 cancer patients/ caregivers <b>Total= 25</b>
2	Enhancing Quality of Care	2	2 program managers, 2 M&E officers, 2 healthcare officers, 5 cancer patients/ caregivers <b>Total= 11</b>
3	Cancer Diagnosis	10	10 program managers, 10 M&E officers, 10 healthcare officers, 10 cancer patients/ caregivers <b>Total= 40</b>

4	Pediatric Oncology	8	8 program managers, 8 M&E officers, 8 healthcare officers, 8 cancer caregivers <b>Total= 32</b>
5	Patient and Community Partnership	5	5 program managers, 5 M&E officers, 5 healthcare officers, 20 cancer patients/ caregivers <b>Total= 35</b>
6	Health Infrastructure	3	3 program managers, 3 M&E officers, 3 Healthcare officer, 5 cancer patients/ caregivers <b>Total= 14</b>
7	Policy Reform	2	2 program managers, 2 M&E officers, 2 healthcare officers, 4cancer patients/ caregivers <b>Total= 10</b>
<b>Total</b>		<b>35</b>	<b>167</b>

**Table 1.1: Target Population**

*Source: Nairobi City County Health Services Records, 2025*

### Sample Size and Sampling Methods

This study adopted the census method to select respondents. The target population consisted of 167 respondents drawn from the 35 cancer care programs operating in Nairobi City County.

The census approach was chosen to ensure maximum precision and to mitigate sampling error by including every member of the defined population. This method allows for a complete and comprehensive analysis of the influence of Gender Responsive Monitoring & Evaluation (GRM&E) processes on the performance of all known cancer care programs in the County.

### Data Collection Instruments and Procedure

Data for this study was collected using a mixed-methods approach, combining quantitative and qualitative instruments to provide a comprehensive analysis.

#### Quantitative Data Collection

Quantitative data was collected using a structured 5-point Likert scale questionnaire (Davis, Rhind & Jowett, 2025; Salim & Azo, 2025). The questionnaire was administered virtually via WhatsApp; a platform selected for its widespread use and accessibility among the target respondents. The instrument was divided into five sections:

Section A focused on the respondent and project's demographic characteristics. Sections B to D measured the four independent variables of the study—Gender responsive M&E planning, Gender responsive M&E data collection, Gender responsive M&E data analysis and Gender Responsive Utilization of M&E Findings each comprising 10 items. Section E measured the dependent variable, program performance, using a total of 10 items.

The use of this structured questionnaire enabled the collection of consistent, scalable data from a large number of respondents across the country.

### Qualitative Data Collection

Qualitative data was gathered through virtual in-depth, semi-structured interviews (Panyasai & Ambele, 2025; Westland, Vervoort, Kars & Jaarsma, 2025). The interviews were conducted via WhatsApp, leveraging the platform's video and voice call features. This approach allowed the researcher to delve into the "how" and "why" behind the quantitative findings, providing rich contextual narratives and deeper insights into the Gender Responsive M&E processes in cancer programs.

Interviews were designed to last approximately 30-45 minutes and focused on probing questions to elicit detailed explanations of the challenges and successes of performance of cancer care programs.

### Validity of Data Collection Instruments

To establish content validity, two specialists in the area of study who are the research supervisors from the University of Nairobi were given the instruments to examine the instrument's items relevance and consistence to the objectives by rating each item on a scale of very relevant (4), relevant (3), somewhat relevant (2), and not relevant (1). Content Validity Index (CVI) was used to determine validity.

$$CVI = \frac{\text{Sum of item rated 3 or 4}}{\text{Number of Questionnaire items}}$$

CVI= Items rated 3 or 4 by both experts divided by the total number of items in the questionnaire. The results summarized in Table 1.2 were obtained.

**Table 1.2: Experts Rating of Instruments**

		Supervisor I				Total
		1	2	3	4	
Supervisor II	1	0	0	0	0	<b>0</b>
	2	1	3	0	0	<b>4</b>
	3	1	0	5	7	<b>13</b>
	4	1	1	10	21	<b>33</b>
<b>Total</b>		<b>3</b>	<b>4</b>	<b>15</b>	<b>28</b>	<b>50</b>

Table 1.2 shows that validity index:  $CVI = (15+28)/50 = 0.860$ , which is acceptable since it was more than the threshold of 0.7 recommended by Cohen and Swerdlik (2010). Hence out of any ten items used in this study, at least seven of them measured what they were intended to measure. Construct validity was evaluated by examining whether a consistent significant proportion of high scores in items investigating independent variables correlated positively or negatively with scores in items investigating the dependent variable. This was done by comparing several scores from different subjects.

### Reliability of the Research Instruments

The reliability of the research instruments was established to ensure their consistency in yielding similar results when repeatedly applied to the same target population. The stability of the

instruments over time was determined using a pre-test reliability method. Subsequently, a re-test was performed on the corrected questionnaire to ensure it met the recommended reliability threshold of  $\alpha \geq 0.70$ , as suggested by Cronbach and Azuma (1962), before being used in the main study.

The study utilized Cronbach's alpha coefficient to assess the reliability of the rating-scaled questionnaire. Items were carefully reviewed and deleted as necessary to maximize their reliability coefficient. The resulting coefficients were then compared against a threshold of  $\alpha \geq 0.70$ , which is the recommended coefficient test for reliability according to Cohen and Swerdlick (2010). The reliability output results are presented in Table 1.3.

**Table 1.3: Reliability output results**

Scale	No. of Items	Alpha
Gender responsive M&E planning in cancer programs	10	0.886
Gender responsive M&E data collection in cancer programs	10	0.784
Gender responsive M&E data analysis in cancer programs	10	0.796
Gender Responsive Utilization of M&E Findings in cancer programs	10	0.854
Performance of cancer care programs	10	0.892
<b>Overall</b>	<b>50</b>	<b>0.842</b>

As shown in Table 1.3, the reliability analysis yielded strong results across all scales. The overall Cronbach's alpha was 0.842, which is well above the 0.70 threshold. This indicates a high level of reliability for the entire instrument, which comprised a total of 50 items. The consistently high alpha values across all scales confirm that the research instruments were reliable and suitable for data collection in this study on the implementation of school-based peace education programs.

### **Data Analysis Techniques**

This study employed descriptive and inferential statistics to analyze data. Descriptive statistics involved quantitative and qualitative data analysis while inferential statistics involved testing of research hypotheses using correlation and regression analysis. These are further explained in detail in the following sub-sequent sub-themes:

#### **Descriptive Statistics**

Descriptive statistics describes and summarizes data into distribution of scores or measurements such as measures of central tendency, measures of dispersion, frequencies and percentages and tables.

In quantitative data, the data was collected on each independent variable and dependent variable, which are the subject of investigation. It contained a total of 53 items comprising of 3 items in the demographic characteristics section and each of the 5 variables having 10 items structured to generate Likert response options measured on a 5-point ordinal scale ranging from the lowest

score “1” strongly disagree (SD) to the highest score “5” strongly agree (SA).

In qualitative data, the data from interview guide was recorded appropriately for further processing based on themes. Responses were coded and analyzed for themes and compared to the variables to validate quantitative results. Data was summarized into daily briefs after each interview sessions. This was followed by description of the responses to produce an interim report on areas that require additional information and requisite data sourced for systematic analysis and interpretation.

### **Inferential Statistics**

Pearson correlation co-efficient was used to test relationship between the independent variables and dependent variable, in order to reject or fail to reject the null hypothesis. The null hypotheses were tested for significance at  $\alpha=0.05$  significance level. Sekaran’s (2006) decision criterion, according to which the Null Hypothesis is to be rejected is if  $P\text{-value} < 0.05$ ; or otherwise, it is accepted. Using the Pearson correlation p-values under 2-tailed, the following five hypothesis were tested:

**Model 5 for Hypothesis5; H05;** There is no significant relationship between the combined GRM&E process and Performance of cancer care programs

Combined gender responsive M&E process =  $f$  (combined GRM&E process, random error).

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon_i$$

Where;

$\beta_0$ - Population’s regression constant,

$X_{1-4}$ = combined GRM&E process

$\varepsilon$  - is the Model error variable.

From observations and analyses of a sample, predictions or inferences about the population of study were made using a simple and multiple regression model.

### **Summary of Tests of Hypotheses**

Five hypotheses were tested at the  $\alpha=0.05$  significance level in order to draw empirical conclusions.  $H_0$  is rejected and  $H_A$  is accepted when  $P<0.05$ . The research hypothesis, decision rule, and interpretation of the anticipated outcomes are summarized in Table 1.4.

**Table 1.4: Statistical Tests of Hypotheses**

No	Objective	Hypothesis	Tools of Analysis	Analysis model	When to accept or reject
5	To establish the joint influence of GRM&E processes on performance of cancer care programs in Nairobi County.	$H_0_6$ There is no significant influence of the joint GRM&E processes on performance of cancer care programs in Nairobi City County in Kenya.	Multiple Linear Regression analysis	$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$	$P\text{-Value} > 0.05$ do not Reject  $P\text{-Value} \leq 0.05$ Reject

### Operationalization of the Variables

The variables under study were operationalized as indicated in the Table 1.5

**Table 1.5: Operationalization of Study Variables**

Objectives	Variables	Indicators	Scale of Measurement	Research Approach	Types of Statistical Analysis	Tools of Data Analysis
v. To establish the joint influence of GRM&E processes on performance of cancer care programs in Nairobi County.	Independent Variables: GRM&E Planning, GRM&E Data Collection, GRM&E Data Analysis, and GRM&E Data Utilization	See indicators for each variable above	Interval	Quantitative /Qualitative	Parametric / Non-parametric	Multiple Linear Regression, Correlation analysis
N/A	Dependent Variable: Performance of Cancer Care Programs	- Achievement of cancer care targets (e.g., screening rates, treatment completion) - Efficiency of resource utilization in cancer care - Patient satisfaction with cancer care services (disaggregated by gender) - Equitable access to cancer care services	Interval	Quantitative /Qualitative	Parametric / Non-parametric	Descriptive analysis, Correlation analysis, Simple linear regression

## FINDINGS

This section presents the study's results, which are discussed in a cross-sectional manner across several thematic areas: questionnaire return rate, participants' demographic characteristics, and the four key components of Gender – Responsive Monitoring and Evaluation Process as they relate to Performance of Cancer Care Programs. This final thematic area combines these Gender-Responsive Monitoring and Evaluation Process to examine their overall effect. The first four research objectives were analyzed using both descriptive statistics (percentages, means, and standard deviations) and inferential analysis, specifically correlation analysis and simple regression analysis, to determine the significance of the relationships under study. The final objectives were also analyzed using descriptive statistics, but the inferential analysis progressed to correlation analysis and multiple regression analysis to test for significant relationships. All statistical analyses were discussed simultaneously to provide a comprehensive and integrated view of the findings.

The key informant interviews, a qualitative data collection method, provided insights that were integrated with the quantitative descriptive statistics from the questionnaires. This triangulation of both qualitative and quantitative data enhanced the validity and reliability of the study's findings.

### Questionnaire Return Rate

From a census of the entire target population of 167 individuals, 167 questionnaires were issued to study participants. This is further detailed in Table 1.6.

**Table 1.6: Questionnaire Return Rate**

Respondent	Population	Returned	Return rate
Number	167	167	100%

Based on the revised Table 1.6, the study achieved an excellent questionnaire return rate, indicating a highly successful data collection process.

From a target population of 167 individuals, 167 questionnaires were issued, and all were fully completed and returned. This yielded a 100% return rate, as detailed in Table 4.1. This exceptional rate, which far exceeds the acceptable threshold of 50% commonly cited by research methodologists like Mugenda and Mugenda (2003) and Kothari (2004), was achieved through diligent follow-up. This perfect return rate ensures that the collected data is a complete representation of the study's population, thereby eliminating any risk of non-response bias.

### Demographic Characteristics of Cancer Care Programs in Kenya

The demographic profile of the 167 respondents (or the final number of respondents) is crucial as it provides the foundational context for interpreting the study's findings on cancer care programs. Data were systematically collected on key variables related to the participants' roles, the evidence-based approaches they implement, and the funding sources for their programs.

These variables are essential for understanding the operational context of the cancer care programs being studied, as presented in Table 1.7:

**Table 1.7 Demographic Characteristics of Cancer Care Programs in Kenya (n=167)**

Characteristics	n(f) frequency	(%) percent
<b>Position/Role in the in Cancer Care Programs (n=167)</b>		<b>(Sum = 100.0)</b>
Program Manager	20	12.0
Doctor	35	21.0
Oncology Pharmacist	15	9.0
Nurse	48	28.7
Clinical Officer	18	10.8
Medical/ Nursing Intern	12	7.2
Multidisciplinary Team Member	7	4.2
Care Coordinator	9	5.4
M&E Officer	3	1.8

<b>Characteristics</b>	<b>n(f) frequency</b>	<b>(%) percent</b>
Other	0	0.0
<b>Total Respondents</b>	<b>167</b>	<b>100.0</b>
<b>Evidence Based Cancer Care Approaches</b>	<b>(Multiple Response)</b>	
Precision Medicine	115	68.9
Early Detection	158	94.6
Immunotherapy	85	50.9
Supportive and Psychosocial Care	142	85.0
Patient-Centeredness	133	79.6
Complementary Therapies	40	24.0
Other Approaches	18	10.8
<b>Sources of Funds for Cancer Care Program/s</b>	<b>(Multiple Response)</b>	
Donor Funding	145	86.8
Corporate Partnerships	55	32.9
Out-of-Pocket Expenditure	110	65.9
County Budgets	125	74.9
Exchequer Funding	90	53.9
Private Sector Funding	75	44.9
Other Sources	10	6.0

Based on the data presented in Table 1.7, the following statistical implications can be drawn regarding the personnel involved in and the evidence-based practices implemented in Cancer Care Programs.

### Performance of Cancer of Care Programs in Kenya

Performance of Cancer of Care Programs in Kenya served as the dependent variable in this study. Building on both theoretical and empirical frameworks, the study identified five key indicators of Performance of Cancer of Care Programs in Kenya: improvement in patient's health, patient safety, care coordination, patient engagement and patient education. To measure these indicators, participants responded to a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree).

For primary data analysis, this ordinal scale was statistically transformed into an equidistant, or interval, scale to meet the assumptions of the parametric statistical methods used in the study. The qualitative interpretation of the results followed Nyutu's (2021) categorization, where mean scores were interpreted as follows: a point range of 1.00 - 1.80 for strongly disagree, 1.81-2.60 for Disagree, 2.61-3.40 for Neutral, 3.41-4.20 for Agree and 4.21- 5.00 for Strongly agree.

The data was then analyzed and presented using descriptive statistics, including frequencies, percentages, means, and standard deviations for each item. Both individual item means and standard deviations, as well as composite means and standard deviations, were calculated and presented in Table 1.8.

**Table 1.8: Performance of Cancer of Care Programs in Kenya**

STATEMENTS	SA	A	N	D	SD	Mean	Std. dev	skewnes
1 Cancer screening uptake in Kenya remains low due to poor community awareness.	68(40.7%)	73(43.7%)	17(10.2%)	3(1.8%)	6(3.6%)	4.16	0.940	-1.52
2. Many Kenyans lack knowledge about cancer and its risk factors, contributing to poor uptake of cancer screening services.	73(43.7%)	63(37.7%)	17(10.2%)	8(4.8%)	6(3.6%)	4.13	1.02	-1.37
3. Cancer management remains a significant financial burden for many families.	84(50.3%)	63(37.7%)	11(6.6%)	4(2.4%)	5(3.0%)	4.30	0.922	-1.75
4 Cancer programs have shown success in improving women's access to screening and treatment for breast and cervical cancers.	53(31.7%)	85(50.9%)	20(12%)	2(1.2%)	7(4.2%)	4.05	0.930	-1.46
5. There is a significant lack of palliative care services, leaving many patients without access to comfort and supportive care in their final stages of illness.	66(39.5%)	72(43.1%)	21(12.6%)	4(2.4%)	4(2.4%)	4.15	0.903	-1.30
6. Cancer patient navigation programs have shown success in improving patients' understanding of their diagnosis.	47(28.1%)	85(50.9%)	25(15%)	5(3.0%)	5(3.0%)	3.98	0.908	-1.19
7. Cancer Programs have reduced the average waiting time for breast cancer treatment in Kenya.	46(27.5%)	72(43.1%)	33(19.8%)	9(5.4%)	7(4.2%)	3.84	1.02	-0.944
8. Cancer of care programs in Kenya have increased access to care for more women and men through decentralized services.	54(32.3%)	68(40.7%)	32(19.2%)	8(4.8%)	5(3.0%)	3.95	0.989	-0.949
9. Cancer care programs in Kenya are not publicly funded, forcing patients to bear high costs through co-pays and out-of-pocket expenses.	68(40.7%)	70(41.9%)	18(10.8%)	7(4.2%)	4(2.4%)	4.14	0.940	--1.31

10. Major cancer treatment programs are predominantly located in the capital city, Nairobi, making them inaccessible to many Kenyans.	78(46.7%)	65(38.9%)	14(8.4%)	4(2.4%)	6(3.6%)	4.23	0.961	-1.63
<b>Composite mean &amp; Composite standard deviation</b>						<b>4.09</b>	<b>0.957</b>	

## Phase 1: Quantitative Data Analysis (QUAN)

Based on Table 1.8, the results indicate that the performance of cancer care programs in Kenya faces significant operational and structural challenges, despite notable successes in targeted areas. The data shows an overall strong agreement among respondents regarding the presence and severity of these challenges, reflected by a high composite mean of 4.09 (falling within the 'Agree' range) and a low composite standard deviation of 0.957. This suggests a high degree of consensus among respondents on the issues affecting performance. The key findings are presented below:

Statement 1: *"Cancer screening uptake in Kenya remains low due to poor community awareness."* With a mean of 4.16 and a combined agreement rate of 84.4% (40.7% strongly agreed, 43.7% agreed), respondents overwhelmingly believe that poor community awareness is a major barrier to cancer screening. This implies that public health initiatives need to focus on comprehensive awareness campaigns to improve screening participation and early detection. The standard deviation of 0.940 (close to the composite) indicates a high level of consensus on this issue.

Statement 2: *"Many Kenyans lack knowledge about cancer and its risk factors, contributing to poor uptake of cancer screening services."* With a mean of 4.13 and a combined agreement rate of 81.4% (43.7% strongly agreed, 37.7% agreed), respondents strongly agree that a lack of knowledge is a significant factor in low screening rates. This finding suggests that educational programs on cancer prevention and risk factors are a critical component of any strategy to improve cancer care. The standard deviation of 1.02 (greater than the composite) points to some variance in opinions, which might reflect differing levels of health literacy across the population.

Statement 3: *"Cancer management remains a significant financial burden for many families."* With the highest mean of 4.30 and a combined agreement rate of 88.0% (50.3% strongly agreed, 37.7% agreed), this statement confirms that the cost of cancer care is the most critical challenge facing patients and their families. This implies that financial support mechanisms, such as public funding or insurance programs, are urgently needed to make treatment more accessible. The standard deviation of 0.922 (less than the composite) shows a strong convergence of opinion on this widespread problem.

Statement 4: *"Cancer programs have shown success in improving women's access to screening and treatment for breast and cervical cancers."* With a mean of 4.05 and a combined agreement rate of 82.6% (31.7% strongly agreed, 50.9% agreed), respondents believe these targeted programs have been successful. This finding implies that focused, specialized programs can be effective in

improving specific areas of cancer care and could serve as a model for other cancer types. The standard deviation of 0.930 (close to the composite) indicates a high degree of consensus.

Statement 5: *"There is a significant lack of palliative care services, leaving many patients without access to comfort and supportive care in their final stages of illness."* With a high mean of 4.15 and a combined agreement rate of 82.6% (39.5% strongly agreed, 43.1% agreed), the data shows that the lack of palliative care is a major gap in the cancer care system. This implies a pressing need to develop and integrate these services into cancer treatment protocols to improve the quality of life for terminally ill patients. The standard deviation of 0.903 (less than the composite) suggests a strong convergence of opinion on this issue.

Statement 6: *"Cancer patient navigation programs have shown success in improving patients' understanding of their diagnosis."* With a mean of 3.98 and a combined agreement rate of 79.0% (28.1% strongly agreed, 50.9% agreed), respondents agree that patient navigation programs are effective. This implies that such programs are valuable tools for enhancing patient education and should be expanded to ensure more individuals can benefit from them. The standard deviation of 0.908 (less than the composite) indicates a strong consensus on the effectiveness of these programs.

Statement 7: *"Cancer Programs have reduced the average waiting time for breast cancer treatment in Kenya."* With a mean of 3.84 and a combined agreement rate of 70.6% (27.5% strongly agreed, 43.1% agreed), this statement has the lowest mean score, suggesting that while some progress has been made, reducing wait times for treatment remains a challenge. The standard deviation of 1.02 (greater than the composite) indicates a wider range of experiences, perhaps reflecting regional differences in wait times.

Statement 8: *"Cancer of care programs in Kenya have increased access to care for more women and men through decentralized services."* With a mean of 3.95 and a combined agreement rate of 73.0% (32.3% strongly agreed, 40.7% agreed), the data shows that decentralization efforts have had some positive impact. This implies that continuing to decentralize services is a viable strategy to improve access to care, though more work is needed. The standard deviation of 0.989 (close to the composite) points to a general agreement on this point.

Statement 9: *"Cancer care programs in Kenya are not publicly funded, forcing patients to bear high costs through co-pays and out-of-pocket expenses."* With a mean of 4.14 and a combined agreement rate of 82.6% (40.7% strongly agreed, 41.9% agreed), respondents confirm that a lack of public funding is a primary reason for the financial burden on patients. This finding highlights the need for a sustainable public financing model to reduce patient costs and improve access to treatment. The standard deviation of 0.940 (close to the composite) indicates a strong consensus on this issue.

Statement 10: *"Major cancer treatment programs are predominantly located in the capital city, Nairobi, making them inaccessible to many Kenyans."* With a high mean of 4.23 and a combined agreement rate of 85.6% (46.7% strongly agreed, 38.9% agreed), this finding indicates that the centralization of services in Nairobi is a major barrier to access for the majority of Kenyans. This implies that there is a critical need to establish more regional cancer treatment centers to ensure

equitable access to care across the country. The standard deviation of 0.961 (close to the composite) confirms a strong consensus on this point.

## **Phase 2: Qualitative Data Analysis (QUAL)**

The second phase involved Key Informant Interviews to provide in-depth, contextual explanations for the performance challenges identified quantitatively. Thematic analysis of the interview data consolidated the primary concerns:

A key informant (K-008) emphasized the socio-economic and logistical burden as follows:

*"The most significant problem is the financial and logistical burden on patients, because cancer treatment is not publicly funded, families are forced into crippling debt. Even with the presence of major treatment centers in Nairobi, many Kenyans from rural areas simply can't afford the travel and accommodation, let alone the high cost of treatment itself. This is a huge barrier that negates any progress made in centralizing care." K-008*

## **Phase 3: Integration of Quantitative (QUAN) and Qualitative (QUAL) Results**

The Explanatory Sequential Mixed Methods Design integrates the quantitative scope (magnitude of challenges) with the qualitative depth (contextual explanation) to provide a comprehensive understanding of the Performance of Cancer Care Programs in Kenya.

### **1. Financial Catastrophe and Access Inequity**

Integration: QUAN data identified the lack of public funding (Mean: 4.14) and the centralization of services in Nairobi (Mean: 4.23) as top challenges. The QUAL data (K-008) explained how this convergence creates a financial and logistical catastrophe, where the high cost of treatment, coupled with unaffordable travel and accommodation for patients from rural areas, negates any perceived benefit of centralizing care.

Conclusion: The Centralization of Specialized Services and the Absence of a Sustainable Public Financing Model are the primary drivers of Access Inequity. This systemic failure means that improved patient safety or care coordination metrics within Nairobi's centers do not translate into equitable access or improved population health outcomes across the nation.

### **2. Public Health Failure in Knowledge and Early Detection**

Integration: QUAN data showed strong agreement that poor community awareness (Mean: 4.16) and lack of knowledge (Mean: 4.13) impede screening uptake. The QUAL data, while not directly addressing this, is contrasted by the recognized success of targeted awareness programs (Statement 4), suggesting that the general failure is in widespread, sustained public health education rather than the effectiveness of specific interventions.

Conclusion: The Widespread Knowledge Deficit remains a critical public health barrier. While targeted programs demonstrate that patient education and awareness can work, the overall low

screening uptake indicates a failure to mainstream comprehensive cancer education across the general population, undermining early detection efforts.

### 3. Success of Targeted Supportive Care vs. Systemic Gaps

Integration: QUAN data highlighted the success of patient navigation programs (Mean: 3.98) and targeted programs for women (Mean: 4.05). Simultaneously, it flagged a significant lack of palliative care (Mean: 4.15). The QUAL data affirmed the value of these supportive 'navigation' programs.

Conclusion: Effective performance indicators (patient education, care coordination, patient engagement) are best achieved through Targeted, Patient-Centered Supportive Services like patient navigation. However, the system is fundamentally undermined by the severe Palliative Care Deficit, which represents a critical failure in holistic patient management and quality of life in the final stages of illness.

### **The Joint Influence of Gender Responsive M&E Process and Performance of Cancer Care Programs**

The study sought the perspectives of study participants on the joint effect of Gender Responsive M&E Processes on performance of cancer care programs. This was the fifth objective the study sought to establish. The results are presented in Table 1.9.

**Table 1.9: The Joint Influence of Gender Responsive M&E Process and Performance of Cancer Care Programs**

Joint effect of Gender Responsive M&E Processes on performance of cancer care	n	Mean	Standard deviation
Gender Responsive M&E Planning in cancer programs	167	4.07	0.969
Gender Responsive Data in cancer programs	167	4.11	0.901
Gender- Disaggregated M&E Data Analysis in cancer programs	167	3.99	0.903
Gender responsive Utilization M&E Findings in cancer programs	167	4.09	0.875
<b>Composite mean</b>	<b>167</b>	<b>4.07</b>	<b>0.912</b>

The results from Table 1.9 consistently demonstrate a strong positive perceived joint influence of Gender Responsive M&E Processes on the performance of cancer care programs.

All four factors—Gender Responsive M&E Planning in cancer programs, Gender Responsive Data in cancer programs, Gender-Disaggregated M&E Data Analysis in cancer programs, and Gender Responsive Utilization M&E Findings in cancer programs—show high mean scores, underscoring their significant contribution to the performance of cancer care programs.

The composite mean for these factors is 4.07, with a standard deviation of 0.912, confirming their

overall positive impact. Individually, the factors exhibit the following means and standard deviations (based on n=167 respondents for each): Gender Responsive Data in cancer programs has the highest mean of 4.11 (Standard Deviation 0.901) whereas Gender-Disaggregated M&E Data Analysis in cancer programs has the lowest mean of 3.99 (Standard Deviation 0.903).

These findings imply that a comprehensive and gender-responsive approach to monitoring and evaluation is critical for the successful performance of cancer care programs. The high mean scores for all factors indicate that stakeholders perceive good performance across all crucial areas that directly influence the effectiveness of cancer care delivery. This provides a solid groundwork for future interventions and policy development focused on strengthening gender responsiveness in M&E for better program outcomes.

### **Correlation Analysis of the Joint Influence of Gender Responsive M&E Process and Performance of Cancer Care Programs**

In order to determine the correlation between the Joint Influence of Gender Responsive M&E Processes on Performance of Cancer Care Programs, Pearson correlation coefficient was run on the scores of each scale. The respondent at 95% level of confidence computed the total scores of the scales as a summation of the individual scores on each item. The results obtained are indicated in Table 1.10.

**Table 1.10: Correlation Analysis of the Joint Influence of Gender Responsive M&E Process and Performance of Cancer Care Programs**

Joint Influence of Gender Responsive M&E Processes		Performance of Cancer Care Programs
Gender Responsive M&E Planning in cancer program	<i>Pearson Correlation</i> <i>Sig. (2-tailed)</i> <i>n</i>	0.732* 0.000 167
Gender Responsive Data Collection in cancer Programs	<i>Pearson Correlation</i> <i>Sig. (2-tailed)</i> <i>n</i>	0.723* 0.000 167
Gender- Disaggregated M&E Data Analysis in cancer Programs	<i>Pearson Correlation</i> <i>Sig. (2-tailed)</i> <i>n</i>	0.594 0.000 167
Gender responsive Utilization M&E Findings in cancer program	<i>Pearson Correlation</i> <i>Sig. (2-tailed)</i> <i>n</i>	0.756 0.000 167
Overall joint participatory monitoring and evaluation practices and	<i>Pearson Correlation</i> <i>Sig. (2-tailed)</i> <i>n</i>	0.785* 0.000 167

implementation of peace education programs

\*Significant at 0.05 level (2-tailed)

Table 4.25 reveals that all four independent variables—gender responsive M&E planning, gender responsive data collection, gender-disaggregated M&E data analysis, and gender responsive utilization of M&E findings—have a statistically significant positive linear relationship with the performance of cancer care programs.

The correlation coefficients show the strength of these individual relationships: Gender Responsive M&E Planning:  $r = 0.732$ , Gender Responsive Data Collection:  $r = 0.723$ , Gender-Disaggregated M&E Data Analysis:  $r = 0.594$ , and Gender Responsive Utilization of M&E Findings:  $r = 0.756$ . These findings suggest that each factor has a strong individual association with the performance of cancer care programs. The overall joint influence of these four factors yields a strong positive correlation of  $r = 0.785$  with the performance of cancer care programs. This highlights that while each factor individually contributes positively, their combined influence is substantially more impactful.

The consistently low p-values ( $p = 0.000$ ) across all correlations (both individual and joint) provide very strong evidence that these observed relationships are not due to random chance. This leads to the rejection of the null hypothesis and the acceptance of the alternative hypothesis.

Therefore, the study concludes that there is a significant relationship between the joint influence of gender-responsive M&E processes and the performance of cancer care programs.

### **Regression Analysis of Joint Influence of Gender Responsive M&E Processes on Performance of Cancer Care Programs**

Multiple linear regressions were adopted to investigate the Joint Influence of Gender Responsive M&E Processes on performance of cancer care programs. It was necessary to get the views of the study participants on the effect of Joint Influence of Gender Responsive M&E Processes on performance of cancer care programs

### **Model summary of Joint Influence of Gender Responsive M&E Processes on Performance of Cancer Care Programs**

The model summary sought to determine how Joint Influence of Gender Responsive M&E Processes on Performance of Cancer Care Programs. The regression model output statistics results are shown in Table 1.11.

**Table 1.11: Regression Analysis of Joint Influence of Gender Responsive M&E Processes on Performance of Cancer Care Programs**

#### **Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.785 <sup>a</sup>	0.616	0.606	0.44620

a. Predictor, (Constant), Joint Influence of Gender Responsive M&E Processes

The model summary in Table 1.11 presents key statistics from a regression analysis examining the joint influence of gender-responsive M&E processes on the Performance of Cancer care Programs. The R value of 0.785 indicates a strong positive multiple correlation. This confirms that when combined, these gender-responsive M&E processes have a substantial association with improved Performance of Cancer care Programs.

The R-squared ( $R^2$ ) value of 0.616 indicates that these processes, working together, explain 61.6% of the variation in Performance of Cancer care Programs. This highlights their significant role in predicting success. The Adjusted R-squared of 0.606 further suggests that approximately 60.6% of the variance is genuinely accounted for by these factors, even after adjusting for the number of predictors in the model.

The Standard Error of the Estimate is 0.44620, which means that, on average, the model's predictions for implementation scores deviate from the actual observed scores by about 0.44620 units. This indicates a high level of precision in the model's predictions, given the large amount of variance explained.

The implications of these results are clear: a holistic strategy that simultaneously integrates gender-responsive M&E processes will lead to the most impactful improvements in Performance of Cancer care Programs

### **An ANOVA of the Joint Influence of Gender Responsive M&E Processes on Performance of Cancer care Programs**

The study sought to establish whether the regression model is best fit for predicting Performance of Cancer care Programs after use of Joint Gender Responsive M&E Processes. The regression ANOVA output statistics results are shown in Table 1.12

**Table 1.12: An ANOVA of the Joint Gender Responsive M&E Processes on Performance of Cancer Care Programs**

Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	51.640	4	12.910	68.844
	Residual	32.253	162	0.199	
	Total	83.893	166		

Dependent Variable: Performance of Cancer care Programs

Predictors: (Constant), Joint Gender Responsive M&E Processes

An ANOVA was performed as part of the multiple linear regression analysis to determine if the joint influence of gender-responsive M&E processes significantly explains the variance in the performance of cancer care programs.

The ANOVA results confirm that the overall regression model is statistically significant,  $F(4, 162) = 68.844$ , with a significance value of  $p = 0.000$ . This finding suggests that the combined effect of gender-responsive M&E processes significantly predicts the performance of cancer care programs.

The analysis shows that the variation in performance scores explained by the model (Sum of Squares for Regression = 51.640) is substantially larger than the unexplained variation (Sum of Squares for Residual = 32.253), providing strong evidence that these variables collectively have a real impact. This led to rejection of the null hypothesis and concluding that the model is a good fit for the data.

### **Coefficients for the Regression of Joint Gender Responsive M&E Processes on performance of cancer care programs**

The study sought to determine whether there was joint effect of Gender Responsive M&E Processes on performance of cancer care programs. The regression coefficients results are in Table 1.13.

**Table 1.13: Coefficients for the Regression of Joint Gender Responsive M&E Processes on Performance of cancer care programs**

Model	Coefficients				
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
Constant	0.785	0.212		3.693	0.000
Gender Responsive M&E Planning in cancer program	0.251	0.108		2.337	0.021
			0.259		
Gender Responsive Data Collection in cancer program	-0.079	0.076	-0.085	-1.040	0.300
Gender-Disaggregated M&E Data Analysis in cancer program	0.212	0.111	0.215	1.904	0.059
Gender responsive Utilization M&E Findings in cancer program	0.423	0.102	0.421	4.140	0.000

a. Dependent Variable: **Performance of cancer care programs**

The results from Table 1.13 detail the unique contribution of each independent variable—gender-responsive M&E planning, data collection, data analysis, and utilization of M&E findings—to the Performance of Cancer Care Programs in a multiple linear regression model, while holding other variables constant.

Gender-Responsive Utilization of M&E Findings is the most influential factor, demonstrating a highly significant and positive effect ( $\beta=0.421$ ,  $p=0.000$ ).

Gender-Responsive M&E Planning is the second most influential factor, showing a significant and positive effect ( $\beta=0.259$ ,  $p=0.021$ ).

Gender-Disaggregated M&E Data Analysis is marginally insignificant ( $p=0.059$ ), suggesting a weak positive influence that does not meet the  $p<0.05$  threshold.

Gender-Responsive Data Collection is statistically insignificant ( $p=0.300$ ) and shows a small negative standardized coefficient ( $\beta=-0.085$ ), meaning its unique contribution to performance is negligible when the other M&E processes are present in the model.

The multiple linear regression equation, which predicts the performance of cancer care programs (Y) based on all four M&E components, is constructed using the unstandardized coefficients (B) from Table 4.28:

$$Y=0.785+0.251X1-0.079X2+0.212X3+0.423X4$$

Where:

Y = Performance of Cancer Care Programs

X1 = Gender-Responsive M&E Planning

X2 = Gender-Responsive Data Collection

X3 = Gender-Disaggregated M&E Data Analysis

X4 = Gender-Responsive Utilization of M&E Findings

The unstandardized coefficients detail the predicted change in program performance for a one-unit increase in the respective M&E component, assuming all other variables in the model are held constant.

Gender-Responsive Utilization of M&E Findings (X4): A one-unit increase is associated with a predicted increase of 0.423 units in program performance. This is the largest marginal positive effect among the predictors.

Gender-Responsive M&E Planning (X1): A one-unit increase is associated with a predicted increase of 0.251 units in program performance.

Gender-Disaggregated M&E Data Analysis (X3): A one-unit increase is associated with a predicted increase of 0.212 units in program performance, though this effect is marginally insignificant.

Gender-Responsive Data Collection (X2): A one-unit increase is associated with a predicted decrease of 0.079 units in program performance. Since this coefficient is insignificant, this negative relationship is not statistically meaningful.

These findings highlight that Utilization and Planning are the most critical and statistically reliable drivers of cancer care program performance when all M&E processes are modeled together.

## **CONCLUSION AND RECOMMENDATIONS**

This section presents summary of findings, conclusions and recommendations. In the summary of findings, the results for each of the hypothesis in the study are presented for the five research objectives. The conclusions presented in this section were guided by the research objectives and informed by the findings, analysis, interpretation and discussions in the study. Based on the conclusions made, the contribution of the study to knowledge is examined. Recommendations based on the results for policy and practice and for methodology as well as suggestions for further research are made.

The research objective was to examine the Joint Influence of Gender Responsive M&E Processes on Performance of Cancer care programs. The composite mean and composite Standard deviation for the combined influence Gender Responsive M&E Processes on Performance of Cancer care programs were 4.07 and 0.912, respectively. This implies that, using the Likert scale, the respondents agreed that these four factors jointly and positively influence the Performance of Cancer care programs. The overall perception of this combined influence is high and positive.

The overall correlation coefficient of determination for the Joint Influence of Gender Responsive M&E Processes on Performance of Cancer care programs was found to be  $r=0.785$  with a p-value of  $0.000<0.05$ . This implies that, from the views of the participants in the study, the results indicated that there was a significant joint relationship between the combined factors and the Performance of Cancer care programs. This led to the rejection of the null hypothesis ( $H_0$ : There is no significant relationship between the Joint Influence of Gender Responsive M&E Processes on Performance of Cancer care programs County in Kenya) and the acceptance of the alternative hypothesis. The  $R^2$  value of 0.616 indicates that approximately 61.6% of the variance in the Performance of Cancer care programs County in Kenya can be explained by the joint influence of these four variables.

The ANOVA results from the study participants' views indicated that the regression model for the Joint Influence of Gender Responsive M&E Processes Performance of Cancer care programs. was statistically significant ( $F(4,162)=68.844$  and  $p\text{-value}=0.000<0.05$ ). This confirms that the model is a good fit for the data and that the independent variables, when considered together, are significant predictors of the dependent variable.

The multiple linear regression coefficients result revealed that there was sufficient evidence that Gender Responsive M&E Processes jointly and significantly influence the Performance of Cancer care programs.

## **Conclusions**

The research objective was to examine the extent to which the Joint Influence of Gender Responsive M&E Processes influences on Performance of Cancer care programs. The Multiple linear regression coefficients as well as the Pearson correlation results indicated that there was a significant joint influence of Gender Responsive M&E Processes on Performance of Cancer care programs. The p-values implied that there was a significant joint influence of these factors on the Performance of Cancer care programs

## **Recommendations**

### ***Future Research and Causal Pathway Investigation***

Future research should build upon these findings to further investigate the causal pathways and combined effects of these variables within the complex health ecosystem of Nairobi County.

### **Areas for Further Research**

Based on the findings and contributions of this study, which examined the influence of gender-responsive M&E processes on the performance of cancer care programs the following are key suggestions for future research:

#### **1. Contextual Replication and Generalizability of Findings**

This research focused on a high-density, urban setting—Nairobi County. Future studies should replicate this work in other diverse geographical areas in Kenya.

#### **2. The Role of Technology and Digital Platforms in M&E**

Given the increasing integration of technology in health systems, future research should assess how digital platforms influence the factors studied here.

#### **3. Examining Other Influential and Mediating Variables**

This study focused on the four core M&E processes. Future research should empirically examine other factors that may mediate or moderate the relationship between gender-responsive M&E and cancer care performance.

#### **4. Longitudinal Studies on Program Sustainability**

This study provided a cross-sectional snapshot of the relationships. A future longitudinal study is necessary to track performance indicators over an extended period (e.g., 3-5 years).

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