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Pain Assessment in the Emergency Department

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Aim: The aim of this integrative review was to synthesize studies that explore barriers to pain management in the Emergency Department.

Background: Pain remains one of the main reasons a person seeks help from the Emergency Department. However, patient's pain levels continue to be under-assessed and under-treated in Emergency Departments.

Design: Integrative Review

studies.

Data Sources: A systematic review of Medline, PubMed, CINAHL, and Google Scholar electronic databases was performed. The articles were searched using the keywords, and the inclusion/exclusion criteria. Eleven studies published between 2011 and 2021 were found.

Review Methods: Studies were appraised using the John Hopkins Nursing Evidence-Based Practice evaluation tool. A thematic analysis was conducted to explore specific themes within the

Results: Three themes were identified as barriers to pain management in the Emergency Department, 'nurse's workload', 'nurse's attitude', and 'lack of pain management education for the nurse'.

Conclusion: Pain continues to be one of the main complaints' patients present to the Emergency Department each year. The nurse can be a barrier or an enabler to effective pain management for the patient. For change to occur, improvement in pain management education for the nurse is required. Research regarding pain management in Emergency Departments based in the United States is limited. Research is needed to study the effectiveness of pain management and the possibility of nurse-initiated pain protocols in the United States.

Keywords: Pain management, Emergency Department, Emergency Room, Barriers, Outcomes

Pain Assessment in the Emergency Department

Pain remains one of the main reasons a person seeks help from the Emergency

Department (ED). According to the Center for Disease Control (CDC), up to 42% of ED visits, in the United States, occur due to pain (Rui, 2019). The under-treatment of pain, known as oligoanalgesia, continues to be an issue throughout Emergency Departments in the United States. A Pain and Emergency Medicine Initiative (PEMI) study showed that the ED patient experienced high levels of pain with low levels of relief. PEMI showed that only 60% of patients in pain received an analgesic in the ED, and 74% of patients went home in severe pain (Samcam, 2015). Motov (2012) states multiple factors that influenced oligoanalgesia in the ED, including lack of formal education in the ED on pain management, prejudice towards the use of opioids, inconsistent use of clinical guidelines for pain management, and underuse of pain protocols.

Effective pain management improves patients' medical outcomes, decreases hospital stay, patient satisfaction, and reduces mortality (Samcam, 2016). However, patient's pain levels continue to be under-assessed and under-treated throughout Emergency Departments. The International Association for the Study of Pain (IASP) found managing patients' pain unacceptable worldwide. IASP made a three-article declaration on patients' rights regarding pain treatment. This declaration states that pain management without discrimination is a right for all persons. People have a right to have their pain acknowledged. Further, they have a right to be informed on how the provider will manage their pain. Finally, all people in pain have a right to appropriate pain assessment and treatment by trained health care professionals (Cousins & Lynch, 2011). The aim of this integrative review was to identify and appraise studies related to pain management in the ED and to identify common barriers in providing effective pain management.

Background

Fifth Vital Sign

Poor pain management, through under-assessment and under-treatment, came to the forefront in the 1990s. At that time, experts urged providers to assess and treat their patient's pain more aggressively. In 1996, Dr. James Campbell addressed the American Pain Society, where he introduced the idea that pain should be assessed and documented as the patient's fifth vital sign. The addition of pain as another vital sign would allow for proper pain management. He equated the quality of care a patient receives to assessing and managing their pain (Scher et al., 2017). The concept of pain as the fifth vital sign was reinforced in 2001 by the Joint Commission. The Joint Commission attempted to address under-assessment of pain and under-treatment with the development of the Pain Standards of 2001, effective January 1, 2001. These standards enforced that documentation of pain was to occur for every patient resulting in pain as the unofficial fifth vital sign (Baker, 2017). The Joint Commission last revised the pain standards in 2018. This revision states that the patient's pain assessment and management, including safe opioid prescribing, is an organizational priority for the hospital (Joint Commission, 2017).

Pain scores, the fifth vital sign, are used as a quality measure that correlates to the patient's satisfaction (Morone & Weiner, 2013). Patient satisfaction, known as patients' perspectives of hospital care, is part of the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey. There are 29 questions on this survey that quantifies patient satisfaction with their care. Hospitals received 100% reimbursement for submitting their HCAHPS scores. With reimbursement tied to patients' perception of their pain management, providers felt the need to address patients' pain more aggressively. The Patient Affordable Care Act of 2010 took hospital and provider reimbursement further by tying the hospital's Medicare

reimbursement to their HCAHPS score; the higher the score, the more reimbursement (Centers for Medicare & Medicaid Services, 2021).

Opioid Crisis

Throughout the last 40 years, the use of opioids to manage pain has waxed and waned. In the 1980s, there was a concern about addiction to opioids for cancer patients and that they did not receive adequate pain management. This concern led to support for an increase in opioid use for oncology patients and those in chronic pain. In 1998, the Federal State Medical Boards created their model guidelines which recognized opioids as an appropriate treatment for chronic pain (Atkinson et al., 2019). These guidelines influenced the use of opioids in pain management.

The use of opioids to treat pain skyrocketed from 1999 to 2010 with a 400% increase in opioid prescriptions (Atkinson et al., 2019). United States (U.S.) opioid prescriptions peaked in 2012 at a rate of 81.3 opioid prescriptions per 100 persons, with Emergency Departments accounting for 12% of opioid prescriptions. By 2019, opioid prescriptions saw a 14-year low dropping to 46.7 opioid prescriptions per 100 persons. This drop in opioid prescription does not mean or imply that the opioid crisis is over (CDC, 2020). In 2019, nearly 50,000 people in the United States died from an opioid overdose, including prescriptions, heroin, and fentanyl. The costs of opioid prescription misuse cost the U.S. 78.5 billion dollars every year (National Institute on Drug Abuse, 2021). ED physicians are cognizant of the opioid crisis and limit the number of opioids they prescribe and instead prescribe non-opioid alternatives (Todd, 2017).

Nurse's Underestimating Pain Level

Pain is subjective and individualized to the person experiencing the pain. In 2018, the American Nurses Association (ANA) declared that people have a right to have their pain relieved. Their pain level is what they state and not what the nurse deems it (American Nurses

Association, 2018). The ED must have a pain assessment tool to measure the patient's pain level and one of the most common tools used is the numeric rating scale (NRS). The NRS is an eleven-point scale from 0-10 that designates a number to the intensity of the patient's pain. The patient selects a number to their pain level; no pain (0) to the worst pain they have ever experienced (10). The NRS allows the subjective feeling of pain to be quantified for the ED nurse to chart (Pace et al., 2020). This documentation of pain level is pivotal in the management of the patient's pain. Unfortunately, studies have shown that the ED nurse underestimates the patient's pain level, leading to ineffective pain management. Minimizing a patient's pain level is shown to be related to the nurse's attitude and knowledge of pain management (Giusti et al., 2018).

Methods

Search Strategy

An extensive literature search was conducted utilizing multiple databases, which consisted of Medline, PubMed, CINAHL, and Google Scholar. Articles were searched using the following terms: pain management, emergency department, emergency room, barriers, and outcomes. Inclusion criteria for studies included: (1) articles written in English; (2) persons over the age of 18; (3) articles published between 2011 and 2021. Exclusion criteria included studies involving the pediatric population.

Search Outcome

The database search produced 172 articles that contained the stated keywords. Once duplications were removed, there were 125 articles to be evaluated. Ninety-five of these articles were excluded based on the title search and the inclusion and exclusion criteria. The 30 articles were narrowed to 11 after abstracts were read. These 11 articles were read and met all the

inclusion criteria. These articles included both qualitative and quantitative research studies regarding pain management in the ED (Figure 1 and Table 1).

Analysis

The integrated review utilized Whittemore and Knafl's (2005) five-step process for the framework of the integrated review. The first step was identifying a problem which then led to a literature search. A completed search led to data being evaluated and analyzed. The conclusion of the synthesis was then able to be presented (Whittemore, 2005). The John Hopkins Nursing Evidence-Based Practice (JHNEBP) is a tool used to evaluate the quality of data collected. The JHNEBP tool has a three-step process that consists of practice questions, evidence, and translation (PET) (Vera, 2018). The JHNEBP tool allows evidence from the literature to be evaluated and graded to determine the quality of the evidence.

Results

Four main themes were identified through thematic analysis: 'nurse's workload', 'nurse's attitudes', 'lack of nurse-initiated pain protocols', and 'lack of pain management education for nurses". There was no one theme that was evident in all 11 articles.

Theme One - Nurse's workload

Five of the 11 studies discussed the nurse's workload as a barrier to effective pain management. In health care, the workload of the nurse is most often defined as nurse-to-patient ratio. Alghamdi (2016) defines the nurse's workload as the amount of time it takes the nurse to care directly and indirectly for the patient. There are two barriers that emerged from the literature for the nurse's workload: lack of time and lack of resources with an overcrowded ED (Bennetts et al., 2011; Kahsay & Pitkajarvi, 2019; Pretorius et al., 2015; Shaban et al., 2012).

A mixed-method study by Shaban et al. (2012) showed that the nurse's lack of time was the main barrier to effective pain management for the patient. The nurses reported they did not have time to manage the patient's pain while completing patient assessments and chart audits. The results in a qualitative study by Bennetts et al. (2011), concluded the nurse lacks time to adequately address a patient's pain in the ED. Forty-seven nurses from six hospitals completed interviews with open-ended questions to determine barriers to implementing best-practice pain management. The results from the study revealed the nurse's lack of time was the most significant barrier to effective pain management. In a quantitative web-based survey study by Pretorius et al. (2015), 81 percent of the nurses reported that they lacked the time to correctly assess, document, and manage a patient's pain. Nurses with less than five years of ED experience and between the ages of 20 and 35 years unanimously reported a lack of time as a barrier to effective pain management. Eighty-eight percent of nurses with six to ten years of ED experience and between 36 and 50 years old said lack of time was a barrier to effective pain management for the patient.

An overcrowded ED can potentially cause the nurse-to-patient ratio to increase unless there are adequate resources to staff the ED. In a study by Kahsay and Pitkajarvi (2019), 56% of the nurses perceived overcrowding of the ED as a barrier, to effective pain management, over 50% of the time. Nurses reported in both Bennetts et al. (2011) and Shabab et al. (2012) studies the lack of resources (staff) with the high volume of patients in the ED caused a barrier to effective pain management. The nurses indicated that it was difficult to maintain best practice with limited resources in an ED that was over capacity with patient volume. Shaban et al. (2012) reported that it is difficult to maintain the morale of the staff when turnover is high and resources are limited.

A significant barrier identified by the Pretorius et al. (2015) was the management of caring for a high acuity patient and effectively managing another patient's pain. The higher acuity patient requires a greater amount of time from the nurse causing ineffective pain management for the lower acuity patient. Without adequate resources to care for the higher acuity patients, pain management will remain inadequate in the ED.

Theme Two - Lack of nurse-initiated pain protocols

Five of the 11 studies address the use of nurse-initiated pain protocols. Varndell et al. (2020) defined nurse-initiated pain protocol as a vital strategy to initiating pain management for the ED patient. These protocols allow the nurse to use clinical judgement to independently initiate pain management prior to the patient seeing the ED physician. Giusti et al. (2018) reported that when a nurse-initiated pain protocol is in place and utilized, there is a reduction in oligoanalgesia, and more effective pain management occurs. A systematic review by Varndell et al. (2020) conducted in Australia, showed nurse-initiated pain protocols were effective, safe, and appropriate for effective pain management of the ED patients.

van Zanden et al. (2018) conducted a 10-day observational study that included 334 ED patients. The study's goal was to evaluate if pain protocols decrease pain scores and if a lower pain score would increase patient satisfaction. The study results showed that patients who received analgesics had a decrease in pain scores 75 to 90 minutes after receiving analgesics. As the patient pain score went down, patient satisfaction increased. These protocols enabled effective pain management but could become barriers if not utilized properly.

Bennetts et al. (2012) noted patient-related barriers to pain protocols. These barriers included language barriers, altered mental status, and patient belief systems. Also, patients delay pain management until seen by the physician wanting the physician to see them in pain. Vuille et

al. (2017) identified that nurse-initiated pain protocols have three parts; pain assessment when the patient quantifies pain severity on a numerical rating scale (NRS), initiating or not initiating pain protocol, and assessing pain score to determine protocol outcome. The study confirms previous research showing that nurses cannot easily suspend their judgment when documenting a patient's pain score (Giusti et al., 2018; Kahsay, & Pitkajarvi, 2019).

Theme Three – Nurse's attitude

Research has shown a disparity in patient's reported pain score and the pain score documented by the nurse (Giusti et al., 2018; Kahsay, & Pitkajarvi, 2019; Vuille et al., 2017). Giusti et al. (2018) concluded that 45 percent of the time, the nurse documented a pain score that is different from the patient's stated pain score. Ninety percent of documentation had the pain score lower than the patient's score. The nurse's attitude regarding the patient's pain score dramatically influenced the quality of care the patient received in the ED (Kahsay & Pitkajavri, 2019).

Giusti et al. (2018) reported that the age of the nurse and their experience can affect the documented patient pain score. The study confirmed that the older experienced ED nurse's documentation had the most significant discrepancy between the patient-reported pain score and nurse documented pain score. The longer a nurse has worked in the ED the more significant the difference in score. Whereas the younger, less experienced ED nurses tended to overestimate the pain level of the patient.

The ED patient will often have to quantify their subjective pain level with the NRS eleven-point scale. The patient's pain score is documented by the ED nurse in the patient's chart. Unfortunately, studies have shown that the ED nurse underestimates the patient's pain level, documenting lower pain scores than the patient reports. The nurses involved in the study by

Kahsay and Pitkajavri (2019) stated a lack of available pain assessment tools as a barrier to effective pain management for the patient. There is difficulty in measuring a person's subjective feeling of pain objectively. In a study by Sampson et al. (2019), nurses felt that pain management should not just be based solely on the patient's stated pain level but on a comprehensive pain assessment. This comprehensive pain assessment would include the clinical and behavioral symptoms of the patient, the nurse's judgement, and the patient's stated pain score.

There are different pain assessment tools available for the ED nurse to utilize when quantifying a patient's pain level. Three of these tools are the Verbal Numerical Rating Scale (VNRS), the Visual Analogue Scale, and the Faces Rating Scale. VNRS is the most common pain assessment tool used in hospitals and consists of the patient rating their pain from zero to ten, with zero being no pain and ten being the highest pain level. However, if a patient cannot verbalize their pain score, the nurses use the Visual Analogue Scale (VAS) or the Faces Rating Scale (FRS). The VAS has the patient place a mark on a pain line to indicate their pain from no pain to worst pain. FRS uses different faces to rate the patient's pain from no hurt to a crying face which indicates worst pain imaginable (Thong et al., 2018). Vuille et al. (2017) reported no consistency existed with how nurses executed the pain assessment tools. For example, with the VNRS one nurse stated ten would be the worst imaginable pain, while another nurse stated ten was the worst pain the patient had ever experienced. Although, the nurses' presentation of the pain scale was inconsistent, their judgement of a patient's pain score was consistent. The study concluded it is difficult for the ED nurse to exclude their opinion or judgement of how much pain a patient is experiencing when they documented a pain score. (Vuille et al., 2017).

Taylor et al. (2021) investigated the discordance between patient-reported pain management and actual pain management in the ED. The study showed that often the patient was

not aware of their pain management in the ED. The findings indicated the lack of communication with the patient inhibited the patient from being an active participant in their plan of care. The study verified that the lack of communication leads to an increase in patient dissatisfaction. A study by Fallon et al. (2016) confirmed that the lack of communication between the health care professional and the patient on the patient's pain management led to greater patient dissatisfaction.

Theme Four – Lack of pain management education for nurses

Critically ill patients are dependent on the ED nurse's critical thinking skills and nursing knowledge to detect and manage their pain. Pain management education is imperative for the ED, yet research shows pain management education for the ED nurse is inconsistent and infrequent (Varndell et al., 2019). The lack of pain management knowledge by the ED nurse and the low priority to pain management education for the ED nurse are barriers to adequate pain management for the ED patient.

Sampson et al. (2019) indicated that pain management was not a core component of the training and education of the ED nurse. The lack of education resulted in a limited pain management knowledge base for the nursing staff which allowed for variations in practice. The nurses recognized that pain management was essential but was not a priority like wait times and patient safety. Wait times and safety, not pain management, were items on the staff evaluation. The staff saw leadership not making pain management a priority and this filtered to their patient care. Kahsay and Pitkajarvi (2019) study showed a lack of knowledge regarding pain management, for nurses, began in nursing school with little to no focus on pain management throughout nursing courses.

Pretorius et al. (2015) study revealed barriers to the nurses' knowledge related to pain management. Eighty-five percent of the respondents believe pain should be the fifth vital. However, 53 percent did not feel it was the right of the patient to be pain-free from treatment, and 31 percent lacked knowledge on drug addiction. The study exposed those nurses 36 to 50 years old with greater than six years of ED experience were not current in their knowledge of pain management and alternative methods.

Discussion

Strengths and limitation of the reviewed studies

The inclusion of only 11 articles may be seen as a weakness and a strength. Limited research on pain management in the ED led this literature review to include the most relevant and current articles. The studies included for review were quantitative, qualitative, and observational and exploratory. Limitations include sample size, study design, and statistical rigor that gave generalizability of the results. A key limitation to this review was the location of the studies. Based on the findings of this integrative review current research on pain management in Emergency Departments is lacking especially in the United States. Only one study that was included was from the United States with five other studies from Australia and the remaining studies from other countries.

Synthesis of Findings Across Studies

The studies in this literature review confirm that pain is the main complaint of patients who present to the ED (Giusti et al., 2018; Pretorius et al., 2015). This review identifies barriers existing in Emergency Departments which prevent adequate pain management for the patient.

The findings suggest that decreasing the workload of the ED nurse as well as providing

education and resources to the nurse will improve the nurses attitude and allow for better patient pain management.

Most of the studies found a strong correlation between a nurse's lack of time and management of the patient's pain level, nurses felt they did not have the time to adequately manage their patient's pain. One third of the studies concluded when an Emergency Department is operating overcapacity or is understaffed, the nurses felt they did not have time to properly assess patients, administer pain medication, and monitor the patient post pain medication (Shaban et al., 2012; Bennetts et al., 2011; Pretorius et al., 2015). When nurses felt they had time and resources then patient's pain level was adequately managed.

A correlation exists between the nurse's knowledge level on pain management and the quality of care the patient receives (Kahsay and Pitkajarvi, 2019). The results of this review show inconsistency in pain management education for the ED nurse. Inconsistency results in the nurse relying on coworkers and their previous experience to manage the patient's pain instead of evidence-based knowledge (Sampson et al., 2020). The nurse's knowledge on pain management correlates to patient outcomes. The foundation of pain management education for the nurse begins in nursing school and continues in the ED. However, nursing schools are not emphasizing or reinforcing pain management at the level that is needed and Emergency Departments are not providing adequate training and re-education on pain management (Kahsay and Pitkajarvi, 2019; Sampson et al., 2020). Pain management as a core competency knowledge of the ED nurses, both experienced and inexperienced nurses, should be raised through education to improve pain management in the ED. Education on pain management, for the ED nurse, will improve the nurse's knowledge and attitude on patient pain.

Conclusion

Pain management of the patient is imperative to patient outcomes and is the responsibility of both the ED nurse and physician to manage. The patient who experiences inadequate patient pain management is at risk for increase hospital stays, increase patient anxiety, and increase cardiovascular, respiratory, and gastrointestinal complications (Kahsay & Pitkajarvi, 2019; Guisti et al., 2018; Fallon et al., 2016). Based on the results of this review the ED nurse is an integral part in the patient achieving optimal pain management. This review showed that research on pain management in the United States is lacking. Further high-quality research is needed on the effectiveness of pain management within Emergency Departments in the United States. Additionally, research that quantifies the nurse's workload as it correlates to managing patient's pain level is needed.

Reference

- Alghamdi, M. G. (2016). Nursing workload: A concept analysis. Journal of Nursing Management, 24(4), 449–457. https://doi.org/10.1111/jonm.12354
- American Nurses Association Ethics Advisory Board, (October 29, 2018) "ANA Position

 Statement: The Ethical Responsibility to Manage Pain and the Suffering It Causes" OJIN:

 The Online Journal of Issues in Nursing Vol. 24, No. 1.
- Atkinson, T. J., Perkins, T. L., & Scruggs, J. H. (2019, April 29). Where Did the War on Pain Go Wrong? Practical Pain Management. https://www.practicalpainmanagement.com/resource-centers/opioid-prescribing-monitoring/where-did-war-pain-go-wrong.
- Augustine, J. (2019, October 21). The Latest Emergency Department Utilization Numbers Are In. ACEP Now. https://www.acepnow.com/article/the-latest-emergency-department-utilization-numbers-are-in/.
- Baker, D. W. (2017). History of The Joint Commission's Pain Standards. JAMA, 317(11), 1117. https://doi.org/10.1001/jama.2017.0935
- Bennetts, S., Campbell-Brophy, E., Huckson, S., & Doherty, S. (2011). Pain management in Australian emergency departments: Current practice, enablers, barriers, and future directions. Emergency Medicine Australasia, 24(2), 136–143. https://doi.org/10.1111/j.1742-6723.2011.01499.x
- Centers for Disease Control and Prevention. (2020, December 7). U.S. Opioid Dispensing Rate

 Maps. Centers for Disease Control and Prevention.

 https://www.cdc.gov/drugoverdose/maps/rxratemaps.html#:~:text=After%20a%20steady%

 20increase%20in,81.3%20prescriptions%20per%20100%20persons.

Center for Medicare & Medicaid Services. (2021, July 6). HCAHPS: Patients' perspectives of Care Survey. https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/HospitalHCAHPS.

- Cousins, M. J., & Lynch, M. E. (2011). The declaration Montreal: Access to pain management is a fundamental human right. Pain, 152(12), 2673–2674. https://doi.org/10.1016/j.pain.2011.09.012
- Doherty, S., Knott, J., Bennetts, S., Jazayeri, M., & Huckson, S. (2012). National Project seeking to improve pain management in the emergency department setting: Findings from the NHMRC-nics national pain management initiative. Emergency Medicine Australasia, 25(2), 120–126. https://doi.org/10.1111/1742-6723.12022
- Giusti, G. D., Bambi, S., De Felippis, C., Reitano, B., Gili, A., & Lucchini, A. (2017). Is There a Way to Assess Pain Reliably in Emergency Department Patients? Journal of Emergency Nursing, 43(5), 391–392. https://doi.org/10.1016/j.jen.2017.06.011
- Giusti, G. D., Reitano, B., & Gili, A. (2018). Pain assessment in the Emergency Department.

 Correlation between pain rated by the patient and by the nurse. An observational study. Acta Biomedica Atenei Parmensis, 89(4-S), 64–70.

 https://doi.org/10.23750/abm.v89i4-S.7055
- Gurley, K., Onyeii, C., Burstein, J., & Grossman, S. (2020). Management pathway for emergency department patients in the setting of the opioid epidemic and emergency department overcrowding. Clinical and Experimental Emergency Medicine, 7(2), 131–135. https://doi.org/10.15441/ceem.19.067

Hatherley, C., Jennings, N., & Cross, R. (2016). Time to analgesia and pain score documentation best practice standards for the Emergency Department – A literature review. Australasian Emergency Nursing Journal, 19(1), 26–36. https://doi.org/10.1016/j.aenj.2015.11.001

- Johnson, M., Richardson, K., & Kridli, S. A.-O. (2014). Disparities in pain management in the Emergency Department: An Integrative Review. Open Journal of Nursing, 04(08), 608–619. https://doi.org/10.4236/ojn.2014.48064
- Kahsay, D. T., & Pitkäjärvi, M. (2019). Emergency nurses' knowledge, attitude and perceived barriers regarding pain management in resource-limited settings: Cross-sectional study.

 BMC Nursing, 18(1). https://doi.org/10.1186/s12912-019-0380-9
- Morone, N. E., & Weiner, D. K. (2013). Pain as the fifth vital sign: Exposing the vital need for pain education. Clinical Therapeutics, 35(11), 1728–1732.
 https://doi.org/10.1016/j.clinthera.2013.10.001
- Motov, S. M. (2012, June 26). Acute Pain Management in the ED. Physician's Weekly. https://www.physiciansweekly.com/pain-management-ed.
- Muscat, C., Fey, S., Lacan, M., Morvan, C., Belle, L., & Lesage, P. (2021). Observational,
 Retrospective Evaluation of a New Nurse-Initiated Emergency Department Pain
 Management Protocol. Pain Management Nursing.
 https://doi.org/10.1016/j.pmn.2020.12.013
- National Institute on Drug Abuse. (2021, July 1). Opioid Overdose Crisis. National Institute on Drug Abuse. https://www.drugabuse.gov/drug-topics/opioids/opioid-overdose-crisis.
- Nursing Resources: JHNEBP Model Resources. Welch Medical Library Guides. (2021, May 20). https://browse.welch.jhmi.edu/nursing_resources/jhnebp.

Pace, A. K., Bruceta, M., Donovan, J., Vaida, S. J., & Eckert, J. M. (2021). An objective pain score for chronic pain clinic patients. Pain Research and Management, 2021, 1–8. https://doi.org/10.1155/2021/6695741

- Pretorius, A., Searle, J., & Marshall, B. (2015). Barriers and enablers to emergency department nurses' management of patients' pain. Pain Management Nursing, 16(3), 372–379. https://doi.org/10.1016/j.pmn.2014.08.015
- Rui, P., & Schappert, S. M. (2019, May). Opioids Prescribed at Discharge or Given During Emergency ... National Center for Health Statistics. https://www.cdc.gov/nchs/data/databriefs/db338-h.pdf.
- Rummans, T. A., Burton, M. C., & Dawson, N. L. (2018). How Good Intentions Contributed to Bad Outcomes: The Opioid Crisis. Mayo Clinic Proceedings, 93(3), 344–350. https://doi.org/10.1016/j.mayocp.2017.12.020
- Samcam, I., & Papa, L. (2016). Acute Pain Management in the Emergency Department. Pain Management. https://doi.org/10.5772/62861
- Sampson, F. C., O'Cathain, A., & Goodacre, S. (2019). How can pain management in the Emergency Department be improved? findings from multiple case study analysis of pain management in three UK emergency departments. Emergency Medicine Journal, 37(2), 85–94. https://doi.org/10.1136/emermed-2019-208994
- Scher, C., Meador, L., Van Cleave, J. H., & Reid, M. C. (2018). Moving Beyond Pain as the Fifth Vital Sign and Patient Satisfaction Scores to Improve Pain Care in the 21st Century. Pain Management Nursing, 19(2), 125–129. https://doi.org/10.1016/j.pmn.2017.10.010
- Shaban, R. Z., Holzhauser, K., Gillespie, K., Huckson, S., & Bennetts, S. (2012). Characteristics of effective interventions supporting quality pain management in Australian emergency

departments: An exploratory study. Australasian Emergency Nursing Journal, 15(1), 23–30. https://doi.org/10.1016/j.aenj.2011.11.003

- Simon, B. T., Scallan, E. M., Carroll, G., & Steagall, P. V. (2017). The lack of analgesic use (oligoanalgesia) in small animal practice. Journal of Small Animal Practice, 58(10), 543–554.
- Taylor, D. M., Valentine, S., Majer, J., & Grant, N. (2020). Discordance between patient-reported and actual emergency department pain management. Emergency Medicine Australasia. https://doi.org/10.1111/1742-6723.13690
- The Joint Commission. (2017, August 29). R3 report issue 11 pain-assessment-and-management-standards-for-hospitals. The Joint Commission.

 https://www.jointcommission.org/standards/r3-report/r3-report-issue-11-pain-assessment-and-management-standards-for-hospitals/.
- Todd, K. H. (2017). A Review of Current and Emerging Approaches to Pain Management in the Emergency Department. Pain and Therapy, 6(2), 193–202. https://doi.org/10.1007/s40122-017-0090-5
- Thong, I. S., Jensen, M. P., Miró, J., & Tan, G. (2018). The validity of Pain intensity measures: What do the NRS, Vas, VRS, and FPS-R measure? Scandinavian Journal of Pain, 18(1), 99–107. https://doi.org/10.1515/sjpain-2018-0012
- van Zanden, J. E., Wagenaar, S., ter Maaten, J. M., ter Maaten, J. C., & Ligtenberg, J. J. (2018).

 Pain score, desire for pain treatment and effect on pain satisfaction in the emergency department: A prospective, observational study. BMC Emergency Medicine, 18(1).

 https://doi.org/10.1186/s12873-018-0189-y

Varndell, W., Fry, M., & Elliott, D. (2017). Exploring how nurses assess, monitor and manage acute pain for adult critically ill patients in the emergency department: protocol for a mixed-methods study. Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine, 25(1). https://doi.org/10.1186/s13049-017-0421-x

- Varndell, W., Fry, M., & Elliott, D. (2020). Pain assessment and interventions by nurses in the Emergency Department: A national survey. Journal of Clinical Nursing, 29(13-14), 2352–2362. https://doi.org/10.1111/jocn.15247
- Vera, D. (2021, July 28). 2022 EBP models and tools. 2022 EBP Models and Tools. Retrieved September 19, 2021, from https://www.hopkinsmedicine.org/evidence-based-practice/ijhn_2017_ebp.html.
- Vuille, M., Foerster, M., Foucault, E., & Hugli, O. (2017). Pain assessment by emergency nurses at Triage in the emergency department: A qualitative study. Journal of Clinical Nursing, 27(3-4), 669–676. https://doi.org/10.1111/jocn.13992
- Whittemore, R., & Knafl, K. (2005). The integrative review: updated methodology. Journal of Advanced Nursing, 52(5), 546–553. https://doi.org/10.1111/j.1365-2648.2005.03621.x

Figure 1

Prisma flow diagram

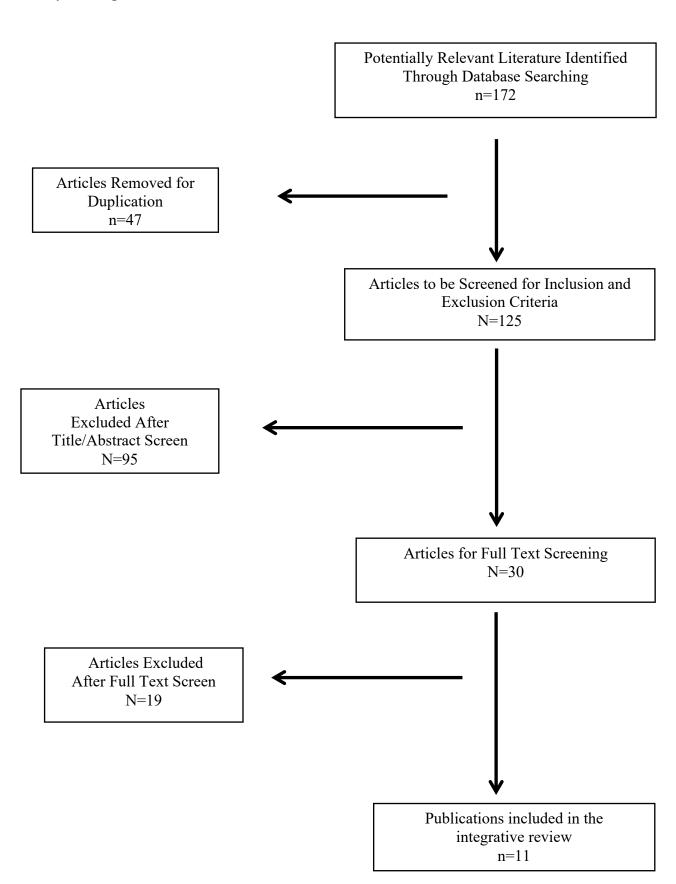


Table 1Summary of Articles

Title	Author	Year	Type of Study	DOI	Results	JHEBNP
Emergency nurses knowledge, attitude, and perceived barriers regarding pain Management in Resource-Limited Settings: cross-sectional study	Kahsay, D. T. Pitkäjärvi, M.		Cross-sectional quantitative nonexperimental	10.1186/s12912-019-0380-9	The emergency nurses' knowledge and attitude regarding pain management were poor. Lack of knowledge correlates to perceived pain management barriers The highest perceived barriers to adequate pain management in emergency departments were measured to be overcrowding of the emergency department (2.57 ± 1.25) , lack of protocols for pain assessment (2.45 ± 1.52) , nursing workload (2.44 ± 1.29) and lack of pain assessment tools (2.43 ± 1.43) . mean total score for the knowledge-attitude survey was 49.5% in which the maximum and the minimum scores ranged from 28.6 to 77.1%, with a standard deviation of 9.76. Nurses with a higher level of education (bachelor's degree) scored significantly higher knowledge score than the those at the diploma and certificate level.	L=3 Q= A
Barriers and enablers to emergency department nurses' management of patients' pain	Pretorius, A Searle, J. Marshall, B.	2015	Quantitative web- based survey	10.1016/j.pmn.2014.08.015	The lack of time with respondents tagged 20-35yrs of age with <5 years of experience (100% agreed this was a barrier) 36-50 years of age with 6-10 years' experience (88%). 33% said barrier was inability to monitor side effects of pain med Nurse barriers 67% lack of knowledge and 65% lack of pain assessment. Nurses would benefit from ongoing education on the usage of opioids. Nurses' attitude regarding patients' right	: L=3

Title	Author	Year	Type of Study	DOI	Results	JHEBNP
Characteristics of effective interventions supporting quality pain management in Australian emergency departments	Shaban, R. Z. Holzhauser, K. Gillespie, K. Huckson, S. Bennetts, S.	2012	Exploratory Study- Mixed method study	10.1016/j.aenj.2011.11.003	Data was collected in 2 phases Phase 1 interviews and focus groups and phase 2 document and policy analysis. Staff perception both a barrier and force for change. Audits allowed staff to see actual times and poor documentation. Time was reported most significant barrier to pain management. Education formed a major part of the intervention and the development of a working group of key stakeholders was critical in the successful implementation of change. Staff perceptions of patients' pain level and attitudes toward pain assessment and pain management were identified as barriers.	L=3 Q=A
Pain management in Australian emergency departments: Current practice, enablers, barriers and future directions	Bennetts, S. Campbell- Brophy, E. Huckson, S. Doherty, S.	2011	Qualitative Study	10.1111/j.17426723.2011.0 1499.x	5 focus groups with 2 in-depth interviews with ED staff. Staffing numbers and limited resources were indicated as major barrier to patient pain management. Effective and sustainable system change requires a strategy that is initiated within the ED leaders	L=3 Q=A/B
Pain score, desire for pain treatment and effect on pain satisfaction in the emergency department: a prospective, observational study	van Zanden, J. Wagenaar, S.	2018	Observational study- Qualitative	10.1186/s12873-018-0189-y	Initial pain scores were higher in patients who wanted analgesics (7.01) Patients had a 7.83 satisfaction for pain management. Patients who received analgesics were more satisfied. 8.06 vs 7.54. This study emphasizes the importance of questioning pain score and desire for analgesics to prevent incorrect conclusions of inadequate pain management, as described in previous studies.	

Title	Author	Year	Type of Study	DOI	Results	JHEBNP
How can pain management in the emergency department be improved? Findings from multiple case study analysis of pain management in three UK emergency departments	Sampson, F. C. O'Cathain, A Goodacre, S.	2019	Multi case study qualitative study	10.1136/emermed-2019- 208994	Pain management not aligned with core priorities. Staff did not think perceive pain score to be appropriate objective measure. Pain management not a priority, not core component of ED education, ED processes and structure not aligned with pain management, staff beliefs	L=3 Q=A/B
Pain assessment and interventions by nurses in the emergency department: A national survey	Varndell, W. Fry, M. Elliott, D.	2019	Cross-sectional exploratory study	10.1111/jocn.115247	ED nurses recognize importance of pain relief. Education is needed for assessing and caring for elderly, disabled, or vented patients with pain Need for pain assessment tools for critically ill patients. Data collected between 09/01/18-10/31/18. Delphi method using Calibrum used to develop survey. 6 sections of survey	L=3 Q=A/B
Pain assessment by emergency nurses at triage in the emergency department: A qualitative study	Vuille, M. Foerster, M. Foucault, E. Hugli, O.	2017	Qualitative	10.1111/jocn.13992	VNR is most frequent pain tool used Nurses cannot suspend their judgement causing discrepancies between patient self-reported pain and nurses' evaluation of patient pain. Semi-structured qualitative interviews. Study took place at Swiss ED. Nurses used different pain scale tools most frequent VNRS, VAS, & Faces Rating Scale	

Title	Author	Year	Type of Study	DOI	Results	JHEBNP
Correlation between	Giusti, G. D. Reitano, B. Gili, A.	2018	Cross-sectional observational Study	10.23750/abm.v89i4-S.7055	t Test showed avg between patient's and nurse's assessment of pain level significantly different (6.16 vs 5). 55.5 % of cases did nurse and patient pain scores correlate	