

Exploring Facilitators, and Barriers for Oncology Service Delivery: Perspectives from Healthcare Service Providers and Patients

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Introduction

- Sub-Saharan Africa (SSA) is currently dealing with a tremendous cancer problem. According to data estimates, cancer mortality will significantly increase from 520,348 in 2020 to nearly 1 million deaths annually by 2030 if rapid measures are not taken.
- Oncology services play a crucial role in providing specialized care for cancer patients.
- The provision of oncology care is shaped by a combination of enabling factors and obstacles, both of which significantly affect treatment success, patient health outcomes, and the efficiency of healthcare delivery systems.
- Understanding these factors within a quaternary care hospital is essential to enhance service delivery and improve patient care.

Aim & Objectives

Aim:

This study aimed to assess the facilitators and barriers in oncology service delivery in order to develop informed policy recommendations and optimize the quality of oncology healthcare services.

Objectives:

- To identify key facilitators that enhance the quality and effectiveness of oncology care.
- To explore the barriers hindering optimal oncology service delivery in healthcare institutions.
- To assess patient satisfaction with the oncology services provided by the hospital.

Methodology

- **Research Question:** The key facilitators and barriers influencing the delivery of oncology services and patient satisfaction in a quaternary care hospital.
- **Study Design:** Cross-sectional design utilizing both quantitative and qualitative
- **Setting:** Oncology Department of The Nairobi West Hospital in Kenya
- **Study Population:**
Participants included oncologists, oncology nurses, hospital administrators, and support staff directly involved in oncology service provision, as well as cancer patients undergoing active treatment.

Methodology

- **Study Tools:** Structured, self-administered questionnaire designed for both healthcare providers and patients and a comprehensive interviews
- **Duration of Study:** April 2025 to May 2025
- **Sample Size and Sampling Technique:** A convenience sampling
50 healthcare professionals and 100 patients

Methodology

Data Analysis:

- Data analysis was performed using IBM SPSS Statistics version 27.
- Descriptive statistics— means, standard deviations, and frequency counts, inferential statistical methods were employed.
- Statistical significance was established at a p-value of less than 0.05.
- Qualitative data derived from in-depth interviews and open-ended survey responses were subjected to thematic analysis.

Ethical Considerations:

- Prior to data collection, informed consent was secured from all participants, guaranteeing their voluntary involvement.
- Participant anonymity and confidentiality were rigorously preserved by removing all personal identifiers from the dataset to safeguard privacy.

Result

Table 1: Descriptive and Inferential Statistics for Barriers to Oncology Service Delivery

Barrier	Mean	Std Dev	Min	Max	Chi ²	p-value	Significant (p < 0.05)
Financial Difficulty	4.28	0.90	1.0	5.0	16.80	0.00	Yes
Provider Access	2.94	1.14	1.0	5.0	5.20	0.27	No
Long Waits	4.41	0.63	2.0	5.0	14.28	0.00	Yes
Cost	4.39	0.59	2.0	5.0	13.72	0.00	Yes
Emotional Stress	2.80	1.11	1.0	5.0	13.03	0.01	Yes

Financial barriers (mean = 4.28), treatment costs (4.39), and prolonged waiting times (4.41) were rated as the most significant concerns, reflecting their widespread impact on patients. Chi-square analysis demonstrated that these barriers, in addition to emotional stress, were significantly associated with treatment satisfaction ($p < 0.05$), indicating that these factors substantially influence patient's perceived quality of care.

Result

Table 2: Summary of Facilitators Rated by Oncology Healthcare Professionals

Facilitator	Mean	Std Dev
Availability of advanced technology	3.80	1.10
Regular training in oncology services	3.34	1.24
Interdisciplinary teamwork effectiveness	4.04	0.92
Financial resource adequacy	3.26	1.15
Cultural/language considerations in care	3.10	1.33

Teamwork (mean = 4.04) and technology availability (3.80) were rated highest, highlighting the strengths of collaborative care and access to equipment. Cultural and training-related factors were rated lower, suggesting room for improvement in staff development and culturally responsive care.

Result

Table 3: Summary of Barriers Rated by Oncology Healthcare Professionals

Barrier	Mean	Std Dev
Inadequate resources (equipment/supplies)	2.72	1.09
Financial constraints	3.06	1.20
Staff shortages	2.98	1.04
Patient non-compliance	3.14	1.05
Inefficient coordination	2.76	1.06

While patient non-compliance and financial constraints were rated as the most pressing barriers, all items scored near the mid-range, reflecting systemic inefficiencies rather than isolated problems. These areas are potential targets for hospital policy reforms.

Result

Qualitative Findings

Healthcare Provider Insights:

- **Communication Gaps:** Poor coordination in financial planning and clinical updates.
- **Patient Support:** Need for private counseling spaces and empathetic, timely psychological care.
- **Resource Constraints:** Shortage of equipment (e.g., SRS/SBRT), outdated infrastructure, and limited staff.
- **Financial & Logistical Barriers:** High costs, hidden charges, and travel burdens.

Recommendations:

- Formalize communication (e.g., email updates, financial counselors)
- Expand workforce, training, and interdepartmental coordination
- Improve billing transparency and access to affordable drugs
- Promote multidisciplinary care and government collaboration

Sample Staff Quote:

"We face challenges such as inadequate resources, lack of training, and communication delays."

Result

Qualitative Findings

- **Patient Feedback:**

- Requests for:
 - Shorter waiting times
 - Better food and ward conditions
 - Improved doctor-patient communication

Example Quote:

"Ensure more than one doctor is available and reduce long waiting times."

- The qualitative data supports the quantitative findings and adds depth, highlighting the emotional and logistical realities faced by both providers and patients. There is alignment between stakeholder concerns, particularly regarding delays, financial barriers, and operational efficiency.

Discussion

- Financial difficulties were a dominant barrier, with patients reporting high treatment costs, hidden charges, and reduced satisfaction. Alaina L. Carr et al. found financial burden to be the most prominent challenge (mean score 4.28/5, $p < 0.001$), and Fayanju et al. emphasized its persistent role in delayed or incomplete cancer care among underserved populations.
- Long waiting times and limited access to oncologists were consistently reported by patients and professionals. Nyangasi et al. (2023) also identified persistent delays in care delivery, even after decentralization in Kenya, reflecting broader systemic issues in LMIC oncology services.
- Interdisciplinary teamwork and access to technology were valued facilitators of care. Healthcare professionals in your study rated teamwork highly (mean = 4.04), aligning with Steenbergen et al. (2022), who highlighted the impact of multidisciplinary cancer care on improved outcomes and patient-centered decision-making.

Discussion

- Communication breakdowns including language barriers, lack of psychosocial support, and rushed consent processes were identified as major obstacles. Vaccaro et al. (2019) similarly found that ineffective communication and poor emotional support hinder patient engagement and satisfaction.
- Human resource limitations such as staff shortages, inadequate oncology training, and outdated infrastructure were widely reported. These challenges were also highlighted by Collaço et al. (2024), who identified coordination gaps and under-resourced systems as barriers to care continuity.
- Training gaps and lack of protocols were emphasized, with providers advocating for regular CMEs, clear clinical guidelines, and better leadership. Hunter et al. (2021) and Hennings (2024) supported these recommendations, calling for national frameworks and defined care roles to streamline integrative oncology practices.
- Integration of palliative and supportive care into mainstream cancer treatment was recommended for better quality of life and reduced care burden. Laureline Gatellier et al. (2023) demonstrated that such integration improves physical, emotional, and economic outcomes, especially for patients with advanced cancer.

Discussion

Methodological Strengths

- **Mixed-methods design:** Combined quantitative (surveys) and qualitative (interviews) approaches for a comprehensive evaluation.
- **Multi-stakeholder inclusion:** Engaged patients, healthcare professionals, and administrators to provide a holistic view of oncology service delivery.
- **Contextual relevance:** Conducted in a Kenyan quaternary care hospital, making findings applicable to other LMIC settings.

Study Limitations

- **Convenience sampling for patients:** May have introduced selection bias and limited the generalizability of findings.
- **Self-reported data:** Potential for response bias or social desirability bias, especially regarding satisfaction and perceived quality.
- **Short data collection window:** Two-month period may have missed long-term patterns or seasonal effects.

Recommendation

Integrated Care at the Individual Patient Level

- Foster strong, trust-based communication between patients and all healthcare professionals by promoting shared decision-making, patient activation, and individualized care planning.
- Involve **primary care providers (PCPs)** as active members of the **multidisciplinary care team** from the point of cancer diagnosis through to survivorship.
- Ensure **direct and efficient communication** channels (e.g., dedicated phone lines or secure email systems) between primary and secondary care providers to support timely updates and coordinated care.
- Develop and implement **survivorship care plans** tailored to individual needs, emphasizing long-term wellness, goal setting, and patient empowerment.

Recommendation

Integrated Care at the Organizational Level

- Provide **additional oncology-specific training** for primary care providers to equip them for roles in post-treatment and survivorship care.
- Facilitate **interdisciplinary understanding** by organizing joint training sessions and team-building activities to build mutual respect and awareness of each professional's role.
- Clearly **define and communicate roles and responsibilities** within primary and secondary care teams to both providers and patients.
- Establish and implement **standardized protocols and care guidelines** for ongoing cancer management and follow-up.
- Introduce **care coordinators, community link workers, or patient navigators** to assist with appointment scheduling, inter-provider communication, and patient guidance.

Conclusion

- This study found that financial burdens, long waiting times, high treatment costs, and emotional distress are major barriers to effective oncology care, significantly impacting patient satisfaction.
- While healthcare providers highlighted strengths like interdisciplinary collaboration and access to advanced technology, these are undermined by workforce shortages, poor communication, and weak infrastructure.
- The alignment of patient and provider perspectives underscores the need for systemic reforms to improve resource allocation, strengthen the workforce, and enhance patient-centered care.

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THANK YOU