

PRELIMINARY SURVEY TO EVALUATE HEALTHCARE WORKERS' KNOWLEDGE ON PAIN MANAGEMENT

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ABSTRACT

Objectives: To assess the knowledge of healthcare workers on pain management in the Department of upper limb surgery, Trauma and Orthopedics Institute, Military Hospital 175.

Subjects and methods: A cross-sectional study was conducted on 20 participants who consented to join, consisting of staff working in the Department of upper limb surgery, Trauma and Orthopedics Institute, 175 Military Hospital. A questionnaire, adapted from the “Knowledge and Attitudes Regarding Pain Assessment and Management”, was utilized to suit this study.

Results: Among the 20 healthcare workers participating in this study, the ratio of doctors to nurses was 9:11. Most participants held educational qualifications at the college level or higher, with 50% holding bachelor's degrees and 30% having postgraduate degrees. Additionally, 90% of participants had at least one year of work experience, and 75% had undergone training or updates on pain management. Out of 30 questions, 6 had a rate of incorrect answers exceeding 50%, primarily focusing on opioids and narcotics. The survey showed that 8 participants achieved a correct response rate of 70% or higher, and no participant scored below 50%. **Conclusion:** Overall, the general knowledge of healthcare workers about pain management in this study was relatively good. However, the study recommends implementing more continuous training courses on pain

management to comprehensively update and enhance healthcare workers' knowledge.

Key words: pain management, surgery, surgical care.

I. INTRODUCTION

Pain is among the most frequently experienced symptoms linked to various health conditions, driving many patients to seek medical services. Statistics indicate that approximately 50–80% of hospital admissions are related to pain. If left unmanaged, pain can trigger stress responses, affecting both physiological and psychological well-being, leading to adverse consequences that diminish quality of life [1]. In recent decades, pain has emerged as a pivotal focus of research, with its management being established as a primary priority in healthcare. To accurately assess and effectively manage pain, healthcare professionals must possess a thorough understanding of relevant concepts, up-to-date knowledge, an appropriate attitude, and specialized skills in pain evaluation and treatment [1]. Despite advancements, numerous studies highlight significant gaps in the knowledge, attitudes, and skills required for effective pain management. Pain remains frequently misunderstood, inaccurately assessed, and inadequately addressed across many healthcare settings globally [1],[2],[3].

The Department of upper limb surgery, specializing in the treatment of upper limb trauma, frequently handles a high volume of

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patients. However, no research to date has assessed pain management practices among healthcare staff in this department. To address this gap, the current study was conducted with the objective “To assess the knowledge of healthcare workers on pain management in the Department of upper limb surgery, Trauma and Orthopedics Institute, Military Hospital 175”.

II. SUBJECTS AND METHODS

2.1. Research subjects

Study site and period: Conducted at the 175 Military Hospital from August 2024 to December 2024.

Participants: A total of 20 individuals working in the Department of upper limb surgery, Trauma and Orthopedics Institute, Military Hospital 175, who agreed to participate in the study. **Exclusion criteria:** Healthcare workers absent due to training, work trips, or those unwilling to participate in the survey.

2.2. Research methods

Study design: A cross-sectional descriptive study, employing self-assessment surveys to evaluate healthcare workers' and medical students' knowledge of pain management.

Research tools and data collection techniques:

Tools: A questionnaire developed from the “Knowledge and Attitudes Regarding Pain Assessment and Management” [3],[4], tailored for this study. A correct knowledge score of 70% or higher was considered desirable for the study. Participants were blinded to their results to avoid result-sharing among respondents.

Steps of implementation:

Step 1: Collect and record initial data.

Step 2: Compile and statistically analyze data.

Step 3: Draft the research report.

Data analysis: Data were entered, analyzed, and processed using SPSS version 29.

III. RESULTS

Table 1: General characteristics of study participants (n=20)

Characteristics	Number	Percentage (%)
Gender		
Male	14	70
Female	6	30
Profession		
Nurse	11	55
Doctor	9	45
Education level		
Intermediate	0	0
College	4	20
University	10	50
Postgraduate	6	30
Years of work experience		
Less than 6 months	0	0
6 months to 1 year	2	10
1 to 5 years	4	20
More than 5 years	14	70
Trained in pain management knowledge		
Yes	15	75
No	5	25

Table 2: Healthcare Workers' Knowledge on Pain Management (n=20)

Content	Correct Responses	
	Number	Percentage (%)
Knowledge of Pain Assessment		
Are vital signs a reliable indicator of a patient's pain intensity in all cases?	16	80
Are children under the age of two less sensitive to pain and have limited memory of it due to their underdeveloped nervous system?	15	75
Patients who can forget their pain usually do not have severe pain?	12	60
Patients can sometimes sleep despite experiencing significant pain levels	6	30
Are children under 11 unable to reliably report pain, making parental assessment the sole source for evaluating pain intensity?	12	60
Can a patient's spiritual beliefs lead them to view pain and suffering as essential?	10	50
What is the primary reason a patient experiencing pain would request a higher dose of pain medication?	15	75
Who is the most accurate judge of the patient's pain intensity?	13	65
Knowledge of Medications/Usage in Pain Management		
Are aspirin and other non-steroidal anti-inflammatory drugs (NSAIDs) ineffective in managing pain associated with bone metastases?	13	65
Is respiratory depression uncommon in patients maintained on stable opioid doses for extended periods?	12	60
Does combining pain relievers with different mechanisms of action (e.g., opioids with NSAIDs) improve pain control and reduce side effects compared to using a single pain reliever?	20	100
Is the typical pain relief duration for 1–2 mg of intravenous morphine 4–5 hours?	5	25
Should opioids be avoided in patients with a history of substance abuse?	5	25
Does morphine have a maximum dosage threshold beyond which additional pain relief is not achieved?	5	25
Are elderly patients incapable of tolerating opioids for pain management?	16	80
Should patients be encouraged to tolerate as much pain as possible before resorting to opioid use?	17	85
After administering the first opioid dose, should subsequent doses be adjusted according to the patient's response?	19	95
Is injecting distilled water (placebo) a good way to determine whether a patient's pain is real?	15	75
If the cause of a patient's pain is uncertain, should opioids be avoided during the assessment phase to prevent interference with accurate diagnosis?	7	35
Do anticonvulsants such as gabapentin (Neurontin) deliver optimal pain relief with just one dose?	15	75
Are benzodiazepines effective for pain relief exclusively in cases where the pain is caused by muscle spasms?	13	65

Content	Correct Responses	
	Number	Percentage (%)
Is opioid addiction classified as a chronic neurological disorder characterized by behaviors like impaired control over drug use, compulsive drug-seeking, and persistent use despite negative consequences?	16	80
What is the recommended route of opioid administration for managing persistent pain associated with cancer?	12	60
What is the preferred route of opioid administration for managing severe, acute, and sudden-onset pain, such as that caused by trauma or post-surgical procedures?	17	85
Which analgesic is regarded as the first-line treatment for managing moderate-to-severe persistent pain in cancer patients?	18	90
What intravenous morphine dose administered over four hours is equivalent to 30 mg of oral morphine given every four hours?	8	40
Which options are effective for treating cancer-related pain?	18	90
How long does it take for intravenous morphine to reach its maximum effect?	17	85
How long does it take for oral morphine to achieve its maximum effect?	9	45
What symptoms of physical dependence may emerge after the sudden discontinuation of opioids?	6	30

Table 3: Correlation between participant characteristics and pain management knowledge survey results (n=20)

Characteristics		Survey Results (% Correct Responses)		
		>= 70%	50% - 69%	< 50%
Total		8	12	0
Gender	Male	6	8	0
	Female	2	4	0
Profession	Nurse	2	9	0
	Doctor	6	3	0
Education level	Intermediate	0	0	0
	College	1	3	0
	University	1	9	0
	Postgraduate	6	0	0
Years of work experience	Less than 6 months	0	0	0
	6 months to 1 year	0	2	0
	1 to 5 years	1	3	0
	More than 5 years	7	7	0
Trained in pain management knowledge	Yes	5	10	0
	No	3	2	0

IV. DISCUSSION

The research questionnaire was distributed to 33 staff members in the Department of upper limb surgery, yielding 20 responses, with a response rate of 60.61%. According to Table 1, the ratio of doctors to nurses was 9:11. Most participants had an educational level of college or higher, with 50% holding a university degree and 30% having postgraduate qualifications. Notably, 90% of participants had at least one year of work experience, and 75% had attended training sessions or received updates on pain management knowledge.

Table 2 presents the percentage of correct answers to the survey questions. The results show that most healthcare staff demonstrated a good understanding of patients' pain experiences. However, among the 30 questions, six had a correct response rate of less than 50%, primarily focusing on opioids and addictive substances. Some healthcare staff also believed that patients with acute pain could not sleep, likely reflecting the specific characteristics of patients admitted to the surgical department.

According to Table 3, out of 20 participants, 8 achieved a correct response rate of 70% or higher, with no participant scoring below 50%. Remarkably, 6 out of 9 surveyed doctors scored over 70% correct. Although the study had a small sample size and certain limitations, the high level of education and extensive work experience of staff in the department appeared to contribute to their strong understanding of pain management.

Effective pain management is closely linked to a deep understanding of pain, with clinical assessment being the first and most crucial step. Inadequate pain management can result from a lack of knowledge, leading to adverse physical and psychological outcomes for patients. Therefore, assessing pain-related knowledge across all healthcare

disciplines, from students to specialists, is essential to improving care quality.

Doctors, as the primary prescribers of pain relief medications, play a pivotal role in pain management. A lack of knowledge or negative attitudes toward pain assessment and management will inevitably affect the quality of hospital care provided to patients. Increased experience and specialized training can enhance doctors' competence in evaluating and managing patients' pain. While nurses are not responsible for prescribing medication, they play a critical role in managing dosage, timing, and patient responses to medications. Providing intensive courses on clinical pharmacology and incorporating pain-related content into continuing medical education programs is crucial to equipping nurses with the skills necessary to improve patient care.

These findings underscore the importance of ongoing and specialized training for healthcare professionals to optimize pain management and improve the quality of patient care.

V. CONCLUSION

This study demonstrates that healthcare staff have a relatively good understanding of pain management. However, to enhance their competencies and ensure comprehensive knowledge updates, it is recommended to organize additional continuous training programs on pain management and control for healthcare professionals. These initiatives will contribute to improving patient care quality and the effectiveness of pain management in clinical practice.

LIMITATIONS

The study was limited to staff from a single clinical department, resulting in a small sample size. Future research should expand the scope to include all staff members of the Trauma and Orthopedics Institute, and

medical students undergoing clinical internships at Military Hospital 175. Additionally, longitudinal surveys should be conducted to track participants' knowledge before and after attending pain management training programs. This approach will address inconsistencies in individual knowledge at the time of the survey and provide more accurate data on the effectiveness of the training initiatives.

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