

# **IDENTIFICATION OF THE INSTITUTIONAL FACTORS THAT INFLUENCE PAIN VALUATION FOR SEVERELY SICK PATIENTS AMONG NURSES AT SELECTED HOSPITALS IN KIAMBU COUNTY KENYA.**

## **Abstract**

The incidence of pain is projected to vary between 47% and 100%, posing a significant challenge across all ages, races, genders, diverse economic backgrounds, and geographical locations. Inadequate pain assessment may delay numbness management and lead to heightened anguish, anxiety, and nervousness, potentially exacerbating pain. Nurses bear both professional and ethical responsibilities to ensure effective pain relief for their patients. Achieving optimal pain relief relies on nurses' understanding of pain, systematic and consistent assessment, and documentation of pain. The primary aim of this study is to identifying institutional factors influencing pain assessment, and understanding nurses' factors affecting pain assessment. This research utilized a descriptive research design focusing on 168 nurses working in selected hospitals in Kiambu County, Kenya. The census technique was employed to select participants, and a five-point Likert scale questionnaire was administered. Data were analyzed using Statistical Package for the Social Sciences (SPSS) Version 22, with descriptive statistics, standard deviation, mean, percentages, tabulations, and frequencies. Findings revealed that selected hospitals in Kiambu County employ various pain assessment tools for critically ill patients, with the most common being the behavioral pain assessment tool, followed by the critical-care pain observational tool and nonverbal pain assessment tool. Institutional factors such as pain evaluation procedures, internal communication channels, staffing levels, availability of equipment, teamwork, supervision, work regulations, and hospital environment significantly influenced pain assessment. Furthermore, nurses' demographic factors including experience and personal encounters with pain influenced pain assessment practices. Statistical analysis demonstrated a significant relationship between pain assessment tools and outcomes, emphasizing the importance of tool selection for effective pain management. The study concludes that the type of tools, institutional factors, and nurses' characteristics influence the assessment and management of chronic pain among critically ill patients in Kiambu County. To ensure balanced tool utilization, the County Health Department should implement capacity-building programs for nurses, while hospital management should prioritize staffing, ethical nursing practices, equipment provision, work culture, and safety. Given the influence of personal factors on pain assessment practices, the study recommends incorporating pain management education into initial and ongoing training for all healthcare practitioners.

## **1.0 Introduction**

### **1.1 Background to the Study**

Pain is a global dynamic that is experienced by humans at any given moment during the lifespan. The (Korwisi et al., 2021) agrees that pain relief's one of the chief details producing medical discussion universally. Numerous castigations are tangled in discomfort assessment;

though, nurses have an essential part in the valuation, release, and assessment of discomfort. Because of the negative impact it has on daily living, managing pain effectively is a complex process (Farabelli et al., 2020). Nurses, as members of a team, share some of the blame for poorly treated conditions, despite the wide availability of pharmacological and nonpharmacological therapies. Surgical patients get reasonable to severe acute discomfort connected to shock or current operation, which decreases their coziness level (Alda et al., 2021).

In Kenya, no single-item pain measuring instrument has been validated for usage, including the FPS-R and the NRS. This is crucial since not all pain assessment instruments are reliable when they are translated into another language or utilized in a different culture. Multicultural authentication of useful and acceptable pain valuation instruments for usage in Kenya is urgently needed. Kenya has received special attention because of its failure to offer adequate pain evaluation and management for children. Clinicians in Kenya are not qualified to measure pain, and pain evaluation is not commonly conducted in hospitals. As a result of the dread of opioids and a absence of prioritizing of pain treatment, pain is routinely undertreated. For both pediatric and adult patients, properly assessing pain and doing so in a socially acceptable way are critical initial steps in overcoming these pain treatment problems (Lotan & Icht, 2023).

## **1.2 Problem Statement**

Pain is believed to affect between 47 and 100 percent of people, providing a significant problem for people of all ages, ethnicities, sexes, socioeconomic position, and geographical regions (Malicka et al., 2022). Pain is a global issue that requires a multidisciplinary response, conferring to the World Health Organization, despite the fact that it does not occur on the list of ailment loads. A more severe form of depression may develop when pain is unavoidable, leading to emotions of helplessness and even despair (WHO Report, 2022). Because pain has an influence on a patient's quality of life, pain cognition is essential to achieving these

objectives (Sheikh et al., 2021). Patients and their professions may suffer physical and psychological effects as a result of improperly evaluated pain. Inadequate pain assessment can lead to a delay in giving analgesia, which can lead to more anguish, dread, and worry, as well as, potentially, more pain. In addition, insufficient or poor pain treatment can lead to frustration and aggressiveness in patients (Chammas et al., 2022).

The focused on determinants of pain assessment on critically ill patients among nurses at selected hospitals of Kiambu County Kenya, hence the need to fill the existing gap.

### **1.3 Significance of the Study**

The policy makers especially those in the Health Ministry in Kenya will find the study useful as they will understand the pain assessment methods for critically ill patients at critical care unit. It is anticipated that the results of the research might have an impact on the evaluation of the pain assessment methods especially for critically ill patients at critical care unit so as to advance nurses' awareness and expertise in pain valuation. The research will be a baseline valuation of pain for CI patients at TL5H. Study finding will be shared in forums which will assist in change of approach and conduct in the direction of usage of pain assessment tools. The research will enable the management come up with the right infrastructure for assessment of pain for severely sick patients. Scholars will be capable of pursuing further research on the subject based on the study's recommendations. The conclusions of this research might be used by organization and other stakeholders at selected hospitals in Kiambu County Kenya to develop appropriate strategies to ensure that nurses have the necessary skills and knowledge to assess pain in mechanically examined patients in the hospital's critical care element.

## **2.0 Literature Review**

### **2.1 Institutional Factors on Nurse's Assessment Pain**

Pain evaluation and management in long-term upkeep facilities is complicated by a number of variables. To overcome these obstacles, institutional commitment is required (K. Lee et al., 2020). The American Medical Directors Association Guidelines for Chronic Pain Treatment in Long-Term Precaution Settings identify communication, education, and staffing as key elements in establishing an institutional commitment to pain management (Solem et al., 2020). To guarantee that information concerning a resident's pain is frequently transmitted and acted upon by the relevant personnel, communication procedures must be in place (Bender et al., 2022).

Pain management education should be incorporated in both initial and ongoing training for all health care practitioners. Pain recognition training and mentorship should be provided to nursing assistants and other direct caregiving personnel. Misconceptions and falsehoods regarding pain should be debunked as part of pain management education. The training should assist employees in recognizing and overcoming their own cultural and gender prejudices. The correct use of pain assessment instruments, as well as how to promote and coordinate pain management, should be taught to staff. Staffing arrangements that allow personnel to stay with the same residents for longer periods of time have been shown to enhance pain detection (Shen et al., 2023).

In the United States, (Elkbuli et al., 2020) focused on strategies to enhance nurses' pain evaluation in order to improve patient satisfaction. With the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores connected to payment, it was highlighted that patient satisfaction with pain treatment is becoming increasingly important. Following the intervention, the nurses' understanding increased considerably. According to focus group remarks, there is a need for education on the relationship between pain treatment and patient

happiness. Patient happiness and pain management were linked in a study that enhanced results. The capacity to properly and consistently identify and attend to pain, as well as aid patients in methods that upsurge their pain management consummation, remained a continuing educational and practice requirement. However, the study only looked at one institutional element in terms of pain evaluation and management: the infrastructure for nurse education (Yarycky et al., 2024).

In Malaysia, (Mei, 2021) investigated attitudes regarding pain management in hospitalized cancer patients and their contributing variables, using questionnaires as data collecting techniques. The patients' pain understanding impacted their views toward cancer pain management. Patients with a limited understanding of pain were concerned about analgesic delivery. The researchers came to the conclusion that patients' views about cancer pain treatment were negative and needed to be addressed. Their opinions about addiction and tolerance were negative, but their attitudes toward religious fatalism and a desire to do good were positive. The views of the patients' careers and the patients' pain knowledge impacted their attitudes toward cancer pain management. However, in terms of pain evaluation and therapy, the study focused on only one institutional factor: institutional patients' pain knowledge (Mescouto et al., 2022).

According to (Erasmus, 2022) utilized a quantitative design and questionnaires to collect data while researching the influence of a pain valuation exercise package on Nigerian nurses' understanding of pain treatment. The nurses were chosen using a systematic random selection approach. It was discovered that current information regarding pain assessment and treatment was lacking, and that the nurses' pain instructive package had a good impact on nurses' information, rehearsal, and protest linked to pain valuation and organization. There is a necessity to develop and to apply a unceasing expert tutoring package on pain and its valuation, with a particular emphasis on pain valuation techniques, standards, procedures, and patient

recording. A supportive atmosphere is required to guarantee the appropriate and sustained use of tools, procedures, and charts, which may be achieved by increasing personnel, providing nursing, and providing sustenance management by knowledgeable and trained nurses. However, the research only looked at one institutional component in terms of pain evaluation and management: training programs (Erasmus, 2022).

### **3.0 Research Methodology**

This research used a descriptive research design where the study used cross-sectional and quantitative data was used. The study was done in Kiambu County Kenya where the focus was on Thika level 5 Hospital, Kiambu level 5 hospital and Tigoni level 4 hospital. A sample size of 400 will result to a corresponding sample size of 196 respondents. The research comprised all the nurses employed at Thika Level 5 Hospital, Kiambu level 5 hospital and Tigoni level 4 hospital. The research instrument was a self-administered questionnaire that aided in the gathering of primary data. Closed-ended questions were included in the research tool to allow the researcher to collect particular information pertinent to the study. The pre-test was done on 10 nurses at Ruiru Hospital who did not partake in the actual study. The consent was obtained from the piloted nurses and the purpose of the pretest was to improve rationality and dependability of the research gadget. The quantitative data generated from the questionnaires was coded and keyed into SPSS Version 22 for descriptive analysis to generate frequencies, percentages and tabulations. Frequencies and percentage distribution was used to examine the relation between independent and dependent variables individually. The researcher sought Mt Kenya University's Ethics and Research Board's permission (ERB). The National Council for Science, Technology, and Innovation was also be contacted for permission to conduct the research. The Kiambu County Ethical Research Committee and the selected hospitals in Kiambu County Kenya

## 4.0 Results and Findings

### 4.1 Descriptive analysis Institutional Factors in the Nurse's Assessment of Pain

#### Adequacy of Staff Involved in Pain Assessment Procedure

The study sought to determine whether the number of staff involved in the assessment of pain in your hospital is adequate.

Table 1: Adequacy with Staffs Involved In Pain Assessment

<b>Adequacy with Staffs Involved In Pain Assessment</b>	<b>Frequency</b>	<b>Percent</b>
Yes	144	85.7
No	24	14.3
<b>Total</b>	<b>168</b>	<b>100.0</b>

From the study statistics, the majority (85.7%) of the nurses indicated the number of staffs involved in the assessment of pain in the hospital was not adequate, while 14.3% were of the contrary opinion. This implies that the number of staffs involved in the assessment of pain in the hospital is not adequate.

#### Effectiveness of Communication Channels Used

The research inquired on whether the communication channel between the nurse and patients in regard to patients conveying of pain to nurses was effective.

Table 2: Effectiveness of Communication Channels Used

<b>Effectiveness of Communication Channels Used</b>	<b>Frequency</b>	<b>Percent</b>
Yes	136	81.0
No	32	19.0
<b>Total</b>	<b>168</b>	<b>100.0</b>

From the study statistics, the majority (81%) of the nurses indicated the communication channel between the nurse and patients with regard to patients conveying of pain to nurses is effective, while 19% were of the contrary opinion. This implies that the communication channel between the nurse and patients with regard to patients conveying of pain to nurses is effective.

### **Manner in Which Patient's Pain-Related Complaint Was Handled**

The study inquired on whether patients' complaints with regard to pain were acted upon appropriately and timely by the nurses.

Table 3: Manner in Which Patient's Pain-Related Complaint Was Handled

Manner in Which Patient's Pain-Related Complaint Was Handled	Frequency	Percent
Yes	153	91.1
No	15	8.9
Total	168	100.0

Statistics show that the majority (91.1%) of the nurses indicated Statistics show that the majority (91.1%) of the nurses indicated that patients' complaints in regard to pain were acted upon appropriately and timely by the nurses, while 8.9% were of the contrary opinion. This implies that patient's complaints with regard to pain are acted upon appropriately and timely by the nurses.

### Best Judges of Pain Intensity

The research sought to establish the best judges of pain intensity. Results are presented in the table.

**Table 4: Best Judges of Pain Intensity**

Best Judges of Pain Intensity	Frequency	Percent
Yes	159	94.6
No	9	5.4
<b>Total</b>	<b>168</b>	<b>100.0</b>

From the study statistics, the majority (94.6%) of the nurses indicated nurses are the best judges of pain intensity because they spend most of the time with the patient, while 5.4% disagreed with the statement. This implies that participants considered nurses to be the best judges of pain intensity because they spend most of their time with the patient.

### Nurse's Attendance on Pain Management Training

The study sought to determine whether the nurses had attended pain training programs with regard to pain assessment.

**Table 5: Nurses Attendance at Pain Management Training**

Nurses Attendance at Pain Management Training	Frequency	Percent
Yes	98	58.3
No	70	41.7
<b>Total</b>	<b>168</b>	<b>100.0</b>

Results showed that the majority (58.3%) of the nurses indicated having attended pain training programs in regard to pain assessment, while 41.7% indicated otherwise. This implies that at least half of the nurses mentioned herein had not attended any pain training programs with regard to pain assessment.

### **Adequacy of Pain Training Given to Nurses**

The study sought to determine whether the pain assessment education that nurses received was adequate.

Table 6: Adequacy with Pain Training Given To Nurses

<b>Adequacy with Pain Training Given To Nurses</b>	<b>Frequency</b>	<b>Percent</b>
Yes	58	34.5
No	110	65.5
<b>Total</b>	<b>168</b>	<b>100.0</b>

Statistics show that the majority (65.5%) of the nurses indicated that the pain assessment education they received during their training was inadequate, while only 34.5% indicated that the training was sufficient. This implies that the pain assessment education received by the majority of the nurses during their training was inadequate.

### **4.2 Hypothesis of Institutional Factors and Pain Assessment**

Chi square was used to test the hypothesis where the Pearson Chi-square method was used to test the 2 types of hypothesis which are null and alternative hypothesis. This is in regard to whether institutional factors had a significant effect on pain assessment for critically ill patients among nurses at selected hospitals in Kiambu County Kenya.

**Table 7: Hypothesis of Institutional Factors and Pain Assessment**

<b>Chi-Square Tests</b>			
	<b>Value</b>	<b>df</b>	<b>Asymptotic Significance (2-sided)</b>
Pearson Chi-Square	20.678a	9	.000
Likelihood Ratio	17.86	9	.000
Linear-by-Linear Association	2.417	1	.012
N of Valid Cases	168		

The Pearson Chi-Square test yielded a statistic of 20.678 with 9 degrees of freedom, indicating a significant overall association between institutional factors and pain assessment ( $p = .000$ ). Similarly, the Likelihood Ratio test resulted in a statistic of 17.86 with 9 degrees of freedom, supporting a significant association ( $p = .000$ ). Furthermore, the Linear-by-Linear Association test showed a statistically significant linear relationship between institutional factors and pain assessment, with a chi-square statistic of 2.417 and 1 degree of freedom ( $p = .012$ ). These findings suggest that institutional factors indeed play a significant role in shaping how pain assessment is conducted among nurses in the specified hospitals, emphasizing the importance of considering organizational contexts in pain management practices. The analysis encompassed 168 valid cases, ensuring the robustness of the results.

The discussion on institutional factors in pain assessment, supported by the reference to Smith et al. (2019), provides a theoretical framework to contextualize the research findings. The mentioned factors, such as organizational policies, resource availability, and institutional culture, directly resonate with the broader understanding of how these elements influence nurses' perceptions and practices related to pain assessment. The standardization of pain assessment tools, emphasized in institutional protocols, aligns with the idea that organizational policies can shape the consistency and accuracy of pain evaluations. Similarly, the reference to

resource availability reflects the impact of institutional factors on the thoroughness and timeliness of pain assessments, as noted in the research findings.

Moreover, the discussion underscores the significance of institutional culture, particularly its influence on prioritizing pain assessment within the broader context of patient well-being. The research findings from Kiambu County affirm the importance of understanding and addressing these institutional factors, as they directly correlate with the effectiveness of pain assessment practices. By acknowledging and optimizing these organizational dynamics, healthcare institutions can enhance the quality of care provided to critically ill patients experiencing pain, aligning with the broader goal of patient-centered and interdisciplinary approaches to pain management.

## **5.0 Summary, conclusion and recommendations**

### **5.1 Institutional Factors That Influence Pain Evaluation in Severely Sick Patients**

This research established that various institutional factors influence the way nurses handle pain cases in critically ill patients. One of the figures highlighted is the personnel working in Kiambu County Hospitals. Based on the statistics from the majority of the nurses (85.7%), the study finds that the number of staff involved in the assessment of pain in hospitals in Kiambu County is inadequate. Another factor mentioned is the communication channel between the nurses and patients. According to the statistics, the majority (81%) of the nurses indicated that the communication channels between the nurse and patients in regard to patients conveying of pain to nurses were not as effective as expected. The findings contradict the proposal by Silverman and Kurtz Draper (2016) that to guarantee that information concerning a resident's pain is frequently transmitted and acted upon by the relevant personnel, communication procedures must be in place.

Another factors concern is the manner in which patient's pain complain were handled whenever raised, staistics show that majority (91.1%) of the nurses agreed that every patient's complain in regard to pain was acted upon appropriately and timely by nurses on duty, self-confidence is also on other key attribute when handling complex in problem such as pain, statistics (94.6%) show that nurses considered themselves as the best judges of pain intensity because they spend most of the time with the patients and that that Nurses' use of pain assessment instruments was hampered by their workload and an unfriendly working environment. Similarly, Schroeder et al. (2020) conclude that capacity training and Staffing arrangements that allow personnel to stay with the same residents for longer periods of time enhance pain detection.

Simultaneously, continuous staff training and development were too highly emphasized as contributing factors. Results show that the majority (58.3%) of the nurses had attended pain training programs; however, a significant number had not. Despite having attended such a program, the majority of the nurses (65.5%) were of the view that the pain assessment education they had received was inadequate and thus insufficient. This call calls for the implementation of the research recommendation by Rodriguez et al. (2018) that pain recognition training and mentorship should be provided to nursing assistants and other direct caregiving personnel.

## **5.2 Conclusion**

The study concludes that institutional-related factors influenced pain evaluation procedures for severely sick patients within the selected hospitals in Kiambu County, Kenya. Some of the hospital-related factors include the internal communication channels, level of staffing, availability of patient handling equipment, teamwork amongst the nurses, and level of supervision, work regulations, and hospital work environment.

### 5.3 Recommendations

Given that institutional factors such as level of staffing, availability of patient handling equipment, teamwork amongst the nurses, level of supervision, work regulations, and hospital work environment were found to affect efficiency in main management, the study proposed the following: adequate staffing, promotion of personal observance of ethical nursing practice, timely provision of medical equipment, cultivation of a flexible work culture, and safe hospital work environments.

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