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Knowledge, Attitudes, and Perceived Barriers of Nurses Regarding Pain Management in Emergency Department; a KAP Study

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Abstract: **Introduction:** Adequate knowledge and positive attitude among nurses are essential for successful pain management as a fundamental aspect of patients' rights. This study aimed to assess the knowledge, attitude and perceived barriers of nurses regarding acute pain management in emergency department. **Methods:** In this cross-sectional study, participating nurses were selected using a consecutive sampling technique within a medical university. Data were collected using 4 questionnaires, which consisted of demographic information checklist, Pain Management Principles Assessment Tool (PMPAT), Nurses' Attitude Survey (NAS), and Nurses' practice checklist. The correlation between knowledge, attitude, and barriers with each other and with baseline characteristics of participates were studied. **Results:** 400 nurses with the mean age of 38.26±10.39 years were studied (63% male). The average knowledge score of studied nurses was 7.38 ± 2.16 (range: 1 -14). All 400 (100%) nurses exhibited a low level of knowledge. The mean attitude score of participants was 58.47± 22.08 (range:26-100). 214 (53.5%) cases had low attitude, 44 (11.0 %) average attitude, and 142 (35.5%) cases exhibited a high attitude score. The mean score of barriers about pain management was 36.48 ± 23.52 (range: 0 – 80). 23 (5.8%) participants answered the perceived barriers as never, 113 (28.3%) as seldom, 71 (17.8%) as sometimes, 133 (33.3%) as often, and 60 (15.0%) as routine. There was an reverse relationship between the knowledge score and perceived barriers of pain management (r=-0.164, p<0.001). No significant relationship was found between the average knowledge score and nurses' attitudes (r = 0.092; p > 0.065). **Conclusions:** The findings of this study highlight the need for ongoing training and the organization of workshops for nurses due to their low levels of knowledge and attitude. These training sessions should focus on the concept of pain, assessment methods, pain relief, as well as pharmacology and the physiology of pain.

Keywords: Attitude; Emergencies; Knowledge; Nurses; Pain management; Perception

1. Introduction

Pain stands as a predominant motive prompting patients to seek care in the emergency department, with over one-third of them reporting moderate to severe pain upon arrival (1, 2). Accurate and thorough assessment represents a pivotal factor in effectively controlling patients' pain (3, 4). Stressing the patients' right to be pain-free, pain management is essential and can be assessed using instruments including physiological measures, behavioral observation, and self-reporting systems (5-7).

The Iranian Rehabilitation and Electrodiagnosis Association estimates that 10–20% of Iranians, equivalent to approximately 1 in 6 individuals, experience various forms of chronic pain. This frequency could rise to 30% as the number of senior citizens increases (8). Nurses play a role in managing pain by controlling the timing of medication administration

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and selecting appropriate pain relievers when multiple options are prescribed. However, studies suggest that nurses in our country may lack sufficient information in this field, contributing to challenges in pain management (5).

The lack of knowledge and negative attitudes of nurses toward pain emerge as the most crucial barriers to effective pain management (6,7) and post-discharge, patients often express dissatisfaction with the adequacy of examination and management of pain in hospitals (8,9). Frequent pain assessment and control represent vital nursing care responsibilities, yet these evaluations are not consistently conducted (10). This underscores the pivotal role nurses play in ensuring effective pain control through informed decision-making across various stages of patient care.

Limited research in our country suggests a deficiency in nurses' knowledge regarding pain management, indicating a lack of formal pain assessment training during their academic education (11-13). This study aimed to assess the knowledge, attitudes, and perceived barriers among emergency department (ED) nurses in North Iran.

2. Methods

2.1. Study design and setting

This study employed a descriptive analytical cross-sectional design to examine the knowledge, attitudes, and perceived barriers among nurses in relation to pain management in emergency department. The research duration extended from August 2022 to December 2023, concentrating specifically on nurses employed within the emergency departments of 4 teaching and research hospitals situated in Mazandaran province.

The approval for the research was obtained from the Ethics and Research Committee of Medical University (Ethics code: IR.MAZUMS.IMAMHOSPITAL.REC.1401.13983). Prior to participation, written informed consent was obtained from all enrolled individuals. Each participant received comprehensive information regarding the study's objectives and procedures, along with assurances concerning the preservation of their anonymity and the confidentiality of their data. Furthermore, participants were explicitly informed of their voluntary participation and their right to withdraw from the study at any stage without facing any repercussions.

2.2. Study participants

This investigation was carried out within the cadre of nurses working in the emergency department. Including nurses across morning, evening, and night shifts, the study targeted individuals holding a minimum of a bachelor's degree, exhibiting a willingness to engage in the research, and possessing a service tenure of at least 6 months. Nevertheless, nurses unavailable for data collection during the specified period due to any reason were deliberately excluded.

The sampling method in the study was a total consecutive, and included all nurses working in the emergency depart-

ment of 4 teaching hospitals of Mazandaran province.

2.3. Data collection instruments

In this study, four tools were employed to gather information, including a self-reporting demographic questionnaire to collect data on participants' age, gender, educational qualifications, employment status, and work experience. Additionally, we utilized the Pain Management Principles Assessment Tool (PMPAT), Nurses' Attitude Survey (NAS) questionnaire, and Nurses' practice checklist. The PMPAT and the NAS questionnaires were developed in the year 2000 by McMillan to assess nurses' knowledge and attitudes concerning pain management (14). The PMPAT assesses nurses' knowledge in various domains, including physiology, pain characteristics, pain management techniques, addiction to analgesics, assessment techniques, aims, and principles of pain management. The survey instrument consists of a set of 31 multiple-choice questions, each carrying a scoring mechanism wherein a correct response is awarded a score of 1, while incorrect or unanswered questions are assigned a score of zero. The scoring range is 0–30. Nurses scoring over 70% demonstrate a good level of knowledge, while a score between 50% and 70% indicates average knowledge, and less than 50% reflects poor knowledge in pain management.

On the other hand, the NAS questionnaire explores the attitudes of nursing staff regarding the use of narcotics, addressing concerns such as fear of addiction, palliation, sedation, and respiratory depression. This instrument is composed of 25 questions structured in a 4-point Likert scale format, producing scores within the range of 25 to 100. Affirmative-oriented statements, such as "completely disagree," are allocated a score of 1, "disagree" accrues a score of 2, "agree" receives a score of 3, and "completely agree" is assigned a score of 4. Conversely, negative-oriented statements follow the reverse scoring order. A cumulative score equal to or greater than 70% indicates a highly positive attitude, a range of 50%–69% reflects an intermediate attitude, while a score of 49% denotes a poor or negative attitude towards pain management.

The assessment of nurses' perceived barriers to pain management comprised a set of 20 items presented in a 5-point Likert scale format. Scores for this tool ranged from 0 to 80. Responses were categorized as follows: "never" scored 0 (0%), "seldom" scored 1 (<25%), "sometimes" scored 2 (26-50%), "often" scored 3 (51-75%), and "routine" scored 4 (>75%). Scores of 0% indicated an absence of perceived barriers, scores of less than 25% indicated seldom perceived barriers, 26-50% suggested some perceived barriers, 51-75% reflected often perceived barriers, and scores exceeding 75% indicated routine perceived barriers. The questionnaires were translated into Farsi by the research team at Mazandaran Faculty of Medical Sciences, with validation conducted by 10 professors. The reliability of the PMPAT, NAS and nurses' perceived barriers questionnaire, determined through Cronbach's alpha, yielded a reported value of 0.9,

0.87, and 0.84 respectively.

2.4. Data collection procedure

Distribution of the questionnaire took place among the nursing personnel following the endorsement from the Ethics and Research Committee during the period from August 2022 to December 2023. Each nurse received full information about the study and questionnaire. Individuals manifesting an interest in participating were directed to endorse the consent form, complete the questionnaire, and subsequently submit these documents to the researchers. Data collection spanned a three-month period, during which meticulous efforts were made to ensure thorough and inclusive participation. To facilitate this, a series of three reminders were sent to the included nurses. Data were gathered by the three members of research team.

2.5. Statistical analysis

The data analysis was conducted using SPSS/V 23. To ensure the normality of the distribution of quantitative data for participants, the Kolmogorov–Smirnov test was employed. Descriptive statistics, such as mean ± standard deviation (SD) and frequency (%), were utilized to present the knowledge, attitude, and perceived barriers to pain management in emergency department among nurses.

In this study, inferential statistical analyses were conducted, utilizing Spearman's correlation coefficient test to elucidate the relationships among knowledge, attitude, and perceived barriers toward acute pain management in emergency department. Furthermore, these statistical methods were employed to discern associations between nurses' knowledge, attitudes, and perceived barriers relative to their demographic characteristics. The Mann-Whitney and Kruskal-Wallis tests were applied to assess differences based on sociodemographic characteristics. The significance level for all tests was set at less than 0.05.

3. Results

3.1. Demographic characteristics of participants

400 nurses with the mean age of 38.26±10.39 (range: 22-57) years were studied (63% male). The predominant proportion of nurses (84.5%) possessed a bachelor's degree. The mean total duration of service was 10.92±8.29 years, and the mean duration of service specifically in the emergency department was 5.15±4.37 years. Nurses with 12-15 years of service made up 14.5%, while 27.8% had under a year of experience in the emergency department. Table 1 shows the baseline characteristics of studied nurses and its associations with participants' knowledge, attitude and barriers to pain management.

3.2. Knowledge scores regarding pain management

The average knowledge score of studied nurses was 7.38 ± 2.16 (range: 1 -14). All 400 (100%) nurses exhibited a low level

of knowledge. There was no significant association between gender (p=0.824), age (p=0.617), educational level (p = 0.815), work experience as nurse (p = 0.391), and work experience as ED nurse (p = 0.620) with knowledge score. Figure 1 shows a comprehensive breakdown of the correct responses to individual items in the PMPAT questionnaire.

3.3. Attitude scores regarding pain management

The mean attitude score of participants was 58.47± 22.08 (range:26-100). 214 (53.5%) cases had low attitude, 44 (11.0 %) average attitude, and 142 (35.5%) cases exhibited a high attitude score. There was no significant association between gender (p=0.318), age (p=0.317), educational level (p = 0.780), work experience as nurse (p = 0.306), and work experience as ED nurse (p = 0.364) with attitude score. Table 2 provides a comprehensive details of attitude scores based on NAS questionnaire.

3.4. Perceived barriers scores regarding pain management

The mean score of perceived barriers about pain management among studied nurses was 36.48 ± 23.52 (range: 0 – 80). 23 (5.8%) participants answered the perceived barriers as never, 113 (28.3%) as seldom, 71 (17.8%) as sometimes, 133 (33.3%) as often, and 60 (15.0%) as routine. There was no significant association between gender (p=0.427), age (p=0.285), educational level (p = 0.532), work experience as nurse (p = 0.214), and work experience as ED nurse (p = 0.451) with perceived barriers scores. Table 3 presents the details of nurses' perceived barriers toward pain management in emergency department.

3.5. Relation between knowledge, attitude and perceived barriers

There was a reverse relationship between the average knowledge score and perceived barriers of pain management, signifying that an increase in the average knowledge score was associated with a decrease in the average score of perceived barriers (r=-0.164, p = 0.001). No significant relationship was found between the average knowledge score and nurses' attitudes (r = 0.092; p > 0.065). A direct correlation was observed between the average attitude scores of nurses and their perceived barriers for pain management in ED (r=0.262, p<0.001).

4. Discussion

Untreated pain is a global problem that greatly increases the risk of preventable complications and needless medical expenses. For healthcare to be equitable and just, every patient must be given the proper comfort measures and be freed from pain and suffering. This descriptive cross-sectional study was carried out in Mazandaran Province, Iran, with the aim of assessing nurses' reported pain management knowledge, attitudes and barriers. In an overarching assessment, participants demonstrated suboptimal performance in the

knowledge and attitude domains. None of the participants attained a mean score of 70% or above, a benchmark considered adequate for proficiency in pain management knowledge. Consistent with analogous studies these findings underscore a substantial deficiency in both knowledge and attitude pertaining to management of pain (15,16). The lack of specialized pain evaluation and management courses in nursing schools may be the cause of the knowledge gap that has been found among Eritrean nurses (17). The majority of nursing school curricula lack expert sessions on pain evaluation and management, and the coverage of pain-related issues is insufficient and dispersed among different nursing courses, which serves as another example of this gap.

Prior research on the knowledge and attitudes of undergraduate nursing students toward the management of pain consistently found poor levels of competence across all domains (18-20). These collective findings suggest a systemic inadequacy in the curricular content related to pain, which falls short of sufficiently preparing undergraduate nursing students for effective clinical practice (17,18).

In contrast, studies conducted in Ethiopia (67.1%), Ghana (72.5%), and the United Kingdom (73.8%) have reported satisfactory levels of knowledge in pain management (21-23). This disparity could be attributed to variations in the survey tools employed for data collection.

Furthermore, differences in study settings, as well as the availability of workshops and courses for working nurses, could explain the observed disparities. Unlike in these nations, where nurses get ongoing pain management education as part of their practice, more than one-third of the nurses in the current study had never taken any pain management training or course.

Studies conducted in Iran highlight insufficient workshops for practicing nurses having a negative impact on nurses' knowledge of pain management (7, 24). To mitigate these challenges, it is recommended that a revision of nursing school curricula prioritize pain education. Additionally, the establishment of ongoing pain management programs (17, 18, 25) and the adoption of evidence-based guidelines and standards are advocated as measures to improve nurses' knowledge and attitudes, resulting in better pain management practices (26, 27).

The attitudes of nurses toward pain play a significant role in the pain management, reflecting their emotions, beliefs, and moods influenced by various factors. In simpler terms, their responses to challenging situations may lead them to either become indifferent or attentive in pain management, guided by their individual ideas and beliefs (15, 28,29). The findings of this survey revealed that around two-thirds (64.5%) of nurses had an unfavorable attitude toward pain management. This attitude may originate from their perception that treating a sick may need the patient to experience some level of discomfort.

These findings align with Adams' study, which suggested that negative attitudes of nurses towards pain management may be linked to a misconception that pain is crucial for healing (22). Adams further proposed that this belief could be attributed to the lack of training on pain management among nurses, preventing them from understanding the critical role of effective pain management in achieving complete recovery. However, organizations can leverage the insights gained from examining staff attitudes and opinions to make informed decisions, implement specific measures, and incorporate them into new plans and approaches for pain management and control.

Consistent with findings in Eritrea (16), Ethiopia (30), and northern Florida (31), emergency nurses in North Iran identified shared barriers to effective pain management. These barriers encompassed challenges such as overcrowding in emergency departments, a lack of readily available pain assessment tools, the absence of protocols/guidelines for pain management, and a shortage of protocols/guidelines for pain assessment. The identification of these barriers in the present study underscores the persistent challenges that impede optimal pain management in emergency care settings. Notably, the absence of validated pain assessment tools emerges as a significant obstacle, as the subjective interpretation of pain intensity by nurses and other healthcare professionals may lack reliability without standardized measures (30).

Recognizing the pivotal role of pain assessment in ensuring effective pain management, it is imperative that every emergency department possesses access to validated pain assessment tools. The current reliance on subjective interpretation, as indicated in prevailing practices, emphasizes the urgency for systematic changes (31). Given that many of the identified barriers are rooted in systemic issues, collaborative efforts between policymakers from the Ministry of Health and pertinent institutions become crucial. This collaboration should endeavor to formulate evidence-based protocols and guidelines that comprehensively address the assessment, documentation, and management of pain in emergency situations. A specific emphasis should be placed on regulatory considerations and the judicious use of narcotics (32).

Furthermore, efforts should be directed towards improving the nurse-to-patient ratio in emergency departments. Increasing this ratio would extend the time allocated to each patient, thereby minimizing the suffering experienced by patients in emergency care settings. Overall, addressing these barriers and implementing systematic changes are crucial steps towards enhancing pain management practices in emergency departments.

In the present study, no significant differences were observed in the age, gender, educational level, work experience, knowledge, attitude, and perceived barriers among nurses concerning pain management. These findings align with the results of some studies (17,18). However, they stand in contrast to previously published research that indicated notable variations in average mean scores related to nurses' attitudes and knowledge about pain management based on factors such as

gender (32), age (33), educational level (16, 33) and participation in previous courses on pain management (16, 34).

The divergence in findings highlights the complexity of understanding the factors influencing nurses' attitudes and knowledge about pain management. While some studies suggest significant associations with demographic and educational variables, the current study's results emphasize a lack of such distinctions. This underscores the importance of considering multiple factors and contexts in comprehending the nuances of nurses' perspectives on pain management.

5. Limitations

The data for this research were collected within a limited scope, and a more precise assessment would benefit from a larger and longer-term study involving a comprehensive treatment team. Additionally, cross-sectional studies are limited in revealing cause-and-effect relationships, making it advisable to conduct longitudinal studies to uncover such connections. The self-reporting format of this study introduces the possibility of bias in responses; however, efforts to mitigate this limitation were made by instructing participants to treat the information confidentially.

6. Conclusions

The findings of this study highlight the need for ongoing training and the organization of workshops for nurses due to their low levels of knowledge and attitude. These training sessions should focus on the concept of pain, assessment methods, pain relief, as well as pharmacology and the physiology of pain.

7. Declarations

7.1. Acknowledgments

None.

7.2. Authors' contribution

All the authors met the standard criteria of authorship based on the recommendations of international committee of medical journal editors. Study concept and design: AGH and MH. Acquisition, analysis, or interpretation of data: AGH, ZHM, MH, and AAM. Drafting of the manuscript: ZHM, AGH, SKM and ZHM. Critical revision of the manuscript for important intellectual content: ZHM, NK, MY, SKM and AGH. Statistical analysis: AF, SKM, Final draft and approval: all authors

7.3. Competing interests

The authors declare that there are no competing interests.

7.4. Availability of data and materials

The data generated and analyzed during the current study are available from the corresponding author upon reasonable request.

7.5. Using artificial intelligence chatbots

None.

7.6. Funding and supports

This study was not funded.

7.7. Ethics approval and consent to participate

The Ethics Committee of Mazandaran University of Medical Sciences in Iran granted approval for the execution of this study (ethical code: IR.MAZUMS.IMAMHOSPITAL.REC.1401.13983). Participation in the study indicated informed consent, as participants proceeded with the survey after reviewing the information provided. The methods employed in this study adhered to the principles outlined in the Declaration of Helsinki and its subsequent amendments.

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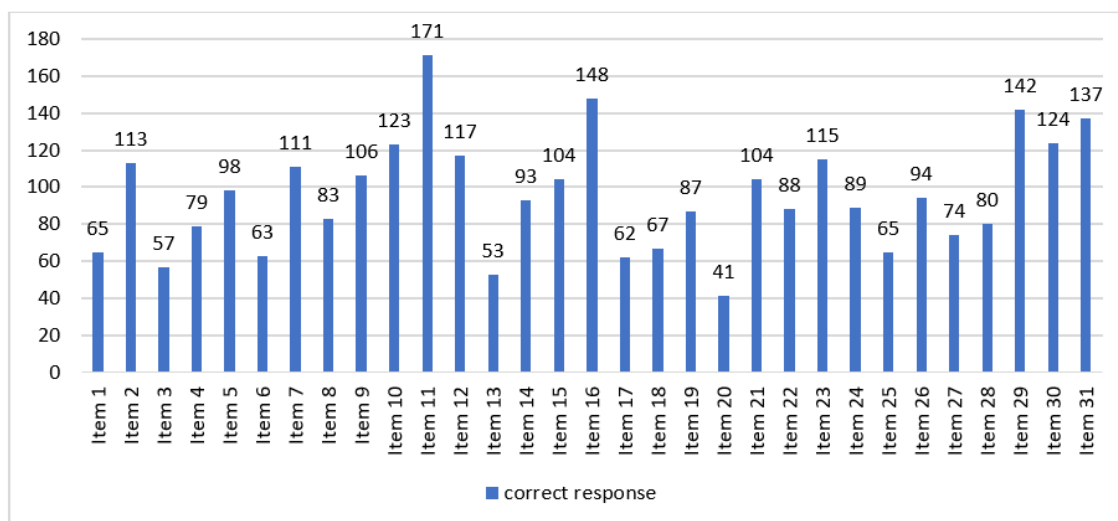
Figure 1: Item-wise correct response on Pain Management Principles Assessment Test (PMPAT) questionnaire.

1 Percentage of cancer patients who experience pain at some point during their illness

2 Percentage of cancer patients who suffer pain for longer than a month

3 If the patient still complains of pain despite receiving the maximum dose of medication to relieve the pain, what should the nurse always do?

4 What is the best way to prescribe narcotic analgesics in cancer patients?

5 What is the best time to seek medication in a patient on prescription analgesia to relieve cancer pain?

6 Who can make the most accurate and reliable judgment about the pain intensity of cancer patients?

7 What percentage of patients who take narcotic analgesics on a scheduled basis become addicted to these drugs?

8 Which of the following statements correctly describes the mechanism of action of analgesics?

9 What types of pain can be treated with skin irritations?

10 Which of the following statements correctly describes the philosophy of using analgesics in patients with advanced cancer?

11 Which group of symptoms is most associated with chronic pain?

12 Which of the following drugs has the longest duration of action?

13 Which cases are usually associated with acute pain?

14 Which of the following is perceived as itching and throbbing pain?

15 According to pain control gate theory, what is the area responsible for this function in the nervous system?

16 By what is pain regulated?

17 Ms. Colton is a 72-kilogram, 24-year-old woman. She underwent hysterectomy and dropped eight milligrams of morphine at 4 p.m. It is now 32:16 and he has complained of pain and is asking for more drugs. What is his pain most related to?

18 What should be your goal in managing pain in Ms. Calton after an abdominal hysterectomy?

19 Mr. West has prostate cancer that has metastasized to the bone. What is the first factor we need to consider when caring for him?

20 In assessing the patient's pain, what variables should the nurse consider that are effective in expressing pain?

21 How does naloxone work?

22 The researchers showed that:

23 What is one of the main disadvantages of meperidine?

24 Which of the following methods of prescribing narcotic analgesics produces a fixed level of analgesia in the patient?

25 What are the primary benefits of having a consistent level of pain control?

26 The nurse's decision to give analgesics should be based on all of the following, other than:

27 Who has the most control over the patient's pain management program?

28 What is the meaning of this statement? After repeated doses of analgesic drugs, the effect of a drug decreases and the patient needs more and more doses of the drug. This decline begins with a reduction in the pain relief period first and then a reduction in the analgesic effect.

29 Ms. Stone has metastatic breast cancer and painful lesions in the spinal cord. Because of her fear of drugs, she prefers to use painkillers when needed. You massage her back and use a hot pack. This is an example of:

30 Another approach you might consider about Ms. Stone. Focus on techniques such as working with tables, reading books, or knitting. What is this method called?

31 Ms. Strick is a 72-year-old woman with cancer that has metastasized to the pelvis. In addition, she has severe arthritis. Which of the following is sufficient to manage her pain?

Table 1: Correlation between baseline characteristics of studied nurses with their knowledge, attitude and barriers scores regarding pain management in emergency department

Variables	Total	Knowledge	P	Attitude	P	Barriers	P
Gender							
Male	252 (63)	7.38±2.16	0.824	57.87±21.35	0.318	36.97±23.33	0.427
Female	148 (37)	7.37±2.12		59.48±23.3		35.64±23.9	
Age (year)							
29	113 (28.3)	7.15±2.18	0.617	58.32±22.42	0.317	37.01±25.19	0.285
30-39	102 (25.5)	7.45±2.09		59.95±21.82		34.61±22.95	
40-49	116 (29)	7.56±2.08		55.95±21.59		34.81±22.28	
50	69 (17.3)	7.34±2.27		60.73±22.74		41.15±23.37	
Educational level							
Bachelor's degree	338 (84.5)	7.39±2.15	0.815	58.69±22.36	0.780	36.25±23.54	0.532
Master's degree	62 (15.5)	7.33±2.14		57.25±20.6		37.7±23.57	
Work experience as a nurse (year)							
3	112 (28)	7.24±2.23	0.391	58.16±22.63	0.306	37.46±25.15	0.214
4-7	62 (15.5)	7.25±2.02		60.3±19.25		32.03±21.38	
8-11	36 (9)	7.08±2.07		54.27±24.6		38.02±24.89	
12-15	58 (14.5)	7.86±1.94		57.06±21.83		37.13±23.39	
16-19	49 (12.3)	7.69±2.21		56.06±21.28		31.51±21.72	
20	83 (20.8)	7.27±2.22		61.73±22.84		40.27±22.97	
Work experience as an emergency nurse (year)							
1	111 (27.8)	7.27±2.2	0.620	58.68±21.91	0.364	35.17±24.34	0.451
2-4	104 (26)	7.21±2.05		56.9±22.4		34.41±24.15	
5-8	104 (26)	7.43±2.2		58.12±22.89		37.74±21.63	
9	81 (20.3)	7.69±2.1		60.62±21.02		39.3±23.95	

Data are presented as mean ± standard deviation or frequency (%).

Table 2: Nurses' attitudes about pain management in emergency department based on Nurses' Attitude Survey (NAS) questionnaire

Item	Completely disagree	Disagree	Agree	Completely agree
Scheduled opioid administration is preferable to as-needed (PRN) dosing.	98(24.5)	128(32)	97(24.3)	77(19.3)
Discomfort should precede the next pain medication dose.	100(25)	143(35.8)	99(24.8)	58(14.5)
Regular evaluation of pain and medication efficacy is crucial for effective pain management.	100(25)	132(33)	97(24.3)	71(17.8)
Patients (or their family members) can request pain medication preemptively.	100(25)	124(31)	101(25.3)	75(18.8)
Fear of opioid use may deter patients (or family members) from requesting pain relief.	95(23.8)	140(35)	100(25)	65(16.3)
PRN opioid use may lead to clock-watching behaviors in patients.	112(28)	117(29.3)	100(25)	71(17.8)
Physician or nurse assessments of pain are more reliable than patient self-reports.	105(26.3)	122(30.5)	102(25.5)	71(17.8)
High doses of opioids can be tolerated by pain sufferers without sedation or respiratory depression.	95(23.8)	119(29.8)	108(27)	78(19.5)
Maintaining patients in a pain-free state is achievable.	107(26.8)	115(28.8)	103(25.8)	75(18.8)
If a patient experiences exhilaration, lower the pain medication dosage the next time.	92(23)	133(33.3)	112(28)	63(15.8)
Chronic pain patients should receive regular pain medication, regardless of pain presence.	97(24.3)	128(32)	103(25.8)	72(18)
Around-the-clock opioid use poses sedation and respiratory depression risks.	100(25)	140(35)	99(24.8)	61(15.3)
Severe chronic pain requires higher medication doses compared to acute pain.	117(29.3)	110(27.5)	97(24.3)	76(19)
Sustaining patients in a pain-free state is important.	111(27.8)	106(26.5)	106(26.5)	77(19.3)
Lack of pain expression doesn't necessarily indicate an absence of pain.	102(25.5)	115(28.8)	117(29.3)	66(16.5)
Cancer pain can be managed using anti-cancer medications, radiotherapy, and medications for pain.	115(28.8)	119(29.8)	100(25)	66(16.5)
Persistent pain post-medication warrants physician notification by the nurse.	111(27.8)	119(29.8)	94(23.5)	76(19)
Around-the-clock cancer pain medication doesn't necessarily lead to addiction.	108(27)	121(30.3)	105(26.3)	66(16.5)
Distraction and diversion can reduce pain perception.	100(25)	137(34.3)	92(23)	71(17.8)
Maintaining a constant analgesic level in the blood effectively controls pain.	111(27.8)	111(27.8)	108(27)	70(17.5)
Increased analgesic needs and physical symptoms may indicate addiction.	123(30.8)	98(24.5)	110(27.5)	69(17.3)
Cancer patients and families should have more say in analgesic scheduling.	92(23)	135(33.8)	104(26)	69(17.3)
Nurses may provide a more accurate pain assessment than patients.	102(25.5)	123(30.8)	108(27)	67(16.8)
For mild pain, cutaneous stimulation such as heat, massage, and ice are most beneficial.	112(28)	117(29.3)	104(26)	67(16.8)
When should a patient on prescription pain medication for cancer seek further medication?	131(32.8)	121(30.3)	92(23)	56(14)

Data are presented as number (%).

Table 3: Perceived barriers to pain management in emergency settings (N=400)

Item	Never 0%	Seldom <25%	Sometimes 25-50%	Often 51-75%	Always >75%
Nursing workload	99(24.8)	83(20.8)	82(20.5)	78(19.5)	58(14.5)
Lack of availability of pain assessment tools	93(23.3)	90(22.5)	76(19)	84(21)	57(14.3)
Lack of education/ familiarity with assessment tools	84(21)	104(26)	77(19.3)	79(19.8)	56(14)
Patient instability, e.g. unstable hemodynamic	107(26.8)	89(22.3)	75(18.8)	77(19.3)	52(13)
Patient unable to communicate (e.g. unconscious patient)	84(21)	98(24.5)	85(21.3)	84(21)	49(12.3)
Lack of protocols/guidelines for pain assessment	77(19.3)	97(24.3)	89(22.3)	82(20.5)	55(13.8)
Low priority of pain management by emergency team	73(18.3)	102(25.5)	82(20.5)	87(21.8)	56(14)
Lack of designated area for documentation	85(21.3)	91(22.8)	86(21.5)	79(19.8)	59(14.8)
Sedation interfering with pain management	84(21)	94(23.5)	77(19.3)	88(22)	57(14.3)
Poor documentation of pain assessment and management	73(18.3)	94(23.5)	81(20.3)	93(23.3)	59(14.8)
Poor communication of pain and its management	99(24.8)	87(21.8)	78(19.5)	73(18.3)	63(15.8)
Lack of protocol/ guidelines for pain management	91(22.8)	92(23)	80(20)	76(19)	61(15.3)
Insufficient analgesia dosage prescribed	85(21.3)	93(23.3)	75(18.8)	82(20.5)	65(16.3)
Strict regulation of opioids	74(18.5)	93(23.3)	81(20.3)	91(22.8)	61(15.3)
Lack of/ insufficient analgesic availability	79(19.8)	98(24.5)	84(21)	81(20.3)	58(14.5)
Fear of addiction to opioids	84(21)	89(22.3)	87(21.8)	85(21.3)	55(13.8)
Inadequate knowledge regarding pain management	89(22.3)	87(21.8)	89(22.3)	82(20.5)	53(13.3)
Overcrowding of the Emergency Department	81(20.3)	101(25.3)	80(20)	82(20.5)	56(14)
Patient or family urges avoidance of analgesics	93(23.3)	84(21)	86(21.5)	89(22.3)	48(12)
Language barriers	100(25)	84(21)	82(20.5)	86(21.5)	48(12)

Data are presented as number (%).