Clinicians’ Perspective on Factors Affecting Pain Management among Patients with Terminal Illness Admitted at Longisa County Referral Hospital, Kenya.

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Abstract
The study sought to explore clinicians’ perspective on factors affecting pain management on terminally ill patients admitted at Longisa County Referral Hospital in southern part of Rift Valley region in Kenya. Factors that facilitate pain management are: use of WHO guidelines, education of clinicians on pain management and incorporating pain assessment as the fifth vital sign. Conversely, barriers leading to under treatment of pain include: lack of knowledge on pain management, lack of pain assessment tools/guidelines, misconceptions of narcotics among clinicians, lack of essential medicines, understaffing, patients and family beliefs of pain, inconsistent supply of opioids and restrictive regulation of opioids. This was an exploratory qualitative study in which in-depth interviews were conducted with clinicians who were purposively sampled to include those who worked in areas with palliative care patients until thematic saturation was achieved. Data was analyzed through thematic content analysis and presented in form of narrative. The study revealed that clinician do not treat pain adequately. Additionally, significant knowledge deficiencies exist regarding current principles of pain management practices and presence of beliefs that interfere with optimal care. Significant knowledge deficiencies are evident regarding currently accepted principles of pain management practices, as well as beliefs and lack of essential drugs including opioids which hinders pain management therefore clinicians must be educated continuously especially with ongoing educational sessions with a focus on knowledge of current pain management principles.

Key Terms: Pain, Palliative care, Clinician, Terminally ill, Assessment.

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1.0 INTRODUCTION

Pain remains a major health care problem, even though there are World Health Organization (WHO) guidelines and recommendations on its management. Pain affects a patient physically, emotionally, socially and spiritually and therefore needs holistic approach to manage. Terminally ill patients agonize with pain in the course of illness leading to poor quality of life. One of the primary duties of clinicians is to reduce pain and suffering, however, this is poorly fulfilled duty. Consequently, patients experience uncontrolled pain.

WHO has identified that globally up to six million people die annually of cancer with little access to pain management (Miller, 2012). The London declaration of cancer control in Africa (2007) states that African countries will account for over a million cancer cases per year. 88% to 89% presenting at end stage of the diseases where pain has been identified by patients and relatives as the most common symptom among these terminally ill patients with cancer. In Kenya it is estimated that the annual incidence of cancer is about 28,000 cases and the annual mortality to be over 22,000 (National cancer control strategy 2013, Kenya).

A study done by Huang et al (2013) in western Kenya revealed that hospitalized patients have inadequate pain control. Pain is one of the frequent and serious symptoms experienced by patients with terminal illnesses, 80 % of the patients with AIDS or cancer and 67% of patients with cardiovascular disease or obstructive pulmonary disease will experience moderate to severe pain at the end of their lives. According to a study by Huijer et al (2012) 75% of patients with terminal illnesses experience severe pain and are not informed about importance of pain management. In Kenya there are 39,000 new cases of cancer each year of which 80% are diagnosed in the advanced stages whereby the leading symptom is pain. (Kenya Ministry of Health, 2013). This finding acknowledges that Kenya, like other Sub-Saharan African countries is still faced with the enormous burden of the HIV/AIDS pandemic as well as that of cancer. At Longisa County Referral Hospital 75% of patients with terminal illnesses report uncontrolled pain (Longisa Hospital Statistics, 2018).

Globally, 70% of patients experience severe pain according to global summit (2005), Latchman, (2014), and Lohman et al (2010). Despite WHO (2007) and Kenyan ministry of health (2013), emphasis on utilization of pain management guidelines, and that every individual has a right to pain management irrespective of stage of the diseases; inadequate pain management is still reported widely. Uncontrolled pain can affect every aspect of life causing suffering, interference with sleep, reduced physical and social activity and appetite as asserted by Argoiff (2007). According to a study done in western Kenya it is posited that 80.5% of hospitalized patients experienced pain, while 30% of patients reported moderate to severe pain (Huang et al, 2013). Owing to the fact that patients with terminal illness present to health facilities some degree of pain this implies that pain control remains the cornerstone of palliative care, among other important symptom according to Livingstone (2003) and Merriman and Harding (2010). Evidently, pain management among terminally ill patient is still challenging and remains a continuous task.

Regardless of the widespread acceptance of a highly effective therapeutic strategy for pain management, studies have shown that half of the patients in routine practice settings do not get their pain managed adequately (Bonica et al 1990; Coyle et al 1998; Portenoy et al 1992, and Tegegn et al 2007), and therefore leads to poor quality of life. A WHO study found that people who live with chronic pain are likely to exhibit signs of depression or anxiety (Argoff, 2007; Deimling, Bowan & Wagner, 2007 and Lohman et al., 2010). They also established that cancer survivors who report more pain have difficulties attending to their daily
activities of life and in addition, the patients reported that their pain caused psychosocial distress; namely anxiety and depression. On the same ground pain not only affects individual patient, but also his/her family, the community and the society as a whole, of which WHO (2007) Reports that early identification and careful assessment and treatment of pain are vital for improving quality of life. At Longisa County Referral Hospital, average number of patients with terminal illnesses is ten per month and I have observed that 75% come to our palliative care unit with uncontrolled pain and the reasons are not known. This study therefore seeks to explore clinician’s perspective on pain management among patients with terminal illness admitted at Longisa County Referral Hospital, Kenya.

2.0 LITERATURE REVIEW
Factors that facilitate pain management:
Incorporating pain assessment as the fifth vital sign has been emphasized as one of the ways to enhance identification and management of pain with resultant improvement in quality of life among terminally ill patients (WHO, 2007). Having pain assessment as the fifth vital sign during patient encounter attracts clinicians’ attention therefore, hastening prompt management of pain (Malaysian MOH, 2008 and Morone & Weiner, 2013). Additionally, Fink et al (2010) elaborates that successful relieve of pain and suffering relies on ongoing mandatory pain assessment as this is essential before planning interventions. Use of WHO guidelines on pain management guide health clinicians on pain management particularly using opioids. It also clarifies to policy makers in government and health institution when opioid analgesics are needed for treatment of moderate and severe (WHO 2007). This is supported by the study by Grond et al (1991) on the efficacy of WHO guidelines for cancer pain relief on cancer patients which showed that use of these guidelines relieved pain totally for 52% of patients and 24% experience mild to moderate pain.

Education of both staff and patients on pain management has been postulated by McGarvey (2005) that it is significant for pain management. This is reinforced by Jin (2015) in the study done to evaluate knowledge and attitude of nurses and doctors at Kenyatta National Hospital revealed that education is crucial to improving knowledge on pain management. Furthermore, it been accentuated that improving medical education in pain management is essential as it fosters competence, compassion and improved pain management practices among health care worker across all levels (Logan, 2006; Machira, Karuiki, & Martindale, 2013 and Murison et al 2013). Good communication between health care providers and patients promote adherence to pain management practices. Therefore, clinicians should use communication skills that are nonjudgmental and allow open exploration of patients’ attitudes and beliefs regarding pain (Batow & Sharpe, 2013; Clarke & Iphofen, 2008; Fink et al. 2010; Maria, Frantsve & Kerns, 2007 and McGarvey 2005).

Barriers to pain management
Lack of knowledge on pain management among clinicians has been identified as one of the obstacle that deters optimum pain management as portrayed by a study done by Jin (2015) which found that 83% of the participants exhibited knowledge deficit on pain management. This is further reinforced by Paice (2010) and Tegegn & Gebreyohannes, (2017) who maintained that inadequate knowledge on pain management affects pain management practices. Although pain has been widely researched, there is still knowledge deficit on the basic
principle of pain management that hinders clinicians’ ability to adequately manage pain, leading to inadequate treatment and poor quality of life as demonstrate by earlier studies over the past two decades (Ferrell et al., 1993; Lasch et al., 2002; McMillan et al., 2000; Plaisance & Logan, 2006 and Rushton et al., 2003).

Failure to do pain assessment, poor pain assessment and lack of using pain assessment tools that by health care workers leads to poor pain management. This is demonstrated by healthcare providers who do not always accept patients’ self-report of pain unless it is accompanied by other signs of pain like grimacing (Ferrell, 1995 and Logan 2013). According to a study done in Ethiopia, Tegegn and Gebreyohannes (2017) asserted that achieving effective analgesic strategy for pain control relies on thorough clinical assessment including a detailed history of the pain complain, patterns and intensity. According to Boyle (2007, WHO (2002), and WHO (2007)) it is declared that pain is mostly left untreated or undermanaged which is attributed to impeccable assessment of pain.

Restrictive regulation of opioids as is the case in Kenya where prescription of opioids is limited to doctors only (KEHPCA 2013) hampers pain management, since there is shortage of doctors and the fact that there is need to provide care for patients with terminal illnesses settings where there are no doctors assigned such as in homes, Communities, Dispensaries and Health Centres. Additionally, special licensing is required for procurement, distribution and sale of opioids, and can only be sold to institutions that have a doctor, thus many institutions shy away from these complexities. According to studies by Lohman et al (2010) and McDarby, Evans and Kiernam (2017) evidence revealed that restrictive drug control regulations and practices act as barrier to pain management because it causes fear among health care providers on prescription and dispensing of opioid which are categorized as controlled drugs.

Unavailability of opioids impedes pain management as inferred in the study by WHO (2004) in Geneva which revealed that 80 % cancer patients have no access to opiates such as morphine. KEHPCA (2013) further indorses that there is scanty availability of opioids as a result of absence of policies to ensure their availability. According to studies done by Joranson (2007),, Tegegn and Gebrehyohannes (2017) and McDarby, Evans, and Kiernam (2017), it is affirmed that inconsistent availability of pain medications like opioids, which are the mainstay of pain relief, are mostly inaccessible and this is considered as one of the barriers to pain management. This implies that patients with moderate to severe pain are often under-treated in both developing and developed countries.

Clinicians, patients and family perceptions, misconceptions and beliefs about pain hamper optimum pain management for terminally ill patients. This is revealed by studies by Fennell et al (2000) and Miller (2012) which emphasized that Clinicians fail to prescribe and administer morphine because of fear of addiction and misuse. Reportedly, family members, care givers and patients contribute to the interference with pain management and this is attributed to concerns regarding disabling side effects of opioids such as confusion and drowsiness (Jacobsen et al 2009 and Logan 2013).

3.0 METHODOLOGY
A cross-sectional qualitative study was done in order to explore clinicians’ perspective on factors affecting pain management among patients with terminal illness. This method was adopted as the most appropriate because it involves in-depth exploration of people experiences, what their views are as well as providing interpretation and
understanding regarding new area where issues are not yet understood (Creswell, 2007; Hancock Ockleford & Windridge, 2009 and Snape & Spencer, 2003).

Setting and Participants
The study was conducted at Longisa County Referral Hospital in Bomet County, Kenya. This is a level four hospital, which during the time of conducting the study, it had admitted 120 patients with terminal illnesses in a span of one year and majority had advanced cancer. Sampling of the participants were purposive which targeted 3 doctors, 5 clinical officers, and 7 nurses, of the total 26 doctors, 17 clinical officers, and 75 nurses because they were rich in information and they are considered key people in the management of pain. Recruitment continued until thematic saturation was reached (Coyne 1997; Lincoln & Gube, 2000; Miles & Huberman 1994; Patton 1990 and Stake, 2000). Data collection was done using 15-25 minutes' interview guide with semi-structured questions based on the themes of the literature review. The interview guide was piloted at Sigor Sub County Hospital in Bomet County to check whether it carried the intended aim (Newton, 2018). Data was analyzed using the five stages of data analysis in the framework approach as illustrated by Pope, Ziebland and Mays (2000) while results were presented in a form of a text narrative as explained by Ellis and Standing (2013).

4.0 RESULTS AND DISCUSSION
This study explored clinicians’ perspectives on factors affecting pain management among terminally ill patients at Longisa County Referral Hospital. The following themes were identified: education on pain management, WHO guidelines, good communication, Lack of knowledge on pain management among clinicians, lack of pain assessment tools/guidelines to assess pain, restrictive regulation of opioids, inconsistent supply of opioids, clinician misconception about opioids, patients and family beliefs of pain, lack of essential drugs and understaffing. These themes are discussed below of which some of them were similar to those in literature and others emerged from this study

Themes consistent with findings from previous studies.

**Education on pain management:** Some of the clinicians’ interviewed who had undergone a two week course on palliative care specified that training offered during the short course improved their skills and competence on pain management. Other doctors linked their knowledge and skills on pain management to the education they received from medical school.

“We had an extensive course on pain management in college and this has helped us in pain management” (Doctor 8).

“The two week course by KEHPCA team on introduction to palliative care was very educative which really equipped me on pain management”.... (Clinical officer 4).

**WHO guidelines:** Clinicians reported that guidelines were useful in pain management of which some of them cited WHO guidelines as very important references in their practice. These include guidelines on the use opioids,
an example is the WHO analgesic ladder and also guidelines to the health institution on how to avail morphine hence pain management is improved. (WHO 2007).

“Depending on the severity of pain…. I normally refer to WHO analgesic ladder while prescribing analgesics for the patients” (clinical officer 4).

**Good communication:** The study showed that most of subjects cited good communication as one of the most important tools in pain management since history taking was one of the leading ways of pain assessment in the hospital.

“For those patients who can communicate well about their pain, then their pain is managed well, because as a clinician, you will understand their pain experience and be able rate the pain” … (clinical officer 4). “I normally ask the patient or relatives to find if there is pain....” (Nurse 2).

**Lack of knowledge on pain management among clinicians:** This study showed that clinicians are deficient in the knowledge of dosages and analgesic duration while majority lack knowledge regarding currently accepted principles of pain management practices. Some believed cancer pain cannot be controlled and others thought some people in pain may be seeking attention.

“Cancer patients do not respond to pain treatment especially those with bone metastasis (Clinical officer 11)

“... some patients seek attention too much, exaggerating their pain” (Nurse10)

When interviewed further he said after eight hourly doses of morphine and no positive response then patient is referred to another Hospital for further management.

“I normally refer them to Tenwek hospital for further management... Pain management is sometimes challenging…” (Clinical officer 14).

Those clinicians who had undergone short course on palliative care had better knowledge and positive attitude on pain assessment and pain management. Physicians had more knowledge on pain management as compared to other cadre of staff and all the nurses interviewed demonstrated significant lack of knowledge while clinical officers had better knowledge on pain management as they are prescribing medicines for patients all the time in their practice. The majority of nurses do not have any training on pain management except what they received in college.

“I have no training on pain management and feel inadequate managing pain therefore the hospital should consider training us to be able to manage pain.” (Nurse 9).
Lack of pain assessment tools/guidelines to assess pain: Clinicians acknowledged that pain assessment was sporadic at best. Formal pain assessment tools were not available in the clinical areas for use, though it was also mentioned that it is time consuming.

“But again, it is very hard to determine the intensity of that pain, because we don’t have things like assessment tools... we don’t have them in the ward...” (Nurse 9).

We don’t have protocols... we don’t have criteria of assessing pain and ... how to manage pain.” (Nurse 10).

The majority of clinicians relied on outward physiological signs and behavior to signal when they should assess the patient for pain. The study revealed that inadequate pain assessment is the leading barrier to pain management while recognition of pain should start at pre-diagnosis and its assessment should include a detailed history and physical examination with the use of validated pain assessment tools.

Clinicians’ misconceptions about opioids: Majority of the clinicians interviewed admitted having fear over using opioids as a result of perceived side effects. Participants perceive that opioids cause side-effects like respiratory depression and drowsiness.

“I just think you have to be very careful, considering the side-effects like respiratory depression. So I think if it’s extremely necessary then go ahead....” (doctor8).

“The general feeling is usually fear to use opioids.” (Clinical officer12).

“One of the ...side effects... that we fear the most is respiratory distress.” (Nurse 2).

Most of the clinicians prescribe commonly available non-opioid drugs or mild opioid drugs for severe pain which includes paracetamol, diclofenac, ibuprofen, and tramadol.

I prescribe paracetamol for mild pain..., but for moderate to severe pain, I do prescribe stronger drugs like diclofenac, ibuprofen, or tramadol. (Clinical officer 12).

Inconsistent supply of opioids: Another barrier was the inconsistent supply of opioids, which some of the participants who had palliative care knowledge referred to as a challenge to pain control at hospital which forced them to refer patients experiencing uncontrolled pain to a near-by facility for pain control.

“Morphine is out of stock most the time....” (Clinical officer 3).

“I don’t prescribe morphine often because it is rarely in stock at this hospital. I prescribe diclofenac or tramadol for moderate to severe pain” ... (Clinical officer 4).
Clinicians’ perceptions on patients and family beliefs of pain: The study also revealed that patients and their relatives act as barrier to pain management. Some clinicians explained that patients and relatives fear side effects of opioid drugs like drowsiness and constipation therefore bear with intense pain. They also view pain as inevitable occurrence during sickness.

“Patients and families know that Pain is always part of the disease process therefore bear with pain as something inevitable during sickness…. They sometimes fear site effects especially drowsiness” …. (Clinical officer 2).

Emerging themes from the study.
Lack of essential drugs: Some participants reported that lack of essential drugs which includes laxatives, antiemetic, non-steroidal anti-inflammatory, antihistamines and others as hindrance to pain management. Clinicians raised concerns about side effects of opioids like constipation.

“But when you prescribe morphine to patients, they do come back with constipation and others with vomiting, therefore I do not want to add them more problems.” (Clinical officer 12).

Lack of space for terminally ill patients: Participants who are attending palliative care patients mentioned that terminally ill patients and especially those who are in pain are scattered all over the hospital.

We don’t have a specific place for palliative care services, our patients are in casualty, Medical, surgical/gynecological, paedtriatic ward or even continuous care clinic…. (Clinical officer 4).

Under staffing: Majority of the participants cited under staffing as hindrance to pain management, as the ratio of staff to patient is not proportional. “There is only one nurse in the ward and before you finished dispensing at last patient the first is already complaining of pain and you are alone in the ward,” so if…… (nurse10)

“I think also the… staff is stretched, so even trying to give the medication on time… is not one of the priorities, because there’s too much to be done.” (Doctor 8).

Discussion of the findings.
The purpose of the study was to explore clinicians’ perspective on factors affecting pain management among terminally ill patients. This study revealed that availability of pain assessment tools, pain assessment, and use of WHO guidelines lead to improvement of pain management which was similar to the studies done by Grond et al (1991) who studied the efficacy of WHO guidelines and found that with use of these guidelines pain management improved. It was noted that good communication is one of the most important tools in pain management which is also revealed in the studies done by Batow and Sharpe (2013, Fink et al (2010), Maria, Frantsve and Kerns (2007) and McGarvey (2005).
The most notable barrier to pain management that was cited by the majority was lack of knowledge on pain management which was also similar to the findings of Tegegn and Gebreyohannes, (2017), Paice (2010) that inadequate knowledge on pain management and poor assessment of affects its management.

WHO guidelines were also cited by some of the participants as very important which was similar to the findings of Grond et al (1991) that the use of WHO guidelines led to improved pain management at the end of life. The study further found out that education is very important in improving pain management which was reflected in the study done by Miller (2012) in Florida that educating new hospice nurses improved their knowledge on pain management hence improved pain management.

Regarding the use of opioids in pain management, this study showed that clinicians have misconception about side effects and addiction which demonstrate that pharmacological pain management is poorly understood by the clinicians. Although most of the clinicians do not prescribe or dispense opioids because of fear of addiction which is the most common misconception which was also found by Fennell et al (2000) and Miller (2012). However, Hojested and Sjogren (2007) in their study established that the prevalence of addiction in cancer patient with pain to be 0%-0.7% which is a small percentage and further affirmed that patients who had little or no concerns about addiction and tolerance had lower pain scores.

Other reasons for under treatment of pain in the hospital include the frequent and prolonged drug deficits of pain medications including opioids and pain medicines not being given as prescribed due to staff shortages. Addressing these barriers will require solutions to be explored at several levels of health care delivery systems.

5.0 CONCLUSIONS AND RECOMMENDATIONS
This study was to evaluate clinician’s perspective on factors affecting pain management for terminally ill patients admitted at Longisa County Referral Hospital. The study established that good communication, education on pain management, and use pain assessment tools and WHO guidelines enhances pain management practices among clinicians, and therefore they should be strengthened. Evidently, lack of knowledge on pain management among clinicians, lack of pain assessment tools and guidelines to assess pain, clinicians’ misconceptions about opioids, inconsistent supply of opioids, patients and family beliefs of pain, lack of essential drugs, and understaffing hinders pain management.

Recommendations emanating from the study include: In-service training, short-term intensive courses and continuing education with focus on knowledge of current pain management principles and guidelines and encouraging and supporting specialization in palliative care courses for clinicians in order to improve their knowledge, skills and attitudes regarding pain management. There is need to relook at the staffing establishment levels in health facilities in order to improve staff-patient ratio. It is also recommended that national and county government should ensure that hospitals have essential medicines at affordable prices and clarify laws surrounding the use of opioids and make sure that basic human rights are observed of which one these is right to avoid unnecessary suffering and pain. Further research is still required to find out the institutional practices that hinder pain management.
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