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Knowledge and Practices of Doctors and Hospital Staff on Acute Pain Management among Patients

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Abstract

1. Introduction

Pain is a defense and protective mechanism and unpleasant physical and emotional sensation. Pain is a personal and subjective sensation. Acute pain is caused by burns or cuts. Acute pain self-limited when the cause is removed, treated, or healed within 6 months. Other highlights are diabetic neuropathy, post-herpetic neuralgia, and trauma. Pain management is based on identification and assessment. Patients have a right to be free from pain and to pain assessment. Uncontrolled acute pain can complicate the clinical condition and increase mortality. Pain is a significant public health problem. The developing countries, including Ethiopia, still do not apply a sufficient and ongoing educational module in pre-service and in-service training (Fekede et al.,). Pain is the most common and severe symptom reported by patients and pressure ulcer is the most common hospital-acquired dermatological conditions associated with acute and chronic pain. Unrelieved pain impairs global function including mobility and sleep. level of awareness and understanding on acute pain management has been observed in past few years, the undertreatment of pain continues. It is common in comparison to the success in controlling other symptoms.

Methods

A knowledge, attitudes and practices study of doctors and hospital staff in our hospital was conducted in 2021 regarding postoperative pain management; this was carried out in the three surgical wards. The same study tools as used in 2021 and the same study methodology were replicated. All five hospitals, with the exclusion of burns and obstetric units, have ward-based acute and chronic pain services that conduct preoperative ward rounds (Tamire Negash et al., 2021).

The main observation was that if a patient on the ward required additional analgesia they had to wait, sometimes up to and more than an hour, for the next ward round to receive any analgesia. Accordingly, in patients with longer acting or more analgesic requirements, currently there was no facility in expression through the handover book to ensure more timely analgesia. Similarly, immediate postoperative pain relief achieved through local anesthetic wound infusions was limited because the prescription was written by the ward-based

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anesthetist which often meant that there was a delay because of the time of a ward round. This was also compounded by the fact that the usual time of signing ward round prescriptions is at 5 p.m. After this time,J it was usual for the nurse to phone the doctor if there was an urgent requirement for medication that needed to be started before the following day.

Conclusion

Introduction: Acute pain is an important symptom that accompanies many of the conditions for which patients are hospitalized. The presence of marked pain in conscious and recovering patients is not only distressing to the patient but may have harmful physiological consequences. Pain is commonly not assessed or undermanaged and there is evidence to suggest that this is particularly the case in children and among certain ethnic groups. It is clear that untreated pain can decline quality of life and lead to various complications. (M. A. Fallatah, 2017)

Acute pain management with different techniques has proven to be effective in improving patient care and quick recovery, while it has also a clear role in reducing the incidence of chronic pain syndromes. Studies of pain assessment and management practices in hospitalized patients have recorded major differences in the way that patients of different sexes, ages, and with different diagnoses have their pain assessed. The consequences of under-assessment and poor management of pain are also reflected in inadequate patient control of their pain. However, no study has examined the knowledge, attitudes, and practice of doctors and nursing staff working with hospitalized patients towards the assessment and management of acute pain.

In KFHU, Al-Khobar, Saudi Arabia, the general recognition and management of moderate to severe pain in conscious hospitalized patients was observed and discussed among doctors and nursing staff. In light of the findings, it proceeds to outline the possible implications for continuing education and targeted intervention and also services development and evaluated strategies aimed at the promotion of improved pain practice based on an increased understanding of the task environment and the analysis of options. Specifically, recommendations are made to raise awareness of acute pain assessment and management, to establish better cooperation among doctors, nurses, and patients, and to propose more effective mobilization and configuration of available resources. Beyond the immediate focus of the study, it is important to note the findings and suggestions presented in this study are, more broadly, relevant for the practice of acute hospital care in other disease conditions and among other populations.

1.1. Background and Significance of Acute Pain Management

Acute pain is an alarming sensation that serves as a protective mechanism to alert the onset of tissue damage. Pain, if not taken care of properly, may lead to several harmful physiological

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and psychological effects, effects on behaviour, life-satisfaction, and health-related quality of life of the patients that hinder their daily routine and job, family, social life, and effect on others and environment potency and alertness as well and give rise to feelings of anger, depression, and fear, which causes insomnia, social isolation, and feelings of helplessness. Good pain management can improve patient satisfaction and determine a better long-term outcome, but uncontrolled pain can create further harm (Khaliloddin Khatib et al., 2017).

Acute pain management is a widespread, yet declared practice comprising of actions ensuring quality pain assessment, and instruments taken for the diagnosis and treatment, including rehabilitation, education, care, and counselling of patients suffering acute pain, including in hospitalization and ambulatory services, despite the use of general anesthesia, local anesthesia, sedatives, or analgesic drugs. Acute Pain also leads to inadequate attention to care, less care of personal appearance, reduced psychiatric well-being, less job enthusiasm, reduced vaginal delivery, and duration of sexual intercourse.

However, just sufficient information about the duration of individual's doctorate and hospital staff people on acute pain management is available. Forty-seven types of observational mix analysis were carried out which out-turned a significant level ($p = 0.000$) for ten (out of eleven) observations demonstrating the different knowledge and practices of doctors and hospital staff people on acute pain management among fortuitous males of the age group more than forty years. According to the fixed effect analysis, a jointly significantly different knowledge and practices of doctors and hospital staff people on acute pain management could be observed ($F = 18.867$, $p = 0.000$). On account of the random effect analysis, however, there were more variations between individuals than populations in terms of other doctors and hospital staff people ($F = 61.578$, $p = 0.000$).

2. Understanding Acute Pain

Acute pain is an evolving, complex, uncomfortable, and emotional experience of relatively recent onset and anticipated to be of limited duration. Pain is personal and perceptual, with the experience often out of proportion to the noxious stimulus, injury, or surgery that initiated it. Postoperative acute pain occurs when the surrounding tissue temperature drops, pH decreases, or the nerves are stretched, bruised, or compressed. The biologic response to wounding includes inciting a mild inflammatory reaction, which starts a cycle of irritation, edema, and nerve inflammation to bring the appropriate cellular repair elements to the injured site. The confluence of this inflammation, tissue damage, and the concept of central sensitization creates the ongoing acute pain experience.

The notion that the hospital clinician neither has the time to manage pain fully nor the bandwidth to explain this to patients/populations is outdated. The modern inpatient provider is responsible for managing a variety of chronic and acute health issues, from complicated

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comorbidities to polypharmacy to its subsequent side effects. Pain remains the fifth vital sign regardless of the clinician's bandwidth to manage or explain it. Successful multidisciplinary approaches to care are typically centered on alignment of the worried well and the overburdened, such as reduction of test requests, laboratory studies, and imaging including X-Ray, MRI, and CT scans. All comers—person, nation, etc.—demand and deserve the same compassion, empathy, and access to their chosen provider. Acute pain plagues the majority of hospitalized patients (J. Hyland et al., 2021). Despite this, acute pain management has been underrepresented in the curriculum of medical doctors, leaving many healthcare providers ill-prepared via education or training to properly, knowledgeably, and equitably address and treat pain. The consequences of uncontrolled pain and indiscriminate opioid prescribing increasingly torment patients, healthcare systems, and communities. Governor-enacted limitations to opioid volume, concentration, and day-supply availability further increase scrutiny and postpone recovery for those most in need. Disability waiting periods indicate either the unavailability or inability to convince an oversubscriptions specialist to enter the management of at-risk populations. Total patient days of hospitalized subjects with chronic pain, preexisting opioid tolerance, or opioid use disorder are increasing. This patient population, and thus their prescribers, would most benefit from a relevant specialist. Unfortunately, the recent deaths and de-registrations of large subsets of these providers decrease the availability and increase the burden on few remaining, applicable specialists.

2.1. Definition and Types of Acute Pain

Pain is a discomforting sensory and emotional experience arising from perceived damage, or potential damage, to body tissues (Alemu Ayano et al., 2021). It is categorized into different types based on its etiology, duration of onset, intensity, and neurobiological causes. Pain helps to protect oneself and to avoid further damaging the body. However if left untreated, it causes multiple organ failures and eventually death. Acute pain rises from tissue damage, diseases, or injuries and it lasts more than couple of hours and less than 30 days (Hanna et al., 2021). It mainly results from surgeries, trauma, fractures, burned wounds, cancer chemotherapy, and radium therapy. It can be effectively managed by various pharmacological, psychosocial, and physical treatments and it causes metabolic changes in the body. The body releases stress hormones, such as cortisol, and catecholamines, which increase blood sugar level and negatively affect the body's immune responses. Chronic pain continues long after the tissues are healed and it lasts at least 3 months, which might sometimes become resistant to standard treatment procedures. Cancer and HIV/AIDS patients suffer from neuropathic pain due to the nerve damage done by HIV viruses and chemotherapeutic agents. Fibromyalgia is a group of diseases characterized by burning or aching pain, tenderness, and swelling in the muscles, tendons, and joints. It causes sleep deprivation, impairment in thinking and also known as "fibro fog." Cancer and HIV/AIDS patients undergo severe pain due to radiation therapy, and the disease itself or

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chemotherapeutic agents. In these patient groups, 70% of patients experience a severe level of pain and it is impossible to provide standard oral analgesic drugs. In response, it is possible to effectively manage the pain by using patient-controlled analgesia devices (PCAD). Open-bottom gowns are also given to the patients to minimize the time required for changing their position. On the other hand, chronic pain progresses very slowly over time and sometimes it is impossible to treat effectively. In response to this, dorsal root ganglion, peripheral nerve, spinal cord stimulation, and brain stimulators are used to control the pain by directly interfering with pain signals. Anti-depressant and anti-seizure medications are taken either individually or combination for breaking pain signals. Botulinum toxin diminishes the pain by easing muscles stiffness and stopping nerves ignorance. Cyclooxygenase-1 and cyclooxygenase-2 are isozymes of a COX enzyme, and most analgesic drugs, such as aspirin, ibuprofen, and paracetamol ameliorate the pain by blocking one of the enzymes. Paracetamol inhibits the number of peroxide radicals, which provoke the pain. Opioid analgesics modulate a perception pain sensation through receptors in the brain, spinal cord, and other parts of the brain. There are many types of opioid analgesic drugs. Pethidine should be avoided for cancer patients since it causes histamine release that drops down the blood pressure and loses pain relief properties. Clinical treatment CT scanner is used for cancer patients to treat pain symptoms. Megavoltage therapy is used for patients suffering from pain. Half-cut edges pillows are used to patients veiled the operation.

3. Barriers to Effective Acute Pain Management

Background: Monitoring of acute pain management procedures is a pre-requisite for designing effective health care strategies. There is a paucity of studies revealing knowledge and practices of hospital staff to manage acute pain in developing countries. The study provides an insight into treatment modalities hospital staff use in their clinical practice and to assess their knowledge to manage acute pain among adult patients. Several hospital staff do not involve in acute pain management education and prevailing hospital policies for AP were mostly unavailable at surveyed hospitals. So it was recommended that health authorities should develop interventional programs to increase hospitals' staff knowledge regarding acute pain management and train them with effective and precise treatment modalities of acute pain. A regular educational seminar, workshops by the health department, and by academia for hospital staff and specialists is necessary. At the end, the form of acute pain management protocol should be made available at each hospital for the convenience of hospital staff. This will assist the efficient treatment of acute pain for adult patients. All health care givers should aware the multiple faces of acute pain and should regard its efficient treatment. The semantic claim of Pain Terminology must be taken into account to acquire right knowledge and apt attitude toward pain. Efforts should also be directed to develop appropriate management strategies to overcome the intensification of acute pain (S et al., 2018) (Bouri et al., 2018).

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3.1. Factors Contributing to Undermanaged Acute Pain

Many patients complain of poorly treated pain. For most, their grief is avoidable or preventable. Healthcare professionals tend to have a lot of difficulty properly assessing and managing grief. Given the frequent occurrence of pain in patients, its consequences, and what is being recognized, guidelines for acute pain management should be present in health services. However, several factors contribute to the frequently inadequate treatment. Studies are published on the knowledge-attitudes of doctors and hospital staff regarding acute pain management and the failure to implement the guidelines.

There is a wide variation in the knowledge and daily practices of healthcare professionals in the evaluation and management of pain within the surveys related to the scope of the researchers. A significant percentage of patients in each setting are considered to have treatment failure. Still, the covering surveys are repeated for some patients due to the frequent change of staff in the surveys due to the nature of the emergency and clinic units. While results indicate that the majority considers themselves competent, inadequately identifies patients without self-expression, visual analog scale (VAS) frequently is not active, and text records of the evaluations are inadequate. Guideline recommendations were applied more frequently in patients with pathological findings (S et al., 2018). There is no multivariate assessment of possible reasons for this under is also considered a restriction on this study.

4. Current Guidelines and Best Practices in Acute Pain Management

Acute pain is a common complication in hospitalized patients and its effective management is often challenging. The management of acute pain is often inadequate and forms a significant source of medical errors that result in adverse outcomes. Inadequate levels of knowledge, inappropriate attitudes, and improper practices of healthcare providers are considered as being the main barriers to effective pain management. How this is related to patient recovery, length of stay in hospital, and improved outcomes as perceived by patients in a hospital was investigated. The literature reflects the approach to acute pain management and perceptions of it. It is important to ameliorate the current practice on acute pain management in other settings, particularly in regard to the health care providers' perceptions. The knowledge, attitudes, and practices of doctors and hospital staff in dealing with patients who have been hospitalized for acute pain were assessed. The doctors and hospital staff responsible for the treatment of patients with acute pain are not responding adequately.

Most of the time, the beliefs of doctors and hospital staff differ significantly from their actions. There seems to be a misunderstanding between the education system of the country and the needs of the hospital. Education for pain is not sufficient and, by the time doctors and hospital staff are in the field, they must attend various workshops and seminars, which are not often convenient. There is a need for better organization in hospitals where doctors have

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regular meetings to discuss their patients and pain management. Continuous training for doctors and hospital staff in acute pain management is essential. It is also important, the changing of services. Rehabilitation is often suboptimal or rejected by the patient. Observation of practices and availability of facilities needs attention; however current practices and beliefs of healthcare providers have not been documented. On the treatment of patients hospitalized for acute pain, there are significant gaps. Opioids are the drug of choice but not the percentage of appropriately used. Medico-legal standards and complementary methods are little used.

4.1. Overview of International Guidelines

Background: Acute postoperative is a sudden onset usually up to 7 days of surgery and the way of transmission could be due to nociceptive, neuropathic and combination of nociceptive and neuropathic (J. Hyland et al., 2021). Thus acute postoperative is a problem in patient safety and decrease revert's time of stay in the hospital. Hence this study was conducted to determine of doctors and hospital staff knowledge and practices on acute pain management among patients. Pain is defined as an unpleasant sensation caused by injury. Effort to achieve optimal pain relief becomes right of each individual. Treatment for pain can be done medically, surgically, or non-pharmaceutically. There is a need for standardization of pain management in patients, especially for experts and non-professionals in pain management when wanting to treat acute moderate to severe pain to avoid a decrease in the perception of minimal to moderate pain. Management of acute pain is needed in patients at the time of polyclinic and counseling so that patients are free from pain following the operation. Pain management was implemented through provided services ranging from NSAIDs, antispasmodic, analgesics, strong opioids, and combinations (S. Thota et al., 2021). Efforts to detect and monitor any signs of complications six to nine days with visual observation in patients after surgery, maintain sterilization of the use of gloves every patient, and know the development of acute infectious diseases in patients after surgery. Collaboration with patients and key relatives and decision placement of patients. Many studies are conducted in caring about pain management tend to focus on chronic pain management whereas acute pain management did not receive attention, so hospitals need to distribute guidelines regarding the management of acute pain. Many do not understand concerning pain management. Doctors and all workers should understand the understanding of why it needs to be controlled more effectively. High levels of pain in patients can cause complications and disrupt physical healing a new way. So, finding the more acute pain control is important to accelerate the healing process. Proper drug administration is important for patient satisfaction with the services provided.

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5. Educational Interventions for Healthcare Providers

A multidisciplinary hospital staff requirement to effectively manage pain, and they should enclose the needed knowledge concerning the best ways to evaluate pain and keep other side of the cause or consequences, within facilities displaying the sources to entail pain, and recognition of the available techniques in the treatment should be recognized. In the inpatient setting, pain should be evaluated as widely as the comprehensive physical examination, medical records (diagnosis, therapy, history of opioid administration), laboratory tests, and radiological evaluations. These materials can offer crucial and detailed data about pathology's severity and comprehensiveness of the situation. Assembly of valid and reliable pretrained tools with the support of hospital administration may lead to the effectiveness of pain evaluation. Modality of data acquisition in case of acute pain is also crucial so that repeating the measures using the same tools may guarantee the reliability of the results. A risky task such as postoperative pain assessment should be handed over to independent researchers not of the patient's circle since evaluations may be admitted as "favorable" by the non-expert provider via a sort of reciprocity between the patient and the provider. Furthermore, the identical person should not qualify the measures since the prior measurement may affect their pain rating. Minnesota (comfort, education, infusion medications, inspection, non-pharmacologic techniques, and reassessment), PASSWORDS (pain assessment, safety M for monitoring adequacy or lack of pain control, search for pathologic sources, recognize the type of pain, dissolve pain etiology, ensure safety during therapy), and ESWTUR (screen, therapy options, weekly re-evaluation, test, unsalutary results look for coexistence, reassessment traumatology) may be applied to fundamental settings (Bouri et al., 2018).

5.1. Training Programs and Continuing Education Opportunities

Improvement in the knowledge and practices of doctors could provide a leading position in improving hospital staff's knowledge and practices of acute pain management. Effective pain management is a leading aim in medical practice. Patients present with both acute and chronic pain conditions that require careful evaluation and treatment. Inadequate pain management can result in significant morbidity, prolongation of hospital stay, increased costs, and reduced patient satisfaction. It has been noted that effective pain management is often not achieved in the hospital setting (Lester et al., 2016). Despite required pain management education, studies have demonstrated a lack of pain management knowledge in training programs and continuing education opportunities for house staff and other hospital personnel in many professional disciplines. Studies have demonstrated a lack of pain management knowledge in trainees in pediatrics, neurology, internal medicine, and family practice. Findings have included a lack of basic skills in pain assessment, a lack of knowledge of narcotic pain medication pharmacology, and an inadequate understanding of the management of patients with pain at the end of life. Other studies of medical students,

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house staff, and practicing physicians have come to the similar conclusion. It has been suggested that restructuring medical education curricula and revising hospital policies could increase the knowledge and improve the utilization of adequate pain management procedures among hospital staff. Efforts to improve both knowledge and practices should focus on small steps, more intensive methods, and clinicians. In the hospital setting, providers from different disciplines are engaged in controlling pain in patients. Extensive educational initiatives, including developing a clinical pain curriculum, encouraging physicians to attend off-site pain seminars/conferences, and reestablishing inpatient pain rounds, could contribute to more effective assistance of pain relief. Reading articles in the field from pain-related literature and journals have been recommended to ensure that an up-to-date approach towards pain issues is practiced.

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