

Pain management in medical wards: A single centre experience in Nigeria

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Abstract

Background: Pain is the commonest reason for hospital presentation worldwide. Its prevalence, distribution and severity are similar across different wards. However, the management of pain in medical wards is sub-optimal. The study was aimed at the determination of patients' perception of adequacy of pain management in medical wards.

Methods: A cross sectional hospital based study of patients admitted into the medical wards of Federal Medical Centre, Makurdi over a two year period using a validated questionnaire purposively administered to consecutive patients who had diagnoses with pain as a major component (e.g. Sickle Cell Crisis, Painful Neuropathies) to capture socio - demographic and clinical parameters, diagnoses and analgesics (type, dose, escalation frequency).

Results: There were 1,986 patients made up of 1,019 females and 967 males with mean age 53±18 years. Up to 31.1% were in

their seventh decade with majority (59.3%) living in urban areas. Respondents were admitted with various painful conditions (e.g. neuropathies from diabetes and chronic kidney diseases constitute 42%). They were on appropriate analgesics at rather low doses or one off doses. Up to 62% had used bioceuticals. Majority (95.2%) of respondents felt that pain management in the medical wards was inadequate.

Conclusion: Most (95.2%) patients felt pain management while they were on admission was not adequate. Analgesia was based on patient's complaint and the judgment of the physician.

Key Words: Pain, analgesics, medical wards, bioceuticals.

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Introduction

The primary goal of medicine is to preserve and restore health and to relieve suffering. Because pain is universally understood as a signal of disease, it is the most common symptom that bring patients to physician's attention. Therefore, it is imperative that the physician provides rapid and effective pain relief.¹

It is generally believed that the distribution of pain was similar among different wards in a hospital.^{2,3} Some researchers have also noted that this similarity was not just in prevalence among different wards but also in severity.^{3,4}

In many countries, pain assessment and management is not formally taught in most medical schools.⁵ The tools for measurement of pain are often not utilised in many medical centres especially in the emergencies and wards of hospitals where these protocols should be evidently displayed.⁶ This has translated to absence of pain assessment documentation in the case notes of many patients who need pain relief

with its attendant consequence of inadequate pain control.⁶

There is a dearth of acute pain management teams in many countries in Africa and other parts of the world. Where acute pain management teams exist, effort is often concentrated on Oncology/Palliative care/Hospices arms of the hospital, post – operative patients and the chronic pain clinic.^{3,7} These, among other reasons may be responsible for the widely held notion that pain management in medical wards is sub-optimal.^{3,4,6}

This study aimed at the determination of the subjective perception of patients to adequacy of pain management and control in the medical wards.

Methods

Ethical approval was obtained from the institution's board for this cross sectional hospital based study of patients admitted into the medical wards of Federal Medical Centre, Makurdi North-Central Nigeria over a two year period (January 1, 2016 to December 31, 2017). Consent was obtained from all individuals who agreed to participate in the study. The content of the consent form was explained to individuals in the language they best understood. Consenting adults were required to sign the forms or append their thumb print appropriately. Questionnaire content validation was done in conjunction with an anaesthetist and administered purposively by managing team doctors who could speak the local language or through interpreters. The questionnaires were administered to 2,166 consecutive patients with painful neuropathies (from medical

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conditions like Diabetes Mellitus, Chronic Kidney Diseases, post herpetic neuralgia), arthritides and malignant conditions (e.g. Kaposi Sarcoma, Lymphoma, Leukaemia, Multiple Myeloma, Hepatoma or malignant transformation of Chronic Liver Disease, diffuse Carcinoid, Disseminated malignancies of any type) as well as Sickle Cell Crisis to capture their socio-demographic and clinical parameters, diagnoses, analgesics (type, dose, escalation frequency) at the point of discharge. Patients had various analgesics in the course of admission for conditions deemed to be painful and for complaints of pain.

The data generated was subjected to simple descriptive statistical analyses using the Statistical Package for Social Sciences (SPSS, IBM version 23.0; SPSS Inc., Chicago, IL, USA). Frequencies and percentages were computed for categorical variables while continuous variables were presented as mean and standard deviation. Consensus on an item was deemed present if at least 50% of the respondents either agreed or disagreed with the item, otherwise there was no consensus on that item. The degree of pain was not assessed. The adequacy of pain management and control were assessed using a modified 5 point Likert questionnaire. Responses were recorded as adequate, somewhat adequate, undecided, somewhat inadequate and inadequate.

Results

Two thousand, nine hundred and seventy one (2,971) patients were admitted into the medical wards within this period. Two thousand, one hundred and sixty six (2,166) patients had painful conditions that warranted administration of the questionnaire. The questionnaire of 180 respondents were not properly filled and were excluded. The study therefore utilised 1,986 participants, translating to a response rate of 91.7%. There were 1,019 females and 967 males (gender ratio of 1.1:1) with a mean age of 59 ± 8 years and a range of 26 – 88 years. The highest representation was from patients in the seventh decade. Other aspects of socio – demographic parameters are shown in Table 1.

The spectrum of diagnoses that respondents had was depicted in table 1. Neuropathies from different diseases made up the largest group (42%) followed by arthritides (24%) while malignancies constitute 25%. Majority of respondents (69.8%) had Paracetamol alone or in combination with other analgesics. Up to 66.3% used morphine in the course of their admission. As many as 62.7% of respondents were using bioceuticals (mostly nutraceuticals) which were not prescribed by their managing doctors.

Table 1: Socio-demographic parameters of participants

Parameter	Frequency	Percentage
Females	1,019	51.3
Age range (years)		
20 - 29	12	2.0
30-39	7	8.1
40 - 49	11	12.4
50 - 59	21	24.2
60 - 69	19	31.1
70- 79	13	15.1
80 - 89	3	7.1
Residence		
Rural	932	46.9
Urban	1054	53.1
Educational Level		
None / primary	785	39.5
secondary	496	25.0
tertiary	705	35.5
Occupation		
farmers/self employed	727	36.6
civil/public servant	785	39.5
Students	455	22.9
Unemployed(including retired)	19	1.0
Diagnoses		
Neuropathies	834	42
Athritides	477	24
Sickle Cell Crisis	179	9
Hepatoma/Malignant transformation of Chronic Liver Disease	159	8
Kaposi Sarcoma	139	7
Lymphoma	79	4
Leukaemia	79	4
Multiple Myeloma	20	1
Carcinoid (Diffuse)	20	1
Analgesics		
Paracetamol	60	69.8
Diclofenac	47	54.6
Opioids		
Morphine	57	66.3
Tramadol	31	36.0
Dihydrocodeine	19	22.1
Anti-convulsants		
Carbamazepine	36	41.9
Pregabalin	28	32.6
Others		
Tricyclic antidepressants	6	7.0
Bioceuticals (e.g. Cellgevity, Chinese tea, etc)	54	62.7

Perception of Adequacy of Pain Control.

Up to 1,890 (95.2%) felt that the pain they had while on admission in the medical wards was not adequately controlled. An additional 66 (3.3%) stated that the control of pain was somewhat inadequate. While 21 (1.1%) were undecided, 7 (0.4%) felt pain control was

somewhat adequate and 2 (0.1%) felt that the control was adequate.

Discussion

The diseases that qualified for recruitment in this study could be generally divided into two categories: medical malignancies (of which Hepatoma and Kaposi sarcoma were the largest groups) and a second group that were currently incurable (sickle cell disease crisis, arthritides and neuropathies arising from various causes such as type 2 diabetes mellitus, chronic renal diseases, etc). Pain is a very common accompaniment of these disorders.¹

Most of the patients were on drugs to control pain or discomfort. The commonest drug used was Paracetamol. This may be because Paracetamol was readily available, affordable and highly tolerable (with minimal side effects) globally. A sizeable proportion (66.3%) of respondents were on opioids especially morphine at one point or the other in the course of their illness. There were clear cases of use of minimal doses of opioids for only brief periods (especially statim doses) with failure to escalate the dose. Rather, there was an addition of a second drug which was invariably a non steroidal analgesic. Opioids were also used as an add-on drug. This may be because of fear of dependence. Physical dependence and tolerance may occur in patients who take opioids over a long period, but psychological dependence is extremely rare. Therefore, the risk of dependence should not be a factor in deciding whether or not to administer opioids to a patient in pain.⁸ Morphine was observed to be the commonest opioid used in this health facility. Morphine, given in increasing amounts, is safe and should be administered until the pain is relieved without producing an "overdose," as long as the side effects are tolerated. It is widely believed that Morphine has no standard dose, especially when used in advanced malignancies. The ideal dose is the one that relieves the patient's pain.⁸ This has been generalised to include other non malignant conditions that are painful.⁹ Indeed, the relief of pain in all conditions using appropriate drugs is a primary responsibility of healthcare providers.¹²

A worrisome trend was the use of bioceutical products (also variously called nutraceuticals, complementary and alternative drugs) not prescribed by anyone in the managing team. In this study, more than 62% of respondents had used or were still using this treatment modality. A study from southern Nigeria on the use of complementary and alternative medicine by cancer patients at a university teaching hospital, observed that 65% of individual that were on treatment for malignancy had used complementary, alternative or traditional methods of treatment at some time during their current illness.¹⁰ They also observed that age, marital status, level of education, religious affiliation or

socioeconomic status were not important determinants of who used or will use complementary modalities. Majority of patients (55.8%) did not mention their use of these methods of treatment to their doctors.¹⁰ It is thought that the desire to use complementary or alternative treatment is more in areas in which conventional methods have not provided satisfactory solutions to diseases and ailments, such as in HIV infection and cancer. Therefore, the need to use complementary and alternative medicines and methods is also fuelled by the quest for therapies considered more congruent to the patient's values, beliefs and philosophical orientation towards health and life.¹⁰ The use of traditional remedies have been known to influence patient presentation and follow-up visits after an initial treatment at a hospital. This is because of the expectation many of these patients have about unorthodox modalities being able to cure their illness.⁷

Majority of respondents (95.2%) felt pain management while they were in medical wards was not adequate. This is similar to others studies from different parts of the world.^{3,4,6,7,11} This inadequacy is more glaring in the medical wards^{3,4}. Although pain is similar in prevalence and severity in medical and surgical wards, its assessment and management in non-surgical patients often receives less attention and resources.⁴ Better pain assessment, re-assessment, documentation and patient satisfaction were observed in the surgical wards compared to medical wards.⁶

Up to 82.2% of respondents felt that pain management on medical wards was inadequate in one series.⁴ In another study, 62.1% of patients neither received analgesics nor was their assessment of pain/management documented. Pain was not measured using scales or ratings at all.¹² This is a common observation in institutions that did not have a standardised pain assessment and management protocol. The institution in which this study was undertaken, just like many other institutions in this country, lacked formal pain assessment and management protocol. Every unit managed the patients' need for analgesia based primarily on the complaints of the patient and on the perception and judgement of the attending physician. However, it is good to know that this observation was at variance with what obtains in ambience where institutional measures including patient controlled analgesia was practised.¹² This latter group noted that 82.2% of patients were satisfied with their pain management, 11.1% were somewhat satisfied and only 6.7% of their enrolled patient base were dissatisfied with their pain management.¹² This was at variance with our observation that only 0.1% agreed that their analgesia was adequate.

This study had some limitations. This was a single centre study. Other factors may be operational at other

centres that will make generalisation of findings from this study inappropriate. This study assessed patients' subjective perception of adequacy of pain management without assessing the degree of pain. Also, socio-cultural factors that modulate expression of pain were not assessed.

Nearly all the respondents in this study felt the pain management while they were in medical wards was not adequate. Every unit managed the patients' need for analgesia based primarily on the complaints of the patient and on the perception and judgment of the attending physician. It is important that a formal pain assessment and management protocol be instituted in all healthcare centres to prevent unnecessary suffering in the medical arm of hospitals. There is still need to engage healthcare providers with a view to educating them on the need to use adequate analgesia on the one hand and opioid use in deserving cases on the other hand.

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