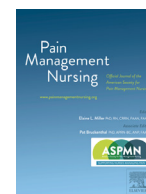




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Original Article

Emergency Nurse Perceptions of Pain and Opioids in the Emergency Department



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ABSTRACT

The opioid crisis is a national health emergency with immense morbidity, mortality, and socioeconomic cost. Emergency department (ED) pain management is tightly linked to the issue of opioid use disorder (OUD), because opioid exposure is necessary for development of OUD. Emergency nurses are on the frontlines of this complex problem, yet little, if any, attention has been paid to the role they play in the prevention and management of either pain or OUD in this unique and important setting. A framework that conceptualizes and optimizes emergency nurses as change agents in the opioid epidemic is urgently needed. While ED pain management and OUD prevention is dependent on the entire care team, this innovative study qualitatively characterizes emergency nurse perceptions of pain management, OUD prevention, and their potential role in each. Content analysis produced 14 categories that were clustered into two themes, “nurses influence ED pain management” and “adjustments in ED pain management”, and an overarching message that “pain management depends on the care team.” By generating a more comprehensive and nuanced understanding of the role played by emergency nurses, our findings provide essential insights into potential interventions and frameworks.

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The opioid crisis is a national health emergency with immense suffering, mortality, and costs (Centers for Disease Control & Prevention [CDC], 2012; Hansen, et al., 2011; Kuehn, 2017; Peterson et al., 2021; Soelberg et al., 2017). Despite underreporting, approximately 500,000 Americans have died of an opioid overdose in the last 20 years, and it is the leading cause of death in people under the age of 50 (CDC, 2020). In 2018, 41 people died every day from an overdose on prescription opioids (Wilson, 2020). Moreover, the opioid crisis is resurging amidst the COVID-19 pandemic and the resulting fragmentation in healthcare (Aslim & Mungan, 2020; D'Onofrio et al., 2020; Globber et al., 2020; Slavova et al., 2020).

Exposures to opioids due to acute pain management have been linked to long-term opioid use (CDC, 2020; Hoppe et al., 2015; Stumbo et al., 2017), and people with opioid use disorder (OUD) have cited an emergency department (ED) prescription as their

first exposure (Butler et al., 2016; Jones et al., 2013). Balancing adequate pain management for patients and the risk of OUD is crucial. Yet, this balance is difficult for emergency care providers, as they want to avoid harm but often have no established relationship with the patient seeking care. Emergency nurses are on the frontlines of this complex problem, and there is an opportunity to intervene in appropriate pain management, as many ED visits have a pain-related component; thus, these patients may be at risk for OUD.

Interactions with nurses and providers influence patients' experiences and health outcomes, including medication adherence and quality of life (Hausman, 2004; Vale et al., 2002). However, healthcare workers may not fully understand the impact of stressors and the environment on their own behavior (Harling et al., 2006; Howard & Chung, 2000), or that they should strive to optimize patient communication and experience. Contributing to this further, ED healthcare workers are constant witness to the reversal of opioid overdoses, complications of OUD such as infectious diseases and tissue infections, and impaired drivers involved in motor vehicle accidents, which may affect their perceptions and prescription

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of opioids. Additionally, studies report that emergency personnel and nurses have a tendency toward burnout and negative attitudes in relation to the opioid epidemic and naloxone (Haug et al., 2016; Punches et al., 2020). Moreover, patients report dissatisfaction with acute pain management and nursing communication in emergency care settings (Beel et al., 2000).

Little, if any, attention has been paid to the role nurses play in the prevention and management of OUD in the ED. A framework that conceptualizes and optimizes emergency nursing as a change agent in the opioid epidemic is urgently needed. Several possibilities for improving emergency care include identification of patients with OUD, management of patient and provider expectations, attenuation of stigma, patient/staff education, and OUD intervention implementation. Our objective was to describe nurse perceptions of pain management during the opioid crisis and how it impacts emergency care. The theoretical underpinnings for this study are rooted in the Framework for Decision Coach-Mediated Shared Decision Making (DC-SDM) (Stacey et al., 2008), which allows for the mutual influences of providers and decision coaches on the patient decision. The notion that multidirectional interaction between and among patients, emergency nurses, and providers within the ED environment profoundly impacts health outcomes is highly intuitive yet understudied.

Methods

Study Design

This study employed a qualitative exploratory approach to identify emergency nurses' perspectives related to pain management in the setting of the opioid epidemic, with the goal of defining the ideal role of emergency nurses in acute pain management and prevention of OUD. The study was approved by the local Institutional Review Board.

Setting & Participants

Nurses were recruited from the emergency department (ED) at a large, urban, academic medical center designated as a Level 1 Adult Trauma Center by the American College of Surgeons. Participants were recruited via convenience sampling with methods including email, word of mouth, and flyers. In order to be included, all have at least 12 months of ED experience at the medical center. Nurses were excluded if they were actively serving in an administrative, management, or other leadership role as we wanted to interview nurses who were currently patient-facing.

Data Collection

We conducted interviews focusing on knowledge, attitudes, beliefs, and perceptions of acute pain and OUD. Potential participants who were interested in the study contacted the first author and a date and time was chosen to accommodate the nurse's schedule. Participants met the interviewer in a quiet conference room in a building near the ED for convenience and privacy. Informed consent was obtained, and then participants completed a demographic questionnaire regarding their education, years of nursing practice, and emergency experience. One-on-one interviews with open-ended questions were conducted by the first author, a Ph.D.-prepared nurse with qualitative research and emergency care expertise, using a semi-structured interview guide to increase the likelihood that all participants received the same crucial questions regarding pain management, opioid use disorder, and emergency care during the interview. The interview guide was created with

input from the authors and experts in qualitative research. Each interview was digitally recorded, professionally transcribed, and verified for accuracy by a member of the research team. Participants were assigned identification numbers to maintain confidentiality during transcription and recordings were stored on a secured drive. A student research assistant collected field notes during the interviews, which typically lasted one hour. Survey data were managed in REDCap (Research Electronic Data Capture, Patridge & Bardyn, 2018) and qualitative data were managed in NVivo (Bazeley & Jackson, 2013).

Primary Data Analysis

Conventional content analysis was used to analyze the data, first independently, then together as a group. This method allowed the research team to examine the text of the participant's dialogue and create codes from the voice of the participants (Hsieh & Shannon, 2005). Four of the authors (B.P, K.B., S.S., and Q.W) read through the interview transcripts, coding the text while exploring nurse perceptions of pain. The team read through the first transcript independently and made notes in the right column regarding important statements. Next, the analysis team grouped important statements together and developed a first level of coding and removing redundancies. Then each remaining transcript was examined line-by-line and coded with the developed codes, allowing additional codes to emerge, and compared with previous transcripts. We considered data saturation to be achieved when no new themes emerged. The analysis team then critically examined categories of codes, clustering into meaningful domains, and further grouped to determine the themes that emerged from the data (Fig. 1). Credibility was enhanced through analyses with four researchers as well as adhering to the inclusion criteria of the study (Lincoln & Guba, 1985). The criteria of at least 12 months' ED experience and actively caring for patients at the bedside ensured the sample knew the phenomenon discussed. Confirmability occurred through the development of an audit trail and investigator triangulation (Lincoln & Guba, 1985).

Results

Twelve nurses participated in the individual interviews, none were turned away or lost to attrition. From the content analysis of the 12 transcripts, 14 categories were identified and clustered into four domains, and two themes, with one overarching message interpreted from the findings: "Pain management depends on the care team." The two themes emerging from the data were "nurses influence ED pain management" and "adjustments in ED pain management" (See Fig. 1).

Theme 1: Nurses Influence ED Pain Management

Participants in the interviews described varied responses to patient requests for pain management, leading the nurse to influence ED pain management as a mediator between the patient and provider. They described two domains of influencing pain management that may occur: "subjective versus objective assessments" and "responses to pain medication requests." Nurses stated that healthcare providers' assessments of pain are influenced by both subjective and objective evaluations of the patient, and these assessments could be influenced by external factors.

Domain 1: Subjective versus Objective Assessments

Participants detailed three categories in which their patient assessment can be influenced by the opioid crisis: 1) patient behaviors - separating pain and opioid misuse; 2) chief complaints; and

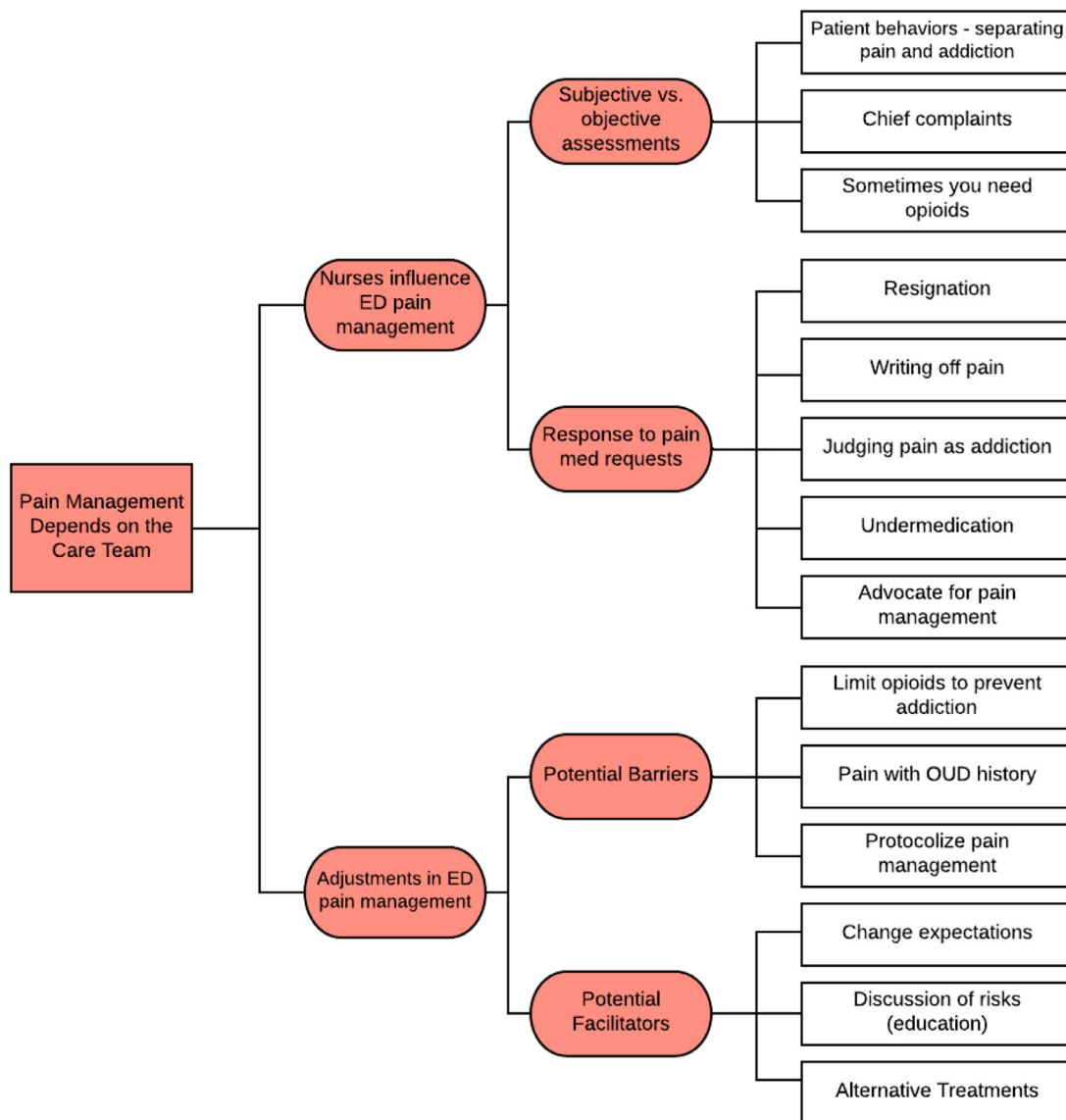


Figure 1. Thematic diagram of ED nurse perceptions of pain management during the opioid crisis.

3) some pain needs opioids. Nurse participants noted these categories of assessments as potentially being influenced by the opioid crisis and clouding their objective judgments when assessing patients in triage or at the bedside. Nurses described their suspicions of OUD and medication-seeking when patients become angry, defensive, or manipulative. One nurse stated, “They get very angry. Whatever you give them, they’ll rip up their scripts [sic]. Whatever [you give], they’ll leave them. They get loud. They get verbal. They storm out, or they won’t leave until they get a prescription.” Nurses noted they also had difficulty distinguishing between chronic pain and addiction behaviors in their assessments. Another nurse said, “The people that tend to get really angry are the ones that I’m already suspicious of seeking, I guess you would call it. So, I’m not heartbroken by them.” A second area influencing nursing assessments are the patient’s verbal report of their chief complaint. Nurses noted that they believe that some patients provide vague chief complaints to receive pain medication; “people say they have abdominal pain, because that’s an easy thing to say that you have that we can’t figure out.” Another aspect of nursing assessment that was discussed was screening for conditions (e.g., substance use disorder) beyond the chief complaint. Regarding

these risk assessments, one nurse stated, “we are...focused on what [the patient’s] chief complaint is and how we can dispo them to, you know, be a healthy person again. And I think that screening for stuff like that might be useful ... their addiction to meth.” Finally, nurses explained that there are some patients whose complaints of pain are related to particular medical issues that ‘just need opioids.’ For example, one nurse said, “Sometimes [opioids are] necessary, when your cancer patient [requests them and opioids are] the only comfort you can give them, and they have just a few months. So, you’re not making anything worse; you’re just helping; I’m all for it, to give anything they want.”

Domain 2: Response to Pain Management Requests

Another way in which the nurses described their potential influence on pain management was in their response to a patient’s initial or subsequent pain management request. The five categories emerging from the participants’ statements included: 1) resignation; 2) writing off pain; 3) judging pain as opioid use disorder; 4) undermedication; 5) advocate for pain management. Some nurses stated that when patients become demanding or portray “squeaky wheel” attributes, healthcare providers may resort to “resignation”

or simply giving in as a response in order to prevent a scene. One nurse said, “The people that act up, sometimes we’ll just give them a dose of something just to put a Band-Aid on it and quiet them down.” Another response to medication requests was “writing off pain” and ignoring the request for pain medication. As one nurse stated, “Sometimes I wonder if I have a little skewed vision of it. . . . They say they have a 10 out of 10 [pain level] . . . [but are] clearly not in pain... just sitting there playing on their phone. I do have a hard time believing them.” Nurses also stated that they may judge someone’s pain request simply as OUD when they request more frequent or higher doses of pain medication. For instance, one nurse stated: “I think some people with chronic pain . . . don’t know that they have substance addiction. They just know they have chronic pain when they’re not on the substance and they don’t recognize all the other factors of opioid absence.” Another unintentional response to pain medication requests is “undermedication,” and may occur due to a fear of contributing to the opioid crisis. As one nurse explained, “We under-medicate people in the fear of creating addiction, exposing them to something that then maybe they would like it a lot and their brain likes a lot and then, we feel responsible for – or we’re held responsible for – a lot of addiction.” Finally, nurses stated that they have the capacity to “advocate for pain management,” especially when a patient has a higher tolerance, even if that patient with pain also has an OUD. “I usually try to be an advocate for the patient if they don’t give them enough in my opinion. . . . the pendulum kind of swings now, I think, away from pills”

Theme 2: Adjustments in ED Pain Management

Nurses described pain management in the emergency department as changing over time as a result of the opioid crisis. Prior to the opioid crisis, emergency care providers would freely administer and prescribe opioid pain medication, almost in excess. One nurse said, “A concern of mine, for years, is how freely we handed out opioid prescriptions. . . . Just handed them out. And I often wondered, ‘There must be something I’m missing here. This just doesn’t seem right.’” Another nurse stated, “I think emergency departments help contribute to this behavior with addiction because . . . we’ll give you [opioids] every hour and then send you on your way. And then you’re coming back the next day. It’s like we’re feeding your addiction.”

The nurses offered six categories of barriers and facilitators to pain management in the ED: 1) limit opioids to prevent OUD; 2) pain with OUD history; 3) protocolize pain management; 4) change expectations; 5) discussion of risks (education); and 6) alternative treatments.

Domain 3: Potential Barriers to ED Pain Management

Nurses also appeared conflicted in determining what appropriate pain management should look like. Barriers nurses identified in pain management included limiting opioids to prevent OUD, protocolizing pain management, and pain with OUD history. Some nurses thought that pain management should start with over-the-counter pain relievers and alternative options, while others said prescribers undermedicate for fear of being held responsible for OUD. “I think there are times where people are in real pain and we’re giving them over-the-counter medication . . . and it’s not sufficient,” one nurse said. “And rather than expose them to an opiate, we just say, ‘Sorry.’” Now, nurses stated that they believed that emergency providers often ‘protocolize pain management’ without considering the individual needs of the patient. “I don’t know if times have changed,” one nurse said, “but, I find that a lot of times meds are . . . the secondary thing that you get rather than with the primary set of orders. . . . I don’t know if emergency [medicine]

has gone from treatment and testing...to testing to prove that we need treatment.” Finally, nurses described difficulty in managing the pain of persons with history of OUD, whether in or out of recovery. “Conflict is . . . they’re in pain, and [the pain medication is] not gonna touch them... for some people, we could give and give and give... we’re not gonna take that pain away... It’s hard to say, ‘Breathe through it,’ because they’re hurting.”

Domain 4: Potential Facilitators to ED Pain Management

Three potential facilitators to pain management discussed in the interviews were: 1) change expectations; 2) discussion of risks (education); and 3) alternative treatments. Nurses explained the need to re-educate patients and change their expectations for pain management in the ED. It is necessary, one nurse observed, to “re-teach all of these patients that we were giving all of these narcotics to in the . . . past [and] now [say], ‘No, we’re gonna go at it a different angle. There are other ways to treat the pain.’” Another nurse stated, “I think you can prevent [OUD] if you . . . educate the person and let them know that [OUD] is a potential side effect or problem associated with . . . over usage or . . . you could talk to patients and ask them how they have dealt in the past and what their expectations are; and especially if it’s chronic pain... Have they tried other avenues such as physical therapy.” Finally, regarding alternative treatments, another nurse stated, “I recently had a patient who was in a car accident and he had a femur fracture, and he was in a lot of pain...Nothing was helping, and I asked . . . ‘Can we use ketamine or something else?’ And . . . we ended up using ketamine, and that helped.”

Discussion

This innovative study offered a qualitative approach to investigating the perception and role of emergency nurses in pain management, OUD, and prevention interventions. While the phenomenon is vastly complex and much is unknown, our initial qualitative approach provided rich preliminary data for future investigation. The overarching theme from these emergency nurse perspectives was that “pain management depends on the care team.” Moreover, the two themes emerging from the data were “nurses influence ED pain management” and “adjustments in ED pain management.”

Nurses Influence ED Pain Management

While those suffering from OUD often indicate that their first exposure to opioids was from a legitimate ED prescription (Butler et al., 2016; Jones et al., 2013; Stumbo et al., 2017), it may not be possible to avoid opioid use for certain acute pain conditions (Chang et al., 2014; Tanabe & Buschmann, 1999; Todd et al., 2007). Since ED opioid prescriptions are typically prescribed for short time frames (Jeffery et al., 2018), they alone may not be enough to cause OUD. Complicating matters further, patients frequently report inadequate pain control for acute injuries in the ED (Beel et al., 2000; Tanabe & Buschmann, 1999; Todd et al., 2007). Unrelieved pain is also an epidemic with important health consequences (Blomqvist, 2003; Schwaller & Fitzgerald, 2014).

The nurses explained that there are varied responses to pain management in the ED, and this problem may be exacerbated due to the opioid crisis. This is crucial, as subjective assessments may poorly influence the quality of care received. Further, nurse reactions to negative behaviors of patients may negatively impact ED operations and future interactions with the patient. Standardizing approaches to pain management and open dialogue regarding benefits and risks of opioids can alleviate the stress of pain management requests from verbally aggressive patients as described by

the nurses. Moreover, assessing and advocating for adequate and alternative pain management is crucial (Duncan et al., 2019); thus, pain management in the ED is heavily influenced by nursing.

Adjustments in ED Pain Management

The emergency nurse participants offered their perspective on the ways in which pain management in the ED has evolved due to the opioid crisis. They said that prescribers, once much more lenient with pain control, now shy away from pain management for fear of contributing to OUD. In contrast, some nurses emphasized the need to advocate for pain control for patients, suggesting that pain management for persons with a history of OUD appears different than pain management for those without the same history. Moreover, pain management protocols for patients with OUD, or who are in recovery from OUD, could include alternative dosing or alternative pain management options such as low-dose ketamine in order to manage pain more effectively (Beaudoin et al., 2014; Karlow et al., 2018).

Pain Management Depends on the Care Team

EDs are a uniquely challenging practice setting. They are often chaotic, time-pressured, and focused on short-term solutions with imperfect information. Patients, meanwhile, are frequently coping with newly-identified health concerns and unfamiliar nurses and providers. Limited information, physical and/or emotional distress, lack of privacy, stigma, time pressure, lack of control, and the often emotionally unsupportive environments may combine to impair communication and cognition in this setting.

Nurses and providers can influence patient experiences and later health outcomes, including medication adherence. Thus, adequate pain management and open dialogue with patients during an acute pain episode may be another key aspect of the emergency care experience, as well as trauma recovery and return to normalcy. Nurses and providers are well-versed in the ED environment but may not fully understand the impact this environment has on themselves and/or their patients. Emergency nurses and providers are often operating under tremendous stress with limited patient information and little to no familiarity with that patient. As a result, nurses and providers may bring deficiencies in communication and cognition when responding to a patient's difficulties.

Implications for Nursing Practice

This research has generated a more comprehensive and nuanced understanding of the role of the emergency nurse in management of pain and combating the opioid epidemic. This is immensely valuable for: 1) identifying intervention targets; 2) developing and testing interventions to balance adequate pain management and limit OUD; 3) conducting research to develop tools to aid in shared decision-making; and 4) creating autonomy in emergency nursing practice to assist patients and providers in balancing pain management and risk for OUD. Implementation of interventions is a consistent barrier to creating change; thus, understanding emergency nurse considerations of pain management, OUD, and prevention will prove a valuable aid to implementation of future interventions. Further insight into perceptions of pain management, OUD, and prevention will inform future interventions to improve patient care while also combating stigma related to treating patients with OUD.

It is critical that nurses and providers discuss alternative treatment options for pain management with patients, such as non-opioid analgesics, physical therapy, and other complementary

strategies, as well as address risk of OUD and suggest other solutions for chronic pain (Smith et al., 2002; Tedesco et al., 2017). Reframing patient expectations for pain management from opioid-only options to complementary solutions will improve future understanding of the role of emergency care in acute pain management. However, it is also important to advocate for appropriate pain management early in an emergency care visit to allow for the recovery process to occur and to provide some comfort to the patient. Moreover, investigating innovative strategies in acute pain management for emergency care may lead to additional options for patients.

Limitations

The results of this study may not be transferable to similar settings, as interviews can be subjective and were conducted with nursing staff from one health system. Other health systems may have different patient populations and different levels of exposure to the opioid crisis. However, due to the prevalence of OUD, it is likely that emergency nurses and providers in other settings have had similar experiences with opioid exposure, opioid use disorder, and complaints of pain.

Conclusion

Pain management in the emergency department has evolved rapidly during the opioid crisis, and nurses are keenly aware of the relationship between pain therapy and OUD risk. While pain management is dependent on the entire care team, nurses influence this process acting as a mediator between patients and providers, and thus have a key role to play in preventing OUD. This study contributes to the knowledge, perceptions, and beliefs of emergency nurses surrounding pain management during the opioid crisis and underscores their impact in combating OUD. With this knowledge, we can tailor specific interventions and gain crucial insight in order to implement these interventions effectively, thus improving patient well-being while limiting negative attitudes toward these patients.

Conflict of Interest

None.

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