Cancer Pain Management at Garissa County Referral Hospital, Kenya

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Abstract- High prevalence and suboptimal cancer pain management has been reported from resource-limited countries such as Kenya. Precisely, trends of cancer cases are on the increase at Garissa County in Kenya, yet no data exist on management of cancer pain. This study was to examine the prevalence, and cancer pain management of adult patients at Garisssa County Referral Hospital. A descriptive cross sectional survey was employed and 94 cancer patients from both outpatient on follow up care and inpatient were recruited to participate. MBPI (Modified Brief Pain Inventory), ECOG (Eastern Cooperative Oncology Group) and focus group discussion (FGD) were used for data collection. Pain Management Index was calculated and significant levels were set at P<0.05 for all tests. Mean age of participants was 50years, composed of 42(44.7%) male and 52 (55.3%) female. Prevalence of cancer pain was 78% with majority reporting moderate to severe pain and undertreatment with PIM of (p-value < 0.05). Participants accounting 76.9% male and 66.7% female reported cancer pain interference with ability to walk and 91% male and 70% female reported that pain interfered with their mood. Content analysis was done from focus group discussions conducted and cultural ways of pain management was also captured. A total of 81.9% (77) participants incorrectly utilized WHO analgesic ladders, 65% (61) and 77.6% (73) considered alternative therapy of Quran and Somali herbs respectively for pain management. This study found a high prevalence of cancer pain and suboptimal cancer pain management. Sociocultural perspective of cancer pain management seems acceptable.

Index Terms- prevalence, cancer pain management.

I. Introduction

Pain is the main symptom that cancer patients experience [1, 2]. Cancer pain is a subjective and a complex symptom that results from a mixed mechanism, that involves inflammatory, ischemic, and neuropathic and compression mechanisms at multiple sites[1]. It is a diverse experience for a cancer patient, modified by genetics, history, mood, expectation, and culture. Cancer pain involves not only physical pain but also psychological, social and spiritual dimensions of an individual[5, 9]. Thus cancer pain is multi-dimensional occurrence having sensory-discriminative, cognitive evaluative and emotional-motivational aspects. Literature publications of 4117 titles and 122 studies found that pain prevalence rates were 39.3% after curative treatment, 55.0% during anticancer treatment and 66.4% in advanced disease globally [15]. Moderate to severe pain (numerical rating scale score ≥5) was reported by 38.0% of all patients [14]. Despite the increased attention on assessment and management of cancer pain, moderate to severe pain continues to be a prevalent symptom in cancer patients [9, 15].Cancer pain management in African countries is suboptimal and moderate to severe pain is very common among cancer patients[9]. Prevalence of cancer pain reported ranged from 35.7% to 87.5% in many African countries and most patients reported to health facilities in the late stage cancer diagnosis due to the inadequate screening of the disease [8, 9]. Prevalence of pain and management of 400 cancer patients at Moi Referral Hospital in Kenya reported 66% of patients with undertreated pain and negative scores on the pain management index [5]. The presence of cancer pain in 520 ambulatory patients at oncology unit of national referral of Kenyatta National Hospital in Kenya was 38.5% [8]. Severe pain experience was associated with a late-stage diagnosis of cancer when most patients were also seeking medical help[8]. Studies in Kenya reveal high prevalence and poorly managed cancer pain due to limited treatment options, patients presenting in an advanced stage and limited availability and accessibility of analgesics[5, 8]. While these studies were conducted at a major national referral hospital in the urban area of Kenya, many cancer patients in rural Kenya live in remote areas and make a long journey to get access to health services[11].

Cancer pain has negative impacts that include emotional distress, clinical depression, mood disorders [3]. The most commonly occurring symptoms in cancer are the pain, emotional distress and fatigue [3, 12]. An approximately one-sixth of all cancer patients have depression and about one quarter have other mood disorders during treatment[2]. Cancer pain leads to the development of clinical depression, decrease adherence to treatment or therapy, increased suicide rates, more extended hospitalization, poor quality of life and heightened desire to die[13]. Cancer pain also interferes with the different components of patient's life and negatively affects their daily activities, mental health, family and social relationships with others and interactions at workplace. Interference of pain on functional performance had statistical significant associated with the stage of the tumour, presence of metastasis, history of treatment modality, history of pain, and pain management adequacy [10]. Cancer patients with tumour stage I and stage II with adequate treatment had less pain interference on functional performance than those with stage III and Stage IV cancers[10]. This will result to poor quality of life in cancer patients [7]. Moreover, the challenges of cancer pain management in developing countries has been well documented in several studies

[5, 8, 9] yet no studies have done in rural and marginalized area of Kenya. The purpose of this study was to establish cancer pain management from cancer patients' perceptive at Garissa County, Kenya.

II. MATERIALS AND METHODS

A descriptive cross sectional survey using MBPI (Modified Brief Pain Inventory), ECOG (Eastern Cooperative Oncology Group) for functional performance and focus group discussion was conducted at Garissa county referral Hospital. . Participants were 94 cancer patients with mean average age of 50years

Study design: A descriptive cross sectional survey of hospital based population of 94 cancer patients from both outpatient and inpatient departments of Garissa County Referral Hospital were recruited.

Study Location: the study area was Garissa County Referral Hospital with 230 beds inpatients capacity and various outpatient clinics. This hospital is situated at Garissa Township that is categorized as a marginalized area of Kenya [16], with a high number of nomadic pastoralist's population of Somali origin.

Study Duration: 18th May to 17th November 2017

Sample size: 100 cancer patients.

Sample size calculation: The study sample size was estimated from a single proportion design. The target study population was selected using purposive, simple random and snow ball sampling to achieve the desired sample of 154 cancer patients. Our confidence level was 95% and our regression coefficients revealed that effect of pan has the highest standardized Beta coefficient β (0.952) with p value < 0.05 meaning on the regression model, effect of pain was statistically significantly. The sample size actually obtained for our study was 100 patients from both inpatient and outpatient and 6 % drop out rate.

A total of 15 (5participants in each group) participants attended face to face focus group discussion of this study, comprising of 6 men and 9 females. Drafted notes and audio recordings transcription were used to capture the data for analysis. The topic of discussion was cancer pain management and we divided the subtopics in to a) patient awareness of their condition b) participants experience of pain and its intensity, c) intervention they carry out to manage their pain and d) what can be done to improve their pain control.

Subjects & selection method: The study Participants were cancer patients drawn from medical and surgical wards of the hospital, palliative clinic and those on follow up care at hospital neighborhood. Participants were patients with a pathological diagnosis of cancer, aware of their condition, mentally stable and above 18 years to provide consent for the study. Simple random sampling, purposive and snowball sampling were used to recruit participants during the study period of 18/5/2017 to 17/11/2017.

Inclusion criteria:

1) All adult cancer patients were considered included
2) Irrespective of their period of hospital stay
3) Irrespective of type of cancer, stage of cancer disease and other comorbidities present.
4) Adult cancer patients who consented
5) Adult cancer patients within hospital environment or at home on follow up plan.

Exclusion criteria:

1) All Cancer Patients under the age of 18years with mental illness were excluded
2) Critically ill cancer patients were excluded from the study.

Procedure of data collection: Each cancer patient was questioned and administered with MBPI questionnaire after signing consent to determine the presence of cancer pain, pain severity, effect and management. They were also questioned on information regarding the cancer type diagnosed, type of pain treatment or analgesics prescribed an alternative therapy to pain. Those patients who could not understand English, the researcher and the research assistant translated the questions to either Swahili or Somali language. ECOG performance status was also scored by the researcher and the research assistant as the patients verbalized his functional performance. Pain intensity was assessed from the adequacy of pain management received by individual patients. Adequacy of treatment was assessed by calculating pain management index (PMI). PMI compares the patient's pain rating against prescribed analgesics to decide if a patient's pain is adequately treated or not.

Content analysis from focus group discussions about cultural ways of managing cancer pain and their challenges in pain management was sorted out. Themes were gathered and clustered for similarities.

Statistical analysis: Questionnaires was sorted, coded and entered in SPSS version 17. Prevalence of cancer pain was calculated using each subject response on the exponential scale rate. Linear regression was used to analyse the relationship between cancer pain management and its independent and intervening variables. To analyse whether the WHO cancer pain management tool was used chi-square was utilised.

Regression analysis was conducted between variables to examine the level of relationship between pain management, pain prevalence, and effects of cancer pain. The desired level of accuracy was set to a confidence level of 95% and significant levels were set at $P<0.05$ for all tests.

III. RESULT

This study focused on respondent of cancer patients of either gender hospitalized at the GCHR with cancer-related health complications or attending the palliative clinic or on follow up at home. Demographic information of the participants was analyzed to establish the age of cancer patients and current treatment for pain to ascertain how cancer pain was managed. Table I demonstrates participants' composed of 44.7% (42) males and 55.3% (52) females. Majority 40.4% (38) of the participants were 51-65 years in age, followed by 35-50 years with 33% (31) then above 65 years were 23.4% (22) and least below 35 years with 3.2% (4). Majority of participants were female gender 55.3 %(52), with majority no formal education 44.7% (42), from ethnic Somali community 68.1 %(64) and with low income 93.6 %(88) earning less than Ksh. 23, 670 (200$) per month.

Table: 1: Demographic Analysis for Patients

[1] **Variable**	[2] **Frequency (%) n = 94**
[3] **Age**	[8]
[4] <35 Years	[9] 4 (4.3%)
[5] 35-50Years	[10] 31 (33%)
[6] 51-65 Years	[11] 38 (40.4%)
[7] >65 Years	[12] 21 (22.3%)
[13] **Mean Age (SD)**	[15] 50.6 (0.833)
[14] Min –Max	[16] 35 – 65
[17] **Gender**	[20]
[18] Male	[21] 42(44.7%)
[19] Female	[22] 52 (55.3%)
[23] **Education Level**	[28]
[24] Primary	[29] 31 (33%)
[25] Secondary	[30] 17 (18.1%)
[26] Tertiary	[31] 4 (4.3%)
[27] No formal education	[32] 42 (44.7%)
[33] **Ethnic Background**	[36]
[34] Somali	[37] 64 (68.1%)
[35] Non-Somali	[38] 30 (31.9%)
[39] **Income Level**	[43]
[40] < Ksh. 23, 670	[44] 88 (93.6%)
[41] Ksh. 23, 671 – 120, 000	[45] 4 (4.3%)
[42] > Ksh. 120, 000	[46] 2 (2.1%)

Prevalence of Cancer Pain

The majority of participants (78%) noted that their pain was due to cancer disease while (22%) reported that their pain was not due to medical procedures as shown in Figure 1 below .

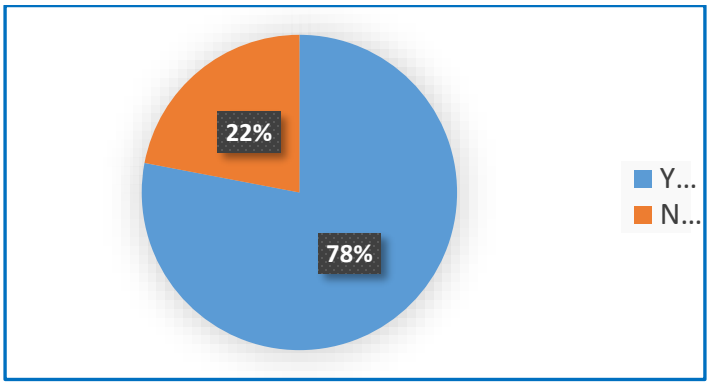

Figure 1: prevalence of cancer pain

Cancer pain management

Pain Management Index (PMI) was calculated to analyze the intensity of pain experienced by cancer patients. This is explained as a way to quantify how pain is adequately managed with pharmacological intervention, as demonstrated in Figure 2 above. The analysis of the adequacy of pharmacological pain management (PMI > 0); and inadequacy (PMI ≤ 0) was calculated using the pain management index. Pain management index is a comparison of the most potent analgesic used by patients on the worst pain. For this study, the level of pain was scored as follows: level 1 for mild pain (1-3 NRS), level 2 for moderate pain (4-6 NRS) and 3 for severe pain (7-10 NRS). The comparative level of analgesic used was graded as follows: 0 for no analgesic; 1 for non-opioids analgesic used, two was used for mild opioids, for moderate pain, while 3 for strong opioids for severe pain.

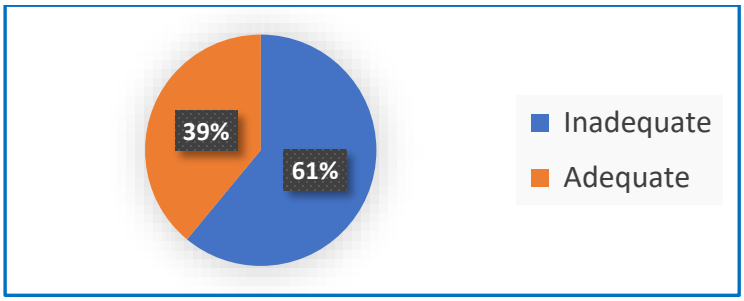

Figure 3: Adequacy of pain management.

Table 2: Pain Management Index

Pain Management Step	Index Score by Reported Pain Level			
	None (0)	Mild Pain (1)	Moderate (2)	Severe (3)
No Analgesic Prescribed (0)	0%	0%	0%	0%
Nonopioids (I)	0%	6.9%	72.4%	20.7%
Mild Opioid (II)	0%	3.3%	66.7%	30.0%
Strong Opioid	0%	35.3%	55.9%	8.8%

Participants were questioned to rate the pain at its least and worst, and the medication they used for each level of WHO analgesic ladder. The purpose of this question was to examine if patients were using the right pain medication for each pain level as prescribed by WHO analgesic ladder. The result of this study revealed that this was not the case. For instance, at the worst pain, patients are supposed to be on the strongest Opioids, that is, Morphine/hydromorphone /Methadone / Levorphanol / Fentanyl / Oxycodone &+Adjavants. However, when the participants were asked to indicate their pain management at their worst, the majority were using wrong drug level to manage pain. The findings show that (57.1%) of male participants and (73.3%)female who was experiencing severe pain, we're still using level 1 drug (Aspirin/Paracetamol/ Acetaminophen, NSAD's & Adjuvants) contrary to WHO analgesic ladder level 3 for severe pain management guidelines. Similarly, (91%) of male participants and (70%) of female participants were still using Codeine / Hydrocodone / Oxycodone / Dihydrocodeine/tramadol & Adjuvants, which are level 2 pain management drugs and not recommended for severe pain management. Only (29%) of men and (12%) of women were using the right medication for the right level of pain.

Participants were asked whether they were using an alternative treatment for pain management during the study and the following was revealed as in table 3. The study further analyzed the data collected during focus group discussion and came up with emerging themes as analyzed in table 4. Participants' own words were also considered important.

Table 3: Most Prominent alternative cancer pain management therapy

[1] **Cultural therapy**	[2] **F**	[3] **%**
[4] Quran	[5] 62	[6] 65%
[7] Somali Herbs	[8] 73	[9] 77.6%

Table 4: Focus Group analysis (Emerging Themes from Qualitative Analysis)

[1] Question posed	[2] Emerging Themes	[3] Categories
[4] Patient own cancer pain assessment	• Moderate to severe pain	• High level of pain
[5] Patient perception of their pain	• Cancer Pain has robbed of the simplest of tasks of walking and pleasure • Feeling desperation • Fatigue/sleep disturbances • The feeling of anger and mood disturbance • Pain is in control of their life • Feel they have inadequate information regarding their condition	• Pain has control over patients' life physically, socially and psychologically.
[6] Patients' perception of nursing and institutional pain control	• Found difficult to express their expectations of nursing and institutional pain management • Found difficulty to express nursing in cancer pain management competencies • Feel it is not good to always complain and report of pain, healthcare workers will see as a' bad patient.' • Feel they have less support from the nurses and other medical personnel • Feel their pain is not well controlled in the institution • Expressed inaccessibility of pain medication • Expressed the shortage of palliative care nurses at the palliative clinic (one nurse) one patient A said '' *when the one nurse is on leave from palliative clinic no hope of getting medicine or other support.* '	• Poor interaction between patients and nurse [7] • The negative attitude towards health care workers especially the nurses [8] • Poor palliative care services and inaccessible analgesic.
[9] Patients pain control methods	• Reading/ recitation of Quran (Most effective and frequently used) • Pain medication from the hospital • Use of herbal medicine such as Malmal' (comiphoramyrra) 'huruud' Turmeric, 'qorfe' (Cinnamon) 'hulbad' (Fenugreek), 'sinjibiil' (Ginger), 'filfil' (Black pepper), 'Likke/ Diinsi • Burning at the site of pain with hot metal • Heat and cold therapy massage [10]	• Social cultural practices such various traditional herbs for cancer pain management [11] • Spiritual therapy using Quran is believed as a method of cancer pain management.
[12] Challenges in pain management (patients' perspectives)	• inaccessible pain medications since the most patients were travelling from far in order to get to analgesics • Not to disturb the nurses or health workers / to be a 'good patient.' • Doctors might find it annoying to be told about the pain that persistent • Reports of pain could distract a doctor from curing the cancer • If I talk about pain, people will think I am a complainer • Limited staff in the palliative clinic • Negative attitudes among health workers	• Negative attitudes by nurses and other health workers • Poor communication between nurses and cancer patients

[13]	How to overcome challenges in pain management of cancer	• They feel the healthcare workers/nurses and institution know better • The need for more trained staff in the palliative clinic • inaccessibility of pain medication in many centres of Garissa County	• Belief health worker can solve their challenges • pain control medication is inaccessible at GCRH

Cancer paitients' who participated in FDGs were questioned on what alternative approaches they consider for cancer pain control. Some of the alternative medicine listed by the FDGs included Somali herbs such as '*Malmal*' known comiphoramyrra, *'huruud'* Turmeric, *'qorfe'* Cinnamon, *'hulbad'* Fenugreek, 'sinjibiil' Ginger, *'filfil'* Black pepper, 'Likke' (root of the tree crashed to form powder Diinsi). In responding to why they use the Quran, one of the FDG members noted as follows:

"I believe that in reading the Quran I will not only be able to manage my pain… I feel better… I believe I will be healed…I believe Quran is a miracle that was sent by Allah to be a blessing to us both spiritually and physically, and to cure us from any ailments…the words of the Quran are "Shifa" meaning they are able to heal us" (Participant 1, FGD 1)

According to the Islamic beliefs, the Quran can be used to treat all manner of ailment, including my cancer. The "Ruqyah" provides me with the opportunity to use the Quran as the word of Allah, for healing and also "duas" as the words taught by the prophet on healing" (Participant 5, FDG, 1)

In other instances, the study found that apart from relying on traditional herbal medicines, patients relied on heat and cold therapy, and in worse scenarios, some patients used hot metals:

"I have used hot metal and objects to places I was feeling severe pain…when the "Malmal" (comiphoramyrra) wasn't giving me enough relief, I would use a hot metal on my back and arms to relieve my pain…but I also know other patients who use cold therapies, where they put ice-cubes in a bag and place it on places they are feeling pain" (Participant 3, FDG 4)

When asked whether heat therapy or cold worked in the long term, they indicated this measure were short term for pain relief. In moments when pain became unbearable, they would seek medical help from the hospital

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Cancer Pain interferes with functional abilities

Patients scored their functional abilities using scale in MBPI and this was then analysed. The findings indicated the existence of an association between cancer types and its effects on walking ability, $X^2 = 6.072$, df (3); however, the association was not statistically significant (p-value > 0.05), the study also revealed the existence of a relationship between cancer and interfering with patients' mood, $X^2 = 2.167$, df (3); however, the association was not statistically significant (p-value > 0.05), and findings also indicated the existence of an association between cancer and the pain's effect on patients relationships, $X^2 = 3.869$, df (3); however, the association was not statistically significant (p-value > 0.05).

Table 4: Pain Interferes with Walking Ability

I feel my pain is due to cancer		**Pain Interference with Walking Ability**			
		Does not Affect	**Slightly Affects**	**Moderately Affects**	**Completely affects**
Male	Yes	7(33.3%)	3(60.0%)	18(85.7%)	10(76.9%)
	No	2 (66.7%)	2 (40.0%)	3 (14.3%)	3 (23.1%)
Female	Yes	1 (100.0%)	12 (80.0%)	17 (94.4%)	12 (66.7%)
	No	0 (0.0%)	3 (20.0%)	1 (5.6%)	6 (33.3%)
Chi Square Value		$X^2 = 6.072$, df (3); p value = 0.108			
I feel my pain is due to cancer		**Pain Interference with mood**			
		Does not Affect	Slightly Affects	Moderately Affects	Completely affects
Male	Yes	0 (0.0%)	12 (92.3%)	12 (66.7%)	8 (80.0%)
	No	1 (100.0%)	1 (7.7%)	6 (33.3%)	2 (20.0%)
Female	Yes	1 (100.0%)	11 (78.6%)	17 (81.0%)	13 (81.3%)
	No	0 (0.0%)	3 (21.4%)	4 (19.0%)	3 (18.8%)
Chi Square Value		X2 = 2.167, df (3); p value = 0.539			

I feel my pain is due to cancer		Pain Affects Relationship with Others			
		Does not Affect	Slightly Affects	Moderately Affects	Completely affects
Male	Yes	7 (77.8%)	9 (90.0%)	8 (88.9%)	8 (57.1%)
	No	2 (22.2%)	1 (10.0%)	1 (11.1%)	6 (23.8%)
Female	Yes	6(75.0%)	9 (90.0%)	6 (85.7%)	21 (77.8%)
	No	2 (25.0%)	1 (10.0%)	1 (14.3%)	6 (22.2%)
Chi Square Value		$X^2 = 6.072$, df (3); p value = 0.108			

ECOG performance status

ECOG is a scale used by oncologist and researchers to assess how a patient's disease is progressing, and how it has interfered with patients' daily activities. For this study, (99%) indicated they take daily pain drugs and study sorted to assess their ECOG performance status. For instance, ECOG score of 0(a patient is fully active, and carries his/her duties without hindrance); a score of 1 means (restriction in patience physical strenuous activities, but can carry light house work); score of 2 means (patient is ambulatory and not able to carry any work activities); a score of 3 means (patient has limited self-care and refined to bed) and a score of 4 means patient is (completely disabled, and cannot carry on any self-care). This study revealed that 78 %(32) had experienced ECOG status 3. The findings also show that in all cancer categories, female were less likely to experience cancer pain as compared to the male participants (OR=0.67). However the experience is not statistically significant (p-value > 0.05). Those whose ECOG status slightly affecting were more likely to experience cancer pain compared to those whose ECOG status are affected (OR=1.125). The patients experiencing ECOG pain level 3 had a statistically significant pain threshold level (P value <0.05).

ECOG status of participants

Variable	Cancer Pain		OR (95% CI)	P-value
	Yes	No		
Sex				
Male	31 (73.81%)	11 (26.19%)	1.00 (Ref)	
Female	42 (80.77%)	10 (19.23%)	0.67 (0.25 – 1.78)	0.422
Daily Pain	93 (98.9%)	1 (1.1%)	-	-
Medication in 7 Days	93 (98.9%)	1 (1.1%)	-	-
ECOG Status				
0	0 (0%)	0 (0%)		
1	29 (78.38%)	8 (21.62%)	1.00 (Ref)	
2	12 (75%)	4 (25%)	2.483 (1.82 – 3.66)	0.000
3	32 (78.04%)	9(21.96%)	3.421 (1.25-3.78)	0.002

Regression of Variables

To establish the level of relationship between pain management, and effects of cancer pain a regression analysis between variables was done. The result shows an adjusted R-value of (0.898), which means, (89.8%) of the variability of pain management, interference of pain and cancer pain prevalence. The Analysis of Variance (ANOVA) was also carried out to examine if there is significant variance in the means between pain management, interference of cancer pain, and pain prevalence, $F_{(2, 91)} = 4.622$; (p-value < 0.05) which means the mean difference between the variables was statistically significant. .Regression coefficients revealed that the effect of pain has the highest standardized Beta coefficient β (0.952); p-value < 0.05 which means on the regression model, the effect of pain was statistically significant. The Beta coefficient β (-0.009) for pain prevalence was not statistically significant.

IV. DISCUSSION

This study revealed that there was a relationship between cancer pain prevalence and cancer pain management. There cancer pain also interferes with normal functioning. Pain management is a dependent variable while the prevalence of pain and the effect of pain are independent variables. We found a high prevalence of cancer pain at (78%) with the majority of patients experiencing moderate to severe pain. This is similar to [5, 8] studies of Kenya, though the prevalence of pain tends to be higher in this study. This is because our study was carried in a rural, marginalized area of Kenya with the high number of population practicing nomadic lifestyle.

This study revealed poor and incorrect utilization of WHO analgesic ladder for pain management by many participants. Inadequate cancer pain management was also reported by 61% (57) participants with (PMI ≤ 0). It was also found that wrong level of WHO analgesic ladder was used to manage the wrong level of pain intensity. That is (57.1%) of male participants and (73.3%) female who were experiencing severe pain and still utilized level 1 drug (Aspirin/Paracetamol/ Acetaminophen, NSAD's & Adjuvants) instead of level 3 with strong opioids (Morphine/hydromorphone /Methadone / Levorphanol / Fentanyl / Oxycodone &+Adjavants). This result is similar to [5] with 66% of patients undertreated for pain and had negative scores. Our study also found that many participants were using alternative cultural approach for pain management. A total of 65% and 77.6% used the Quran and Somali herbs respectively. This is similar to [12] that revealed Islamic healing practices continued to be accepted by

many cancer patients despite the advances in the modern treatment of cancer pain.

The findings in this study indicated that there is an association between cancer pain and interference with walking ability at (p-value > 0.05) and majority (76.9%) of male participants and (66.7%) female participants have been affected. We also found that there is a relationship between cancer pain and mood interference with patients at (p-value > 0.05) and so as pain's effect on patient's relationships with others at (p-value > 0.05). Therefore cancer pain has a negative impact because it affects the patient's physical activity, mood and relationship with others [6, 7].

The finding in this study is similar [14]who found that cancer patients do sometimes rely on more than forty-seven medicinal plants and traditional healers, particularly in Somali and Ethiopia for the treatment. Garissa being predominantly occupied by Somali community, this explains why patients under this study resorted to various types of herbs. On the use of herbal medicine as had been established by the findings of this study, World Health Organization (2008) study had earlier documented that there is a 70%-80% use of complementary and alternative medicine (CAM) among the public of many developed countries. Somalis believed that Allah gives someone the burden of pain so one should not express or verbalize the pain[17] and most of our patients could easily express their pain.

V. CONCLUSION

Management of cancer pain is suboptimal in Kenya. Our study found a high prevalence and an adverse effect of cancer pain leading to poor quality of life of cancer patients at Garissa County Referral Hospital. The study also found that most patients rely more on alternative therapy and sociocultural perspective pain management. Therefore, there is a need for acceptable strategy and understanding alternative therapy for cancer pain management at GCRH. We recommend more studies in cultural perspective for pain management and knowledge and skills of healthcare workers in cancer pain management

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Nil

Conflict of interest
There is no conflict of interest

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