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Short Communication

Perspectives of healthcare workers on chemotherapy treatment in selected facilities in Kenya

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ABSTRACT

Healthcare workers are better placed to recognize the drivers of the cancer health care experience by patients, an important ingredient in shaping the realization of the third pillar of the Kenya National Cancer Control Strategy. To adequately assess health systems and identify bottlenecks in cancer care, a triumvirate of factors including patient, health system, and health workforce need to be considered. For context, Kenya's health ministry reports that 70-80% of cancer patients in Kenya are diagnosed at an advanced stage of the disease, a pointer to a gap in the detection and linkage of cancer patients to care. With increasing cancer incidence, cancer treatment centres will experience increased patient loads and will be overwhelmed in addressing individualized patient needs. Health workers can offer information on what the cancer care situation is currently like, and lessons drawn from their experience used to create adequate health systems. An adequate health system has been fashioned as one that not only address patients' needs but also generates adequate information needed to inform the transformation of those systems in line with the goals contemplated in quality healthcare. The aim of this study was to explore (i) the perspectives of health workers on the characteristics of cancer patients seen in treatment facilities and (ii) the capacity of cancer treatment facilities in the management of cancer. A key informant approach using semi-structured interviews was carried out with sampled respondents consisting of health workers (n=12) in selected facilities who were providing outpatient chemotherapy treatment. Data analysis involved transcribing the interviews into first-person narratives and then analysed using the three-dimensional framework. Subsequently, thematic analysis was applied to generate themes. Data analysis generated three main themes: characteristics of patients receiving chemotherapy treatment, capacity of the facility to manage cancer patients, and factors that hinder effective cancer care provision. Cancer care in Kenya is impeded by poverty, staff shortages, and lack of adequate cancer care. There is a need to reorient cancer care with an emphasis on integrated cancer care delivery modalities.

Keywords: Cancer, Chemotherapy, Integration

INTRODUCTION

Kenya's health workforce faces a myriad of challenges that include infrastructural and suboptimal service delivery. The shortage of health workers and work tools is not unusual, and these shortages have their most acute feel in cancer care. Due to weak health systems, the ravenousness of, and the catastrophic expenditure associated with cancer and its antecedents, a cancer patient in a typical Kenyan setting will experience 'treatment and persistent struggle scene', and healthcare providers will experience 'the extra baggage of unmet psychosocial concerns".[1] These experiences are at variance with article 43(a) of the constitution of Kenya,

2010, which guarantees every person the right to the highest attainable standard of health.[2]

A recent report by the national cancer control strategy shows that Kenya has only 12 specialized cancer units, half of which are private. This points to a deficient supply of cancer care, forcing many patients to seek cancer care in far-flung facilities, which provide only 28% cancer coverage.[3] Cancer is an emerging disease and, and going by the current trends, it is projected that there will be an estimated 95,217 incident cases by 2040 due to various population dynamics.[4] Therefore, this projection requires the creation of effective health systems in which expanded cancer care needs will be experienced. The world health organization advises that effective health systems should comprise six core building blocks: service delivery, health workforce, health information systems, access to essential medicines, financing, and governance.[5] Of immediate importance to this system is its output, that is, the availability of needed care, which denotes the ability of the system to stock and supply sufficient health workers with the competencies and mix of skills to meet the health needs of cancer patients.[6-8]

Whereas, from a technical standpoint, chemotherapy treatment facilities have adequate care supply to meet health system demands for cancer, this position remains speculative, as Mulemi in his monographs-coping with cancer and adversity and cancer crisis and treatment ambiguity in Kenya has explained.[1,9,10] Access to health care has been fashioned from three perspectives: physical access, acceptability, and affordability, which meet the patient's specific health needs.[11] This triumvirate of factors is simplistic if looked at without dissecting their most salient aspect: the quality of the accessible service. The concept of quality in clinical practice has been extensively examined. A systematic review has conceptualized quality as being referred from the perspective of policy, provider, and the patient.[12] To this extent, all these components must work together with one goal in mind, patient satisfaction with the care that guarantees complete access.

Hospitals exist to exercise professionalism by providing good service, described by the WHO as effective, safe, and of quality to those needing it.[13] This definition transfers the duty of quality evaluation to the patient, while conferring the obligation of quality care provision to the healthcare provider. From the patient perspective, patient-centered care is the most paramount component of care and has been themed under the ambit of information for patients, communication between patients and providers, coordination of care, timeliness of care, responsibility for care, personalized care, and psychosocial support which is vital in a disease of long-lasting engagement like cancer.[14] To meet patient-centered care requirements, facilities must have an appropriate distributive and qualitative cadre of health workers to meet patient demands. In Kenya, there is an artificial shortage of health workers and, generally, the health worker-patient ratio is below recommendation.[15] The lack of adequate equipment and staff to manage cancer has been documented in KNH and in MTRH.[1,16-18] This study sought to explore the perspectives of health workers on cancer care in selected facilities in Kenya.

METHODS

Study design and setting

This was a qualitative cross-sectional descriptive study conducted at Kenyatta national hospital and the coast general teaching and referral hospital.

Participants and sample size

In-depth key informant interviews (KII) were conducted between the investigator and health workers involved in chemotherapy treatment. A sample size of 6 key informants (KIs) from Kenyatta national hospital and coast general teaching and referral hospital, respectively, was purposively selected to get a total of 12 KIs. The choice of KNH and CGTRH was purposeful.

Data collection

Data were collected face-to-face between November and December 2022 using a voice recorder. The flow of the discussion was guided using a semi-structured interview guide administered to key informants (KIs) comprising health workers at Kenyatta national hospital and coast general teaching and referral hospital. Both the facilities and the KIs were purposively selected. The interview guide focused on the perceptions the KIs on chemotherapy treatment from the perspective of the healthcare worker.

Data analysis

Data were deductively analysed by generating themes relevant to the objectives of the study. First, the recorded data were transcribed, through repeated playbacks for accuracy, into a word document. The recordings were re-listened to, and again, making comparisons with the transcribed word document to ensure that all relevant information to the study had been correctly captured and realigned by the researcher according to the objective of the study, with an emphasis on what and how it was said.[19] The second step involved generating units of relevance based on the alignment of the information gathered with the objectives of the study. Four important codes of relevance were highlighted regarding the characteristics of patients, factors of the health system, factors of disease, and health education support for the adherence to chemotherapy treatment, according to the specific objectives of the study. The researcher relied heavily on deductive approaches of data analysis, and was guided by the three-dimensional narrative framework that characterizes the elements of qualitative enquiry through the prism of time, place, and scene.[30,21]

Ethical considerations

The study was approved by the national commission for science technology and innovation (NACOSTI) and the hospital ERBs in both facilities (see attachments). The participants consented to answer questions about various aspects of cancer care offered in the treatment facilities in accordance with the principles of autonomy.

RESULTS

The following are themes generated from the study.

Theme 1: characteristics of patients who receive chemotherapy treatment

To gain an understanding of the characteristics of patients that health care workers attended to in treatment centres, participants described their patients as needy or poor, mostly women, who presented late for treatment.

"Our cancer patients are in dire need of any form of support, particularly with regard to health education and finances. For example, Faraja, a nongovernmental organization, is trying to provide meals, but certainly there is a need for more support regarding patient expectations and the course of the disease, because many cases have low survival due to late diagnosis (KI 1)."

"Our patients are really in dire need, sometimes we as health care providers have to assist some patients with transportation costs back home because they cannot afford to walk back home especially after receiving chemotherapy because some are so frail, particularly the old ones (KI 2)*."*

Regarding the most prevalent cancer types, the KIs in both centres revealed that breast and cervical cancer were the most common cancers among women, while prostate cancer was the most common among men. The finding demonstrates that cancer treatment is financially demanding and makes coping even worse, particularly for those who are economically disadvantaged.

Theme 2: capacity of the facility to manage cancer patients

Although the KIs reported general care inadequacies, particularly related to the size of the treatment centres, the participants felt that the facilities had adequate capacity to treat cancer patients.

"The facility lacks drugs most of the time, and when patients are forced to buy their drugs, they are charged 4600ksh for administration, yet NHIF does not cover this cost (KI 4)."

"The turnaround time is too long. The facility also does not recognize laboratory results from laboratories outside the facility, leading to duplicity and delays in care (KI 11)."

"Look at this unit, it is so small that it cannot accommodate 20 patients at once; this results in a lot of congestion and difficult working conditions (KI 9)."

Theme 3: factors that hinder effective cancer management

The participants felt that there were some aspects of the reorganization of the clinic that needed to be re-aligned to improve the chemotherapy experience for the cancer patient.

"Looking at this unit, it is so small that it cannot accommodate 20 patients at once; this results in a lot of congestion and difficult working conditions (KI 9)."

"Let them (Management) increase the number of staff trained in oncology and ensure no drug stock-outs (KI 4 and KI 5)."

"They (management) should also incorporate other actors of care, such as nutritionists, patient navigators, and decentralization of chemotherapy dispensation would go a long way in decongesting the facilities (KI 11*)."*

"The hospital should have a transfusion centre dedicated to cancer patients so that those who need transfusion can access it without delaying treatment due to referral to transfusion feeder facilities (KI 6 and KI 7*)."*

DISCUSSION

This study aimed to explore the perspectives of healthcare workers on factors that shape chemotherapy treatment. The findings suggest that the majority of cancer patients seen in treatment centres are women. This finding is not unusual and has been discussed both from a social construction of gender standpoint and from epidemiology of cancer that shows breast cancer, which commonly affects females, as the most prevalent cancer in Kenya.[22-25] Kenya's cancer situation is special; first, The economist labelled cancer a worse diseases than AIDs in terms of disease burden.[26] Second, Kenya is generally a poor country, and the financial demands placed on individuals due to cancer treatment can be overwhelming and can hinder adherence to treatment. Despite this, the attendance of appointments even when patients do not know how to get transportation facilitation reinforces the view that when a disease is severe and there are perceived benefits of treatment, viewed through Rosenstock's lens, the patient will most likely, as monographed in coping with cancer and adversity, show up for treatment.[1]

Delayed initiation of treatment, that is, any period of time lapse of more than one month between diagnosis and the start of chemotherapy is a policy failure that Kenya must address as part of ongoing efforts to strengthen cancer

care.[27] Many factors, particularly finances, have been identified to contribute to delayed initiation of treatment. It can be deduced that patents diagnosed with cancer and have an inactive NHIF must wait 60 days for the 'maturity' of NHIF before starting chemotherapy treatment. One possible explanation of having an inactive NHIF is because of poverty, which, in this study, is a constant theme. The delayed initiation of treatment reported by the respondents in this study agrees with the literature and has been attributed to poverty and poor scores on the Eastern cooperative oncology group (ECOG) performance status, increased distance to treatment facilities[30] and advanced disease at presentation which agrees with data from Kenya that 80% of cancer patients present for treatment late in the disease and may explain the worse scores on ECOG.[28-31]

Frequent stockouts of cancer drugs and other commodities identified in this study is an inherent weakness in the cancer care continuum that has been highlighted in the national cancer control strategy.[3] Availability of drugs is an important health system ingredient as Ferrinho, points out that an effective health system should comprise six core building blocks: service delivery, health workforce, health information systems, access to essential medicines, financing, and governance.[32] When there are drug stock outs, patients waste their time coming to the facility, miss treatment, and therefore suffer reduced drug efficacy, and health care workers become helpless in their quest to offer quality care.[33] has demonstrated the negative consequences of drug stock outs in cancer outcomes while Davey has argued for the mapping of factors that lead to cancer medicines stockouts particularly in Sub-Sahan Africa, to which countries can borrow from the six policy recommendations to address cancer medicines shortages in Europe.[34,35] Furthermore, with respect to information, health systems must be integrated to stem repetitions that add to the tragedy of catastrophic health expenditure and delayed care delivery.

Congestion in cancer care facilities[1] is a recurring theme, that has refused currently available remedies due to several factors.[17,36] First, health facilities in Kenya are generally and chronically congested due to weak referral systems.[37] Specifically for cancer, congestion stems from two angles. First, cancer is a new disease in Kenya, and still suffers from the pitfalls that have visited neglected tropical diseases in the past, as it does not feature in the Kenya health facility census report and therefore cancer treatment canters will be found in very rudimentary structures in hospitals. Second, Kenya has only 12 cancer care canters that serve people from far flung areas and therefore prone to congestion amidst few staff.[38,39] This finding is consistent with the current result in which KIs were of the view that treatment centres should increase the number of staff trained in the care of cancer patients, as well as demonstrating a desire to expand cancer centres to handle existing and projected care demand.

The philosophical organization of healthcare care delivery, ceteris paribus, is to create an omnibus care model that strives to meet most of the needs of patients. Realizing that some needs are more important than others, typical care models are aligned to the ideals of egalitarianism, Sufficientarianism, and prioritarianism.[40] This stratification of care supply coupled with diminishing health care resources invariably results in a significant patient population missing out on some aspects of care, as the findings of this study demonstrate. An important theme in this study is the unrealized integration of cancer care among ancillary care functions.[41] Defined integrating care as a deliberate effort of amalgamating inputs, delivery, management, and organization of health services. Although integration in cancer care is a concept that is still evolving, lessons can be drawn from HIV and nutrition, that demonstrate that integration of care reduces disease burden and improves holistic care, which is an important concept in cancer.[42-45] An important theme that emerged was the idea of decentralizing chemotherapy. Although it is hypothesized that chemotherapy schedule design should result from elegant hypothesis, serendipity, and pragmatism, it is possible that ambulatory chemotherapy administration can be trialled under the ambit of homebased care, which would be novel in Kenya for cancer.[46,47] This would, as the participants noted, help decongest the treatment centres and reduce the chances that patients would miss treatment due to travel costs. Furthermore, ambulatory chemotherapy may result in individualized care that adopts a holistic care approach.

CONCLUSION

Cancer care in Kenya has numerous challenges that frustrate the achievement of the health goals espoused in the sustainable development goals. First, poverty and the existential threat of catastrophic health expenditures hinder cancer care access. Second, the shortage of staff both qualitatively and quantitatively to handle increasing cases of cancer, as well as the shortage of cancer care commodities, is an impediment to staff satisfaction and cancer outcomes. There is need for targeted expansion of cancer care facilities and redesign of cancer care delivery policies that will deliberately result in integrated cancer care.

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