Opioid Prescriber Related Barriers to Pain Management in Palliative Care

Jostine Ndunge Mutinda*

ABSTRACT

Aim: Establishing opioid prescriber-related barriers to pain management in palliative care.

Introduction: Millions of people suffering from Non-communicable diseases e.g. cancer live and die with severe pain and other debilitating symptoms, which can be effectively treated and managed at affordable cost. Unfortunately, they typically lack access to medication, appropriate technology and palliative care services. Satisfactory pain management is an essential component of palliative care both in the healthcare setting and in home based care. Palliative care emphasizes on pain and symptom management in life-limiting disease management. Unfortunately, many barriers interfere with the pain and symptom management process. Barriers could be patient or healthcare related. Though nurses do not prescribe opioid analgesics they play, a pivotal role in pain management using the medication hence delay of prescription does affect nursing care.

Methodology: A cross sectional study was conducted in Embu and Machakos level five hospitals and the hospices targeting 238 nurses working in these institutions. These facilities are located in the Eastern region of Kenya. Systematic Random Sampling was done to identify participants and the data collected by use of questionnaires, exported using Epidata 3.1, cleaned and coded; then analyzed using Stata version 14. Hypothesis testing was done by use of Chi – squared Test with 95% Confidence Interval. Presentation was done using tables and charts.

Results: The prescriber-related barriers to pain management by use of opioids included: Delayed prescription, failure to prescribe the medication, shortage of prescribers and inadequate pain assessment.

Conclusion and recommendation: Previous studies had identified some of the barriers in other countries. Many barriers interfere with the pain and symptom management process, frustrating efforts to assess and control the said symptoms. Unlike other analgesics, opioids require prescription for them to be dispensed hence prescribers are key to pain management by use of this class of drugs.

Most of the barriers identified in the study could be addressed by the Government through investing in employment of prescribers, continued professional development as well as change in legislation.

Keywords
Life limiting illness, Impeccable pain assessment, Opioid analgesics, Barriers.

Introduction
Non- communicable diseases (NCDs) are of long duration and generally have slow progression. They can also be described as life-limiting conditions. The four main types of non- communicable diseases have been reported as cardiovascular diseases, cancers, chronic respiratory diseases and diabetes. NCDs kill 38 million people each year with almost three quarters (28 million) of the deaths occurring in low- and middle-income countries [1].

Other life limiting conditions include musculoskeletal disorders. Musculoskeletal conditions, which cause chronic pain, are prevalent and their impact is enormous. The conditions are the
most common cause of severe chronic pain and physical disability, affecting millions of people around the world. They include a spectrum of conditions, from those of acute onset and short duration to lifelong disorders, including osteoarthritis, rheumatoid arthritis, osteoporosis, and low back pain [2].

Satisfactory pain management is an essential component of palliative care both in the healthcare setting and in home based care. Palliative care emphasizes on pain and symptom management in life-limiting disease management. Unfortunately, many barriers interfere with the pain and symptom management process. Barriers could be patient or healthcare related e.g. Knowledge or attitude regarding pain management [3].

Palliative care aims at improving quality of life for people who have serious or life-threatening illnesses. It affirms life hence regarding dying as a normal process; it neither hastens nor postpones death. The end goal is to preserve the best possible quality of life until death i.e. adding life to the days of the patients as opposed to adding days to their life. The goal of palliative care is not to cure but to prevent or treat, as early as possible, the clinical manifestations and side effects of the disease and its treatment, in addition to the related psychological, social, and spiritual problems. Palliative care is not offered as a replacement to primary medical treatment instead it is provided to complement the other forms of treatment [4].

Inadequately managed pain can lead to adverse physical and psychological patient outcomes for individual patients and their families. Of particular importance to nursing care, unrelieved pain reduces patient mobility, resulting in complications such as deep vein thrombosis, pulmonary embolus, and pneumonia. It can also increase blood pressure, heart rate and negatively affect healing. When a patient is in constant pain it affects performance of other nursing procedures owing to poor cooperation by the patient as well as the nurses’ relentless focus on relieve of distress. It is unfortunate that Health care puts emphasis on acute care and care of chronically ill patients with stable conditions but patients with progressive illness are generally a neglected group [5,6].

Legal restrictions to opioids availability and access have caused people with life-limiting conditions (e.g. cancer and AIDS patients) to suffer unnecessary pain. The fear of prosecution for handling classified drugs has caused some Doctors to decline to prescribe morphine for relief of patients’ pain. The same fears have led to some pharmacies and drug stores not to stock the opioid drugs. In Kenya drug laws prohibit the prescription of morphine by other health care workers except physicians who may not be available in most of the health facilities [7,8].

Apart from Opioid analgesics being classified as controlled drugs in Kenya the fact that opioid analgesics are only prescribed by doctors further limits their accessibility. Further, in case where the Doctor is not available changing the dosage when needed, may not be possible. Another problem would arise if the patient reacts to the medication since the nurse lacks adequate guidelines to manage the administration of the medication and in most cases they are forced to stop the treatment. This poses a challenge in pain management resulting in unnecessary suffering to the patient [9].

The problem has further been compounded by conflicting legislation, which governs the use of opioids. The Pharmacy and Poisons Act CAP 244 stipulates a broad mandate for the regulation of medicines. The Narcotic Drugs and Psychotropic Substances Control Act (Cap 245) makes provision for the control and possession of, and trafficking in narcotic drugs and psychotropic substances while the Food, Drugs and Chemical Substances Act (Cap 254) provides for the prevention of adulteration of food, drugs and chemical substances [8,10,11]. The three laws have overlapping and conflicting provisions. For example some controlled drugs under Cap 245 also have licit (medicinal) uses, yet the heavy penalties associated with handling of illicit drugs deter most pharmacists from stocking any of them, and this limits access for needy patients for instance in palliative care.

Most national laws controlling “illegal” drugs are based on the UN Single Convention on Narcotic Drugs (1961) and the Convention on Psychotropic Substances (1971) that define a range of substances that are supposedly sufficiently harmful to be removed from the usual sales regulations. They are made “illegal,” which means that punishments are implemented for sale and, in most cases, possession. However, many “illegal” drugs have medicinal uses: for example, opioids for pain, amphetamines for narcolepsy and attention deficit [12].

**Aim of the study**
The research aimed at establishing the barriers encountered by nurses while managing pain using opioid analgesics in palliative care.

**Statement of the problem**
Despite the increased availability of strong opioid analgesics in most parts of sub- Saharan Africa pain resulting from advanced illnesses such as cancer, remains under- treated. This could be partially attributed to failure to prescribe the medication due to stringent restrictions among other factors. Inadequate pain management affects nursing care in that uncontrolled pain through delayed prescription of failure to prescribe opioids causes patients to live in agony. Most patients requiring opioid use are assessed by nurses who recommend for stronger analgesics hence they a pivotal role in pain management among patients with life-limiting illnesses.

It with a background that the researcher sought to establish prescriber related barriers to pain management by use of opioid analgesics.

**Justification of the study**
By establishing the barriers to pain management, the researcher would be able to make recommendations to policy makers to...
devise ways of overcoming the barriers. It was envisaged that overcoming the barriers would empower the prescribers and other healthcare providers especially nurses, to prescribe and administer opioid analgesics respectively in a safe environment in order to improve pain management in life limiting illnesses.

The research findings would also be utilized in advocating for a policy formulation as well as change of legislation to regulate the administration of opioid analgesics in palliative care.

Materials and Methods
The study was conducted in Embu and Machakos level five hospitals and the hospices in these two counties, which are located in Kenya. The study targeted 238 nurses working in these institutions. The reason for choosing the two counties was that previous studies had shown a high prevalence of Cancer in the Eastern region of Kenya. This showed an increased need for palliative care services. The high number of cancer cases was attributed to use of maize, which contained high levels of aflatoxins owing to prolonged drought spells in the region [13].

Permission to conduct the study was sought from Jomo Kenyatta University research and ethics Committee and from National Commission for Science, Technology and Innovation. Permission to access participants was sought from the Ministries of Health in the respective counties. Confidentiality was assured and participants were required to sign informed consent.

A cross sectional study design was utilized to establish the barriers to pain management as perceived by the nurses in the course caring for patients in need of palliative care. Explorative study design was also adopted to scrutinize the legal imperatives regulating prescription of opioids.

Solvin formula was used to determine the sample size and systematic random sampling adopted to select the participants. The data was collected by use of questionnaires. The data was exported using Epidata 3.1, cleaned and coded then exported for analysis. We of Stata version 14 did data analysis. Presentation was done by use of tables and charts.

Results
The demographic characteristics of the participants showed that most of them were females i.e. 153 (65%) while males were 82 (35%) as shown in figure 1; the educational level varied from certificate to degree level (Table 1) with work experience ranging from 0 to over 20 years. The respondents reported some barriers, which were related to the prescription of the opioid analgesics. This included withholding prescription of opioids 61 (26%) respondents, avoiding prescription 46 (20%) and conflicting decision to prescribe the analgesics 83 (35%) respondents; inadequate patient assessment 136 (58%) respondents as well as shortage of prescribers 97 (41%) respondents as shown in figure 2.

Discussion
The gender disparity is in line with the tradition of the profession whereby nursing was a female dominated profession. Similar findings were reported in a study conducted in the United States in 2017 by National Council of State Boards of Nursing (NCSBN) which showed that males formed only 9.1% of the nursing workforce in the US though the trend was changing rapidly [14].
Majority of the nurses (participants) i.e. 123 (51.6%) had been educated up to diploma level of whom 26 (10.9%) of them had acquired a training at higher diploma level. This could be explained by the fact that most nurse training institutions in Kenya offer diploma courses. 86 (36%) were degree holders while 8 (3.4%) were certificate holders. The findings compares with those of a report by the Ministry of Health (Kenya Nursing Workforce Report) which revealed that majority of the public sector nursing workforce trained at the diploma level (52.5%) and 1.1% at the degree level [15].

Despite the fact that opioid analgesics use is integral to cancer pain management prescribers still display incorrect beliefs that affect their prescription to those in need. These included delays in prescription of the drugs with a notion that painkillers should be withheld until the cause of pain is established. This was reported by 61 (26%) respondents; failing to prescribe opioids completely due to a false belief that the risks posed by use of the medication outweigh the benefits, which was reported by 46 (20%) respondents. These findings are similar to those reported in a study conducted in Bangladesh in 2014 in which physicians prominently showed inadequate knowledge regarding opioid pharmacology such as choice of a potent drug, frequency and the appropriate route of administration [16].

Other prescriber related barriers included underestimation of pain intensity due to inadequate patient assessment where the prescriber believed that one could tell a patient in pain just by looking at him/her and that some patients concealed their level of pain. This was reported by more than half 136 (58%) of the respondents.

A study conducted by Ulster Medical Society in 2013 reported similar findings where inadequate assessment of pain was noted to cause a barrier to pain management [17].

McCaffery defined pain as what the experiencing person says it is, existing whenever he says it does [16]. This indicates that the patient's self-report is the most reliable indicator of the presence and severity of pain. However, a challenge is usually encountered when one is required to assess non-verbal patients such as infants, the cognitively impaired, critically ill or comatose and some patients reaching the end of their life. In these cases the traditional pain measurement tools are often difficult to employ hence the need for alternative approaches. Availability of clear guidelines may provide a solution to this problem.

Shortage of prescribers was another barrier reported by 97 respondents. This was because in Kenya Doctors only prescribed opioid analgesics. Considering that in Kenya the Doctor – population ratio as at 2017 was 1:16000 which was way below the WHO recommendation of 1:1,000 further denied patient accessibility to the medication [18].

However, this was contrary to findings of an earlier study conducted in Uganda whereby a commendable success in pain management by use of opioids had been shown since 1994. This was facilitated by change of legislation to allow nurses and clinical officers who undergo special training in palliative medicine at Hospice of Uganda to prescribe morphine. This had led to increased number of prescribers and had allowed palliative care to spread throughout all the Districts ensuring that morphine is available to everyone in need [19].

Conflicting decision to commence patients on opioid analgesics was also reported by 83 (35%) respondents. This could be due to the stringent rules imposed by the regulators and especially the legislative imperatives for controlling pharmaceutical products. For instance while Pharmacy and Poisons Act Cap 244, laws of Kenya is mandated to control trade in drugs and poisons, the Narcotic drugs and psychotropic substances Act Cap 245, Laws of Kenya section 3(1) prohibits handling of narcotic drugs. This conflicting legislation can scare some pharmacies from stocking opioid drugs hence denying the access of the medication to needy patients [8,10,11].

A report by NEJM Catalysts in 2018 revealed a similar concern over the national opioid epidemic that had resulted in a crackdown on physician prescribing abilities. Many frontline physicians and clinical leaders were in a dilemma acknowledging the national crisis of opioid addiction and wanting to adhere to the new restrictions but also wanting to decrease patients’ pain [20].

**Conclusion**

In conclusion, satisfactory pain management is an essential component of palliative care both in the hospital and in home based care settings. Unfortunately, many barriers interfere with the pain and symptom management process, frustrating efforts to assess and control the said symptoms as revealed in this study.

Owing to this fact, patients are still hurting because of the stringent rules governing the prescription and use of opioids in pain management among other barriers. Despite the limitations of this study, I believe that the study findings represent the current state of pain management by use of opioids in Kenya.

**Recommendations**

To address the prescriber related barriers it would be imperative for the Kenya Government to change legislation with an aim of easing the stringent rules and restrictions on opioid prescription. Changing the legislation for instance to allow nurses who have undergone specialized training in palliative care to prescribe opioids may address the challenge posed by shortage of prescribers.

To allow easy access of the medication the Narcotic drugs and psychotropic substances control Act cap 245, laws of Kenya section 3 should be amended to allow more healthcare personnel to handle/prescribe the narcotics for medicinal use.

**References**

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