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# Health care seeking behaviors and perspective on indigenous palliative care among cancer patients in Kenya

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## Abstract

**Introduction:** Holistic integrated community palliative care services remain a mirage to cancer patients. Nonetheless, a number of cancer patients are jamming traditional medicinal places seeking therapy. The results of these visits are undocumented. This study explored healthcare seeking behaviors and perspectives on cancer indigenous palliative care among patients visiting traditional health practitioners in Kenya.

**Methods:** A cross-sectional study was undertaken through client exit survey. Face to face interviews were conducted using semi-structured questionnaires with all consenting cancer patients exiting mapped outlets. Data was analyzed using Statistical Package for Social Science Version 22.0.

**Results:** A total of 433 respondents were interviewed and the majority were female 59.6%, Christians 97.2%, married 89.8% and educated 85.7%. Their mean age was  $48.25 \pm 15.58$ . Education, sex and religion were significantly associated with perceived improvement. The predominant cancer types were breast cancer (22.4%); throat (14.8%), prostate (12.9%), bone (12.5%), cervical (9.9%), stomach (6.0%) and skin cancer (5.1%). The most frequently used traditional medicine was herbal medicine that was driven by unresponsive conditions (42.2%), inaccessible biomedical services (18.8%) and yearning for second opinion (18%) over a condition. Seventy six percent of the respondents reported improved and prolonged quality of life. 78.2% reported improved eating, drinking, standing, walking and doing light duties alone. Patients felt healthier, hopeful, happier, confident and bonded to their families.

**Conclusions:** Use of indigenous palliative care is predominant to all major cancer conditions and driven by the quest for cure, successful stories, trustworthiness and beliefs, previous experience and avoiding medical procedures such as surgery.

## Keywords

Cancer patients, indigenous palliative care

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## Introduction

Cancer is a major public health issue<sup>1,2</sup> and responsible for an estimated 9.6 million deaths in 2018.<sup>3</sup> Globally, one in six deaths is attributed to cancer and 70% of these deaths occur in developing countries.<sup>2,3</sup> Lung, colorectal, stomach, liver and breast cancer are the most common causes of cancer deaths. The diversity, magnitude and profile however vary between and within people's background.<sup>2</sup> The impact of cancer on life expectancy and lifestyles is significant and increasing rapidly.<sup>4,5</sup> Kenya like other countries in Sub-Saharan Africa is faced with an enormous burden of cancer.<sup>2,6</sup> Cancer ranks third as one of the most common diseases with a mortality rate of 7% per annum and is expected to double by 2025.<sup>7</sup> Cases of cancer are increasing at an alarming rate and over 39,000

new cases are diagnosed while 27,000 die of cancer each year.<sup>8</sup> For example, the number of new prostate cancer cases in Kenya tripled between 1990 and 2013, up from 546 to 2127 whilst, breast cancer cases among women increased from 1881 to 4499. The prevalence of breast

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and cervical cancer is at 34 per 100,000 and 25 per 100,000 respectively. While, for men, the rate of prostate and esophageal are 17 per 100,000 and 9 per 100,000 correspondingly.<sup>8</sup> Furthermore, deaths among Kenyan men from prostate cancer increased by 108%, compared to a 50% increase from stomach cancer. Deaths from pancreatic cancer in women jumped by 111%, while the number of deaths from stomach cancer decreased by 11%.<sup>6,9</sup>

Cancer places a heavy burden on both the patients, families and care-givers.<sup>10</sup> Access to acceptable and appropriate cancer management services remains a key priority worldwide.<sup>4</sup> Service providers and policy-makers face considerable uncertainty over ways to provide patterns of care relative to key drivers such as geographical and cultural, needs and desires of communities at large.<sup>11</sup> The complex nature of cancer management has roped in a wider range of disciplines and health seeking behaviors.<sup>12,13</sup> Supportive care is increasingly being seen as a core component to quality cancer care and the needs remain unmet during treatment and post-treatment.<sup>1</sup> A vast majority of cancer patients frequent traditional health practitioners (THPs) outlets for healing and supportive treatment.<sup>14,15</sup> However, the trend of utilization and benefits to primary healthcare are not well documented.

Traditional medicine, as defined by the World Health Organization, is the sum total of the knowledge, skills, and practices based on the theories, beliefs, and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health as well as in the prevention, diagnosis, improvement, or treatment of physical and mental illness.<sup>16</sup> The perception of ailments, cure and recovery are embedded in complex and unique traditional health system. Historically, Kenyan, communities have practiced a specialized integrated health system consisting of herbal medicine, surgery, sorcery, sacrificial animals and charms.<sup>17</sup> Traditional surgeons from indigenous communities such as the Kisii, Meru, Kuria and Marakwet performed simple to complicated surgical procedures such as craniotomy and tonsillectomy.<sup>17</sup> Herbalists on the other hand, treated simple ailments such as stomach ache, chronic conditions such as diabetes, cancer and to complex issues such as mental illness and infertility in women from plants derived from Kenya's biodiversity.<sup>15,18</sup> Kenya is endowed with a rich biodiversity with over 1200 species of plants that have been touted to afford therapeutic benefits to humans and animals.<sup>19</sup> The family Mimosaceae, Euphorbiaceae and Asteraceae is reported to have the highest number of species with medicinal properties.<sup>17</sup> Many unsubstantiated claims have been made on the efficacy of medicinal plants concerning the diseases they cure or the value they provide.<sup>19</sup> Additionally, similar plants are reportedly used to treat different conditions.<sup>18</sup> In some instances, herbal remedies are combined with conventional medicine to manage a given condition<sup>17</sup> while others are adulterated with the belief that the therapeutic

effects will increase many fold.<sup>20</sup> Social marketing is pronounced with many herbalists using attractive language and catchy phrases to lure patients.<sup>20</sup>

Kenya lacks clear legal and policy guidelines on traditional medicine and mainstreaming pathway.<sup>21</sup> Therefore, there is a need for research to highlight the positive and negative aspects of traditional medicine,<sup>19</sup> more so for degenerative conditions such as cancer. In many culturally endowed communities in Kenya, the etiology of cancer is embedded in significant cultural differences in the way disease and disease management are dealt with.<sup>14</sup> Nonetheless, very little is known about the patients' perspective regarding indigenous palliative care<sup>22</sup> and appropriate ways to improve it. This study therefore characterized the patients seeking healthcare seeking behaviors and perspective on indigenous palliative care with a view to informing healthcare policy. Assessing patients' experiences of care and treatment also highlights areas that need to be exploited to provide critical intervention of making palliative care available and accessible to all in both urban and rural settings<sup>23</sup> in Kenya.

## Materials and methods

This was a cross-sectional study to determine health care seeking behaviors and perspective on indigenous palliative care among cancer patients visiting THPs in Kenya. It was undertaken through client exit survey. This study was hinged on the bow tie model of 21st Century palliative care.<sup>24</sup> As shown in Figure 1. The model triad elements, consists of two overlapping triangles representing disease management and palliative care respectively looped by an arrow indicating dynamic process with a gradual switch in focus and possible outcomes such as death, quality of life, or survival.<sup>24</sup> The central theme of the model is survivorship<sup>24</sup> The Framework emphasizes that people affected by diseases such as cancer have varied needs over the course of their journey and thus require services from multiple providers at various times<sup>24</sup> and supportive care is not

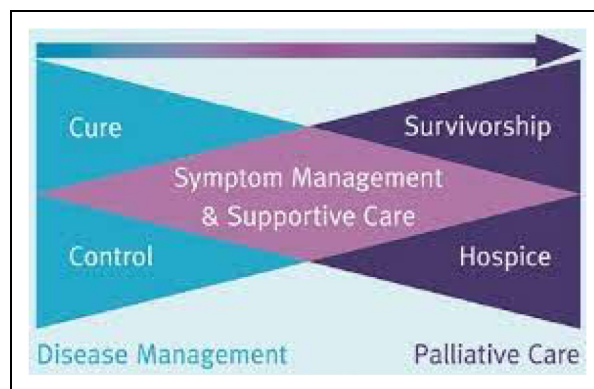


Figure 1. Bow Tie palliative model.<sup>24</sup>

exclusively provided by one discipline or agency.<sup>1</sup> One such service is indigenous palliative care services grounded on a cultural belief system. These cultural services remain integral to care provision but remain unexplored.

### Study areas

The study was undertaken in urban and in specific rural areas with highly renowned and famous indigenous health practitioners in Kenya. One hundred and ninety-one against eight hundred mapped herbalists were identified to manage cancer. Most selected traditional health practitioners have several satellite clinics at different towns and visit each clinic at stipulated time and client exit interviews were undertaken in all clinics. This scenario biased the proportionate distribution of the sample size and skewed dates to particular THPs. To mitigate and broaden the base of the data, distribution was per ecological region and client load proportionately.

**Sampling procedure.** Exit interviews were conducted with cancer patients leaving the traditional practitioners' outlets and/or adult caregivers on behalf of the patient. Non cancer, those unwilling to participate and referral cases were excluded from the study. The study used Krejcie and Morgan 1970 Formula,<sup>25</sup> to determine minimum sample size as provided below.

$$S = X^2NP(1 - P) / d^2(N - 1) + P(1 - P)$$

In which

$S$  = required sample size.

$X^2$  = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841).

$N$  = the population size.

$P$  = the population proportion (assumed to be 0.50 since this would provide the maximum sample size).

$d$  = the degree of accuracy expressed as a proportion (0.05).

Fifty percent (proportion of interest) was applied as most conservative sample size estimate with 5% to account for non-response. This provided a sample size of 403.

A structured modular questionnaire was used to collect data. As shown in annex 1, the questionnaire modules included screening and consent, client demographics, diagnosis and treatment, and client satisfaction. Prior informed consent form was administered. Research assistants were trained on the principle of human subjects, purpose of the study and research ethics. Confidentiality was maintained. Non-eligible clients were disengaged and informed why. Pilot survey was undertaken in Nairobi County, to determine the feasibility of the methods and tools. Quality control was undertaken throughout the study period. In principle, all study participants observed general ethical principles of

respect for persons, beneficence and justice. Data was de-identified prior to data entry, analysis and reporting. All data cleaning and analysis was conducted in the statistical package for social science (SPSS) version 22.0.

### Ethical considerations

All willing THPs were informed of the study protocol and requested to consent for their clients to be interviewed. An ethical approval was obtained from Kenyatta hospital-Nairobi University Ethics Review Committee Kenyatta National Hospital-Ethics and Research Committee/A/319 and National Commission for Science, Technology and Innovation, NACOSTI/P/18/41197/24208. All consenting persons were asked to sign prior informed consent forms as per ethical approval requirements. No direct benefits were provided to consenting respondents in exchange for the information.

## Results

### Demographic characteristics

A total of 482 clients exiting the selected THPs outlets were screened however only 441 (91.5%) were interviewed. The rest were either in severe pain, referred or those who refused to consent. Against the 441 returns, 8 questionnaires were incomplete and therefore excluded from analysis. Table 1. presents the social demographics characteristics of the respondents. The mean age was  $48.25 \pm 15.58$  years. The majority of the respondents were female 59.6%, Christians 97.2%, married 89.8% and educated 85.7%. The dominant ethnic communities were Kalenjin 43.4%, Luhya 21.0%, Kikuyu 15.0%, Kamba 6.9% and Kisii 4.2%. Forty-two of the respondents had traveled for more than three hours to reach the clinic/service provider. The major means of transport was vehicle 58.2%, foot 24.7%, motorbike 9.5% and bicycle 7.6%. At the time of the interview, 16.2% of the participants had been sick for more than 7 years, 26.6% for between 5–6 years and 23.8% for between 3–4 years. And 18.5% and 15% had been sick for 1–2 years and less than one year respectively.

### Common cancer cases/condition

The predominant reported cancer cases were breast 97 (22.4%); throat 64 (14.8%), prostate 56 (12.9%), bone 54 (12.5%), cervical 43 (9.9%), stomach 26 (6.0%) and skin cancer 22 (5.1%). Other types included colon 16 (3.7%), wound 15 (3.5%), uterine 14 (3.2%), organ (liver/lung/kidney) 6 (1.4%), mouth 6 (1.4%), ovarian 5 (1.2%) and brain cancer 4 (0.9%). Three hundred and forty-two (79%) of the cases were diagnosed conventionally, 13.6% by Traditional Health Practitioner (THP) and 7.4% had self-diagnosis as illustrated in Figure 2.

**Table 1.** Social demographics characteristics of the respondents (n = 433).

Parameter	Frequencies (%)	Parameter	Frequencies (%)
<b>Age</b>		<b>Education</b>	
<26 years	25 (5.8)	None	62 (14.3)
26–35 years	73 (16.9)	Primary	174 (40.2)
36–45 years	107 (24.7)	Secondary	160 (37.0)
46–55 years	108 (24.9)	Tertiary	37 (8.5)
56–65 years	52 (12)		
Above 65 years	68 (15.7)		
Mean age	48.25 ± 15.58		
<b>Sex</b>		<b>Time to outlet</b>	
Male	175 (40.4)	<1 h	111 (25.6)
Female	258 (59.6)	1–3 h	140 (32.3)
		>3 h	182 (42.0)
<b>Marital status</b>		<b>Religion</b>	
Married	389 (89.8)	None	6 (1.4)
Single	39 (9)	Christians	421 (97.2)
Widowed	5 (1.2)	Muslims	6 (1.4)
<b>Ethnicity</b>		<b>Period of sickness</b>	
Aembu/ Meru	10 (2.3)	<1 yr	65 (15)
Kalenjin	188 (43.4)	1–2 yr	80 (18.5)
Kamba	30 (6.9)	3–4 yr	103 (23.8)
Kikuyu	65 (15.0)	5–6 yr	115 (26.6)
Gusii	18 (4.2)	>7 yr	70 (16.2)
Luhya	91 (21.0)		
Luo	13 (3.0)		
Maasai	12 (2.8)		
Mijikenda	6 (1.4)		
<b>Transport</b>		<b>Main source of income</b>	
Foot	107 (24.7)	Business	95 (21.9)
Bicycle	33 (7.6)	Employment	29 (6.7)
Motorbike	41 (9.5)	Farming	309 (71.4)
Vehicle	252 (58.2)		

The most common signs and symptoms for cancer diagnosis by THP and individual patients are swelling, tumor, inflammation and painless wound 50 (54.9%), prostate enlargement, blockage and pain while urinating 17 (18.7%), and difficult in swallowing, painful throat, hoarse voice 9 (9.9%). Other symptoms included vaginal discharge, swollen and painful uterus and nipple 7 (7.7%), skin rash, wounds and piercing pain, 3 (3.3%) while 5 (5.5%) resigned to having cancer after seeking biomedical services without recovery.

### Knowledge of THP and drivers of seeking services

Slightly over 21 percent of the 433 respondents were making the first visit to the THP. Prior to visiting THP, 94.7% had received conventional biomedical services. The drivers of seeking THP services included conditions which were not improving 42.2%, inaccessible biomedical services 18.8%

while 18% were seeking second opinion over the condition. Success stories from other patients triggered 4.9% of the respondents whereas 1.2% believed and trusted herbal medicine. Whereas 2.7% opted for indigenous regimen to avoid surgery while 12.2% did not disclose the reasons as shown in Table 2.

Referral remains the central pillar for patient-THP linkage. From this study, 46.4% of the respondents were referred by friends/neighbors, 33.7% by relatives, 12% by the other patients and 2.3% by other THP. Only 5.5% visited without referral.

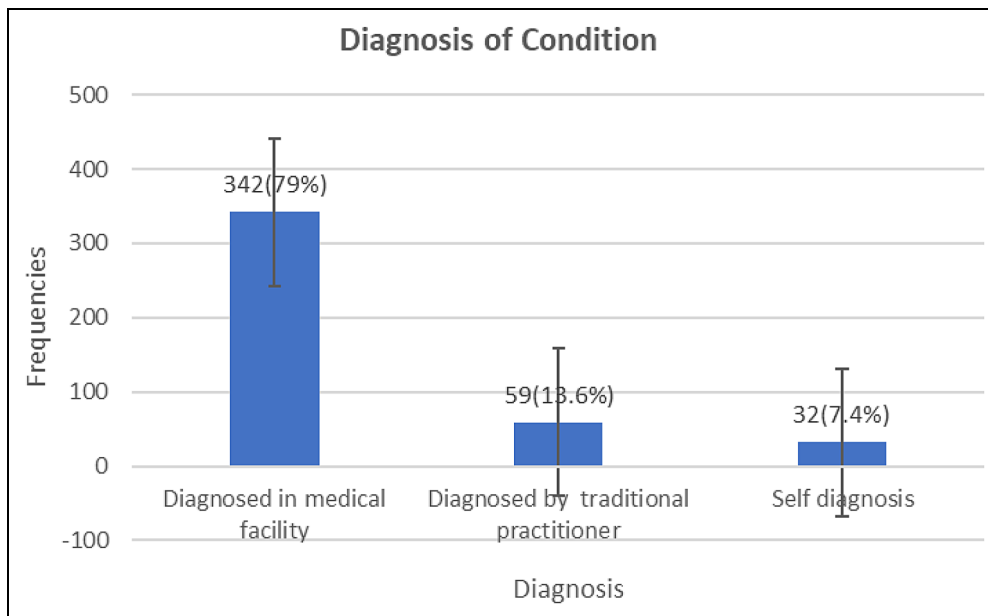
### Diagnosis and treatment process

Three quarter of the respondents (76.2%) reported that they were examined by the THP before being given medication. Twenty two percent were not while 0.9% did not respond. Oral and physical examination 82.1% was the predominant method of examination followed by use of quantum resonance machine 7.3%, then patient medical records complimented by physical examination 6.7% then medical laboratory and x-ray 3.3% as shown in Table 3.

The key oral question was whether the patient is currently on other medication 83.6%, respondents' medical history 76.7%, family brief 39.5% personal lifestyle 37.4% and child bearing status 20.8% as summarized in Figure 3

For those on conventional medication, 215 (59.6%) were advised to combine both conventional and herbal medicine, 53 (14.7%) were informed to stop conventional and start herbal, 36 (10%) told to finish conventional then start herbal, 29 (8%) advised how to use given herbal but no direction on conventional while 28 (7.8%) were told not combine but select one. Majority of the respondents were given and prescribed herbal medication apart from 3% amongst whom 69.2% were checked and given a clean bill of health but advised to continue with fruits and fluids while 7.7% were not given drugs to avoid over-medication. Nevertheless, 23.1% missed herbal regimen due to money. The provided regimen was in the form of raw plant material's 80%, syrup, 55%, ointment 14.5%, tablet 5% and injection 8.1% while 12.2% were given prescription on herbal regimen to mix and consume.

The importance of finishing the whole dose of medication and dosage preparation 46.9% and foods to eat or avoid 46.2% were key take home messages. Additionally, the respondents were guided on actions to take if there was no improvement after completing regimen (30%) and recourse in case they vomited after medication 9%. Other therapies recommended to the recipient included nutritional 80.7%, lifestyle changes 51.3%, spiritual nourishment 14.7%, massage 12.5% and exercise 37.3%. Majority of the respondents, 97.2% said they were given a review date. The information provided was rated as more than enough by 51% while 43% thought the information was adequate and 6% felt the provided information was insufficient.



**Figure 2.** How THPs diagnosed cancer conditions.

**Table 2.** Knowledge of THP and reason/drivers of seeking THP services.

Knowledge of THP	Reasons for seeking THP services	
	F (%)	F (%)
Referral by relatives	146 (33.7)	Non improving conditions 173 (42.2)
Referrals by friends	201 (46.4)	Inaccessible medical services 77 (18.8)
Referrals by a patient	52 (12)	Seeking second opinion 74 (18)
Referrals by a THP	10 (2.3)	Success stories from patients 20 (4.9)
Self-discovery	24 (5.5)	Avoid surgery 11(2.7)
		Trust in herbal medicine 5 (1.2)
		Not disclosed reasons 50 (12.2)

**The effects of indigenous traditional medicine use**

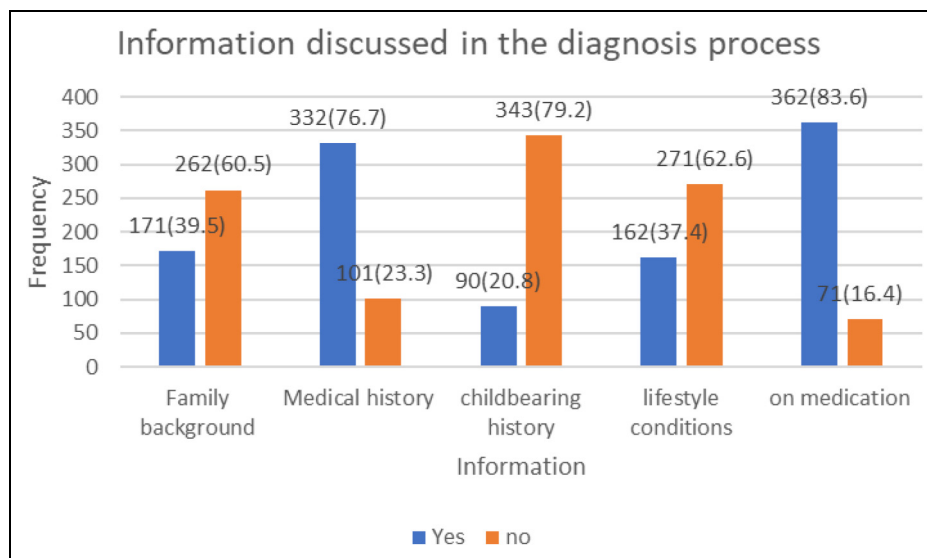
Table 4. present the result of the effect of indigenous traditional medicine use. More than 76% visiting the THP for review (second time or above) reported to have improved after taking THP regimen with 70% being able to do some work. For example, 78.2% started eating, walking, standing and doing some duties with ease, 10.9% started eating, drinking and talking with ease while 6.9% noted that wounds, tumor dried and pain subsided.

Four percent of participants self-reported that they were able to urinate without pain. Some of the performed works

**Table 3.** Medica examinations approaches.

	Frequency	Percent
Medical laboratory and/or x-ray examination	11	3.3
Oral and physical examination for symptoms	270	82.1
Referred to medical records and performed physical examination	22	6.7
Use of quantum resonance machine	24	7.3
Used divine spirits.	2	.6
<b>Total</b>	<b>329</b>	<b>100.0</b>

included household chores, farming, construction, office work and sex. One point two percent of the respondents reported no improvement and they were back to seek further direction. 1.4% were not sure. All the respondents who reported no improvement were female with breast 11.1%, uterine 9.3%, cervical 6.7% and throat 2.3% cancer respectively. Statistically, education (p=0.001), sex (p=0.024) and religion (p=0.045) were significantly associated with perceived improvement. No major negative side effect was reported but a few patients reported stomach upsets 11.8%, sleepiness 3.0%, increased pain 2.8% and vomiting 2.3%. Other than physical changes, 50.3% participants reported mental and psychological healing. For example, 54.1% from the 218 felt healthier, happier and stronger. While 38.5% reported less worries, 4.6%restored hope and confidence to live again and finally 2.8% said their family’s togetherness was restored. Nevertheless, 45% reported that herbal remedies alone are not sufficient to manage their conditions and desired supplements



**Figure 3.** Information requested during diagnosis process.

**Table 4.** The effects of indigenous traditional medicine use.

	Frequency	Percent
<i>Physical recovery</i>	33	10.9
Able to eat, drink and talk with ease		
Able to eat, walk, stand, sleep and do some duties with ease	237	78.2
Able to urinate without pain	12	4.0
The wounds, tumor have dried and pain subsided	21	6.9
Total	303	100.0
<i>Emotional recovery</i>		
Mentally comfortable with less worries	84	38.5
Healthy, happy and strong.	118	54.1
Hope and confidence to live again	10	4.6
Happy, united and working family	6	2.8
Total	218	100.0
<i>Negative side effect after medication</i>		
Stomach upsets	51	11.8
Sleepiness	13	3.0
Increased pain	12	2.8
Vomiting	10	2.3
No negative side effect	347	80.1

13.2%, balanced food 35.3%, spiritual nourishment 7.9%, massage 6% and conventional medicine 0.2%.

## Discussion

### Demographic characteristics

The study found that age is not a key factor in indigenous care but more women used the care than men. High prevalence of traditional care use among females (59.6%) has been reported in other studies. In a quantitative study, regarding the use of complementary medicine by cancer

patients in a National Hospital in Kenya 44.9% were male, while 55.1% were female.<sup>26</sup> In Taiwan, the ratio of Traditional health care users among women was more than that among men.<sup>11</sup> The study documented those patients who use indigenous care are better educated, religious and in marital relationship. This result is comparable to a population-based, case-control study in the USA that documented that breast cancer patients who use traditional health care are younger, educated, and more affluent.<sup>27</sup> Kalenjin, Luhya and Kikuyu were the predominant tribes, suggesting that ethnicity is a distinct health seeking behavioral factor in Kenya.

### Common conditions and diagnosis

The carcinomas that predominated were breast and cervical among females. While prostate cancer, throat and bone cancer primed for men. Other cancers; blood, stomach, colon and organ (liver/lung/kidney) cancer did not have any predilection to a specific gender. In this study, all the respondents with brain tumors were female. Majority of the cases were detected by medical diagnosis but apparently were self-diagnosis and THPs diagnosis. It is evidenced that African healers may observe or use a particular object to detect patient condition. The patient may also do self-observation and inform the healer.<sup>28</sup> Our results are consistent with these findings. The signature symptoms applied included prostate enlargement, blockage and pain while urinating for prostate cancer and difficulty in swallowing, painful throat, hoarse voice for throat cancer. Swelling, tumor, inflammation, rash and painless wound for eye, breast, skin and bone cancer. Abnormal vaginal discharge and bleeding, swollen and painful uterus for uterine cancer. For self-appraisal, projection of poor disease

prognosis after a length of non-recovery biomedical treatment were more predictive of cancer self-diagnosis. This finding resonates with the proposition that self-appraisal and TM use are critical in personal wellbeing.<sup>27</sup>

### *Knowledge of THP and driver of seeking services*

The study documented dualism in health seeking patterns among cancer patients. Majority of the respondents were on the second or more THP visit but had consulted conventional medicine practitioners first before visiting. Dualism is well documented in health care.<sup>22,28</sup> Use of indigenous traditional medicine in combination with conventional cancer therapies for the majority of cancer patients in Sub-Saharan Africa is common.<sup>22</sup> For people living with HIV and AIDS the dualism is converse. It is documented that people living with HIV and AIDS consulted THPs first before visiting conventional medicine practitioners.<sup>28</sup> Quest to find medication, get a second opinion about conditions and inaccessible biomedical services were the main drivers. Other factors included successful stories from other patients, trustworthiness and beliefs in herbal medicine as well as avoiding medical procedures such as surgery. Additionally, referral was the central tenant in patient-THP linkage. These pull factors in preventive, promotive and curative herbal care are well documented.<sup>26,29,30</sup> Dissatisfaction with conventional procedures, desperation for cure and ease of accessibility were documented by cancer patients visiting Kenyatta National hospital in Kenya.<sup>26</sup> Beliefs, network and experience indigenous to communities are central social and health behavioral change pillars with traditional medication.<sup>29,30</sup>

### *Diagnosis and treatment process*

Most THP's examine their patients before prescribing medication. Oral and physical examination was the main modality of examination. Patient clinical history, family background, lifestyle, child bearing status and present medication were the central themes during oral examination. Quantum resonance machine, patient medical records and medical laboratory and x-ray were modalities of examination. Although our study participants were not asked about the capacity, efficiency and efficacy of a quantum resonance machine in diagnosis of cancer, data from other studies suggest that exposure to quantum magnetic resonance therapy extends life expectancy and improves quality of life.<sup>31</sup> The authors add that quantum magnetic resonance therapy may safely be positioned in a palliative care setting to improve life expectancy and reduce and arrest tumor.<sup>31</sup> Exploration on the device types, capacity and the approach in which THP examines patients using quantum magnetic resonance is timely. The research may also document device models, effects and perceived outcomes.

Most of the cancer patients received herbal prescriptions apart from few, who were either given clean bill of health or

not given regimen to avoid over-medication. This finding provides insights on the know-how of the THPs on correct use, patient recovery trends, and medication safety and toxicity. As propagated by Welz et al.,<sup>30</sup> herbal medicine is widely used in communities for holistic treatment and practitioners are aware of medication limits and potential harm of mixing and adds awareness on over medicating. However, a few missed herbal regimens due to finance suggesting that inaccessibility to health transcend all forms of care. This finding agrees with the statement that while TM may be physically, socially and culturally more available it may not always be affordable.<sup>28</sup> The study revealed that cancer patients receive several forms of TM with major being raw plant material. Similar results were reported from a study in Kenyatta National Hospital, Nairobi, Kenya where the most common biological-based treatment was herbal treatment.<sup>26</sup> However, syrup, ointment, tablet and injection were also provided signifying that THPs have adopted value addition techniques. The use of multiple forms of indigenous traditional medicine is documented.<sup>27</sup> Majority of the clients who were on conventional medication were nevertheless advised to combine with provided herbal medicine. Though, a tenth were advised to stop conventional and start herbal while a similar cohort was told to finish conventional then start herbal. Another cohort was told to choose one medication model inferring that some THPs are aware of the effects of mixing medication.

The revealed that THPs are aware of the value of drug adherence. The THPs emphasized to the clients the importance of completing the entire dose and adopting the provided dosage preparation protocol. It is plausible that different regimens and doses are given taking account the patient condition, available herbs, formulation and shelf life. The finding infers that the traditional practitioners understand that different patients and conditions have different management needs. The practices are in tandem with Kenya National Palliative Care Guideline 2013.<sup>6</sup> Foods to eat or not as well as mitigation of side effects were also discussed. Health lifestyle modifications such as massage, exercise and spiritual nourishment were also advanced. It is important to note that the review date was given to the majority of the respondents, suggesting that THP profile their patients and follow up cases. Respondents concluded, the shared information was adequate and useful.

### *The effects of indigenous traditional medicine use*

The study participants reported physical, mental and psychological improvement after taking the indigenous medication. Respondents felt healthier, hopeful, confident, happier and bonded with families. Many respondents reported to have started talking, eating, drinking, standing and walking by themselves, unlike before. Others started doing house chores such as, farming, construction, office work and sex. Wounds and tumors dried while urinating



without pain. This finding suggests that indigenous services practice a holistic concept of health focusing on wellness of cancer patients, a phenomenal well documented.<sup>6,32,33</sup> This contrasts with the current biomedical model. However, the indigenous services are a replica of the envisioned continuum of palliative care that includes providing physical, psychological, social, and spiritual support.<sup>6</sup> All the respondents with a level of education, reported that the condition improved after taking the THP regimen. Since, education is the most powerful weapon to help differentiate bad and good, it is our hypothesis that the educated respondents were able to notice positive change after taking the medication. In this study, females with breast, uterine, cervical and throat cancer reported no improvement. Women were often very detailed and pronounced in judgmental activities. It is possible that this cohort of respondents were still skeptical of reporting changes. A phenomenon well reported by Harries et al. who wrote that women often take time to interpret change and attribute, impact and attribution of bodily changes; influence of health messaging; management of symptoms and help-seeking.<sup>34</sup>

Stomach upsets, sleepiness, increased pain and vomiting were documented side effects but by a few respondents. The effects may be grounded on multiple reasons including the concomitant use of herbs and drugs, new biochemical and phyto-constituents introduced by the natural products taken. The effect of new biochemical and phyto-constituents is reported that the quantity and quality of the bioactive substance from the herbs vary depending on the part of the plant used, environmental factors, method of collection and storage conditions and may affect the body differently. There is a need therefore for pharmacodynamics, pharmacokinetics and herbal- drug interaction research.<sup>35</sup> The study found that herbal medicine is not sufficient alone in the management of cancer. Rather need to be supplemented with supplementary foods, spiritual nourishment, massage and conventional medicine. This finding suggests that holistic care is very paramount whether in indigenous palliative care or the conventional approach. Patients on a second or third visit provided the health and wellness benefits of indigenous palliative care. The finding highlights the potential role of traditional medicine in reducing health disparities, vulnerabilities and power differentials, and advancing Universal Health Care as documented<sup>6,33</sup> and remains an exploited area in quest for effective and efficient palliative care program. This study was cross sectional and among the limitations of our study, was the unstipulated length of time of being on the traditional medicine treatment relative to healing perception. Thus, the associated results must be interpreted with caution.

## Conclusion

This is the first reported study in Kenya exploring healthcare seeking behaviors and perspective on indigenous palliative care among cancer patients visiting traditional health

practitioners. Use of indigenous herbal regimen is reported to improve quality of life both physically, mentally and psychologically. The benefits include improved eating, drinking, standing and walking doing light duties alone. Cancer patients felt healthier, hopeful, happier, confident and bonded to their families. However, dual medication is the norm among cancer patients hence it is difficult to reach clear conclusions about contribution of this regimen. Value addition, regimen simplification, health lifestyle modification, drug safety and adherence are practiced and emphasized by traditional health practitioners. The cancer patients in Kenya who use Traditional medicine are better educated, religious, more affluent and of diverse ethnicity. Traditional medicine is more popular with females with breast and cervical cases and prostate, throat and bone cancer among males. The key drivers are quest for cure, successful stories, trustworthiness and beliefs, previous experience with indigenous care and avoiding medical procedures such as surgery.

## Recommendation

The study documented professed improvement by the cancer patients after use of indigenous palliative care. This study recommends further experimental study to validate these benefits and provide grounded evidence for the adoption of indigenous herbal regimen into palliative care setting. This is projected to bolster efforts to extend life expectancy and improve quality of life for cancer patients. Strategies advocating for value addition, safety, regimen simplification and patenting, among THP are advanced. There is a need to provide adequate information to cancer patients by the practitioners on medical procedures to improve confidence and regimen ownership.

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## Supplemental material

Supplemental material for this article is available online.

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