OPIOID MANAGEMENT NURSING GUIDELINE

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Selection of a research problem

Effective pain management is a healthcare priority and patient right (Joint Commission, 2010). The necessity for more aggressive pain therapies to minimize pain severity and the possibility of both short- and long-term repercussions of unrelieved pain is supported by advances in pain science (Inoue, K., & Tsuda, M. 2018; Pusch, D. 2021). Multimodal analgesia, which combines analgesics with varied pharmacodynamics to target several underlying mechanisms of pain, is gaining acceptance as a viable method of treating both acute and chronic (persistent) pain (Small, C., & Laycock, H. 2020; Card, E. B., 2021). As the complexity of analgesic therapy grows, priorities must be defined to strike a balance between aggressive pain treatment and steps to prevent or reduce side effects and to assure high-quality, safe care. Assessment and monitoring of patients are crucial components of care; nevertheless, these practices are not precisely defined in order to achieve best patient outcomes. Opioid analgesia continues to be the major pharmacologic intervention for pain management in hospitalized patients; but, like with any medicine, opioids can induce side effects. Sedation and respiratory depression that occur unintentionally are among the most dangerous. A study conducted in the United Kingdom put opioids second among the types of drugs contributing to adverse-event reporting among hospitalized patients, and sedation and respiratory depression were among the most often reported side effects (Oscanoa, T. J., 2017).

Nurses have a vital role in the treatment of patients with pain and opioid abuse. Nurses are accountable for pain assessment, administration of pain medicine, and evaluation and documentation of the medication's efficacy. As a result of their growing presence in primary care practices (Barnes et al., 2018), nurse practitioners in states with full and restricted practice write similar numbers of opioid prescriptions to patients as physicians and physician assistants (Ladd et al., 2019). Historically, nurses have served as leaders in establishing pain management recommendations for patients (Gordon et al., 2005; Elad, S., et al. 2020; Pasero, 2018). Therefore, nurses bring a unique viewpoint to the treatment of patients with pain, particularly those at risk for opioid abuse. Importantly, the majority of nurses provide direct patient care, and their unique perspective and contributions are required due to their professional socialization and model of care (e.g., biopsychosocial model/holistic model). However, the amount and scope of nurses' engagement in understanding and managing pain and opioid abuse are currently unknown. Consequently, the objective of this scoping review is to characterize nursing's contribution and influence on the literature addressing the nexus of pain and opioid abuse. This evaluation will also highlight literature gaps, cross-cutting themes, and policy initiatives to enhance the management of patients with pain and opioid abuse.

Systematic searching of the literature

According to Compton, P., & Blacher, S. (2020), The opioid addiction crisis exposes two chronic health issues, addiction and chronic pain, that have traditionally gotten relatively little attention in nursing curriculum. In an effort to give nursing programmes in the United States with guidance regarding the curriculum necessary to prepare students to care for patients and meaningfully assist in the opioid crisis, their article provides an outline of the curricular elements that must be incorporated. In particular, the condition of nursing education in pain and addiction was examined, followed by a discussion of the core knowledge required for nursing practice to handle the opioid problem. Following the description of practice competencies for generalist registered nurses and advanced practice nurses, policy strategies to combat the opioid crisis was provided in recognition of the role nurses play in policy formulation and implementation. Both addiction and chronic pain are sources of misery for patients; resolving the opioid addiction issue requires nurses to play a crucial role in decreasing the impact of these disorders on vulnerable populations.

According to Jungquist, C. R., et al. (2020), Their report provides the most recent data and expert consensus-based changes to the ASPMN 2011 guidelines that support interprofessional clinical decision-making for hospitalized individuals using opioid analgesics. A systematic literature review. A fourteen-member expert group was tasked with evaluating the scientific data published in peer-reviewed publications and amending the existing ASPMN 2011 standards. Members of the panel formed recommendations based on the quality of the evidence and gained consensus through discussion, reevaluation of evidence, and majority voting as appropriate. The American Society of Anesthesiologists evidence categories were utilized for rating and classifying the evidence's strength. Recommendations were evaluated critically by both ASPMN members and external reviewers. It was determined that the 2011 guidelines are still applicable to clinical practice; however, fresh evidence supports modification and more precise recommendations for electronic monitoring. The revised recommendations classify risk factors into three categories: patient-specific, treatment-related, and care environment. There are detailed suggestions for the usage of electronic monitoring. All hospitalized patients who receive opioids for acute pain are at risk for opioid-induced progressive drowsiness and respiratory depression, but certain individuals are at a higher risk and require heightened vigilance to prevent adverse outcomes. All patients must undergo a risk assessment. Adaptations to the plan of care and monitoring measures should be driven by repeated risk-based reassessments.

According to Van Cleave, J. H., et al. (2021), The nursing perspective on the care of patients with pain and opioid abuse is distinct. Their scoping review describes the contribution of nursing to the literature on the management of patients with pain and opioid misuse, creating data to guide clinical care. According

to the Preferred Reporting Items for Systematic Review and Meta-Analyses extension for Scoping Reviews guideline, the scoping review was conducted. Using combined key terms ("opioid usage," "pain," "nursing") in systematic searches of PubMed and CINAHL electronic databases, the snowball technique, and personal knowledge, 108 relevant publications, papers, and websites were located. Quantifying and describing nursing's contribution to the literature with a summative approach to content analysis. In the fields of research, clinical practice, policy, and education, registered nurses have made significant contributions. The greatest number of papers concerned research (54 out of 108, or 50%), while the smallest number concerned teaching (8%, or 8 out of 108). The findings paint a picture of the range of nurses' competence and the critical leadership they provide to impact the management of patients with pain and opioid abuse. This scoping study emphasizes the necessity of continuing support from key stakeholders, including training and interprofessional cooperation opportunities provided by the National Institutes of Health, to preserve nursing's commitment to high-quality pain and opioid misuse care for patients. In the end, all health care providers must collaborate to undertake rigorous research and develop evidence-based guidelines to drive policy initiatives and education campaigns to address the complicated co-occurrence of the epidemics of pain and opiate abuse.

According to Childs, E., et al. (2022) The Centers for Disease Control and Prevention (CDC) issued the Guideline for Prescribing Opioids for Chronic Pain to improve patient safety and pain management (CDC Guideline). Recognizing that issuing a guideline alone is insufficient for practice transformation, the CDC supported the Opioid Quality Improvement (QI) Collaborative, which consisted of 10 health care organisations representing over 120 practices across the United States. Using domains specified by the integrated Promoting Action on Research Implementation in Health Services (iPARIHS) implementation science framework, the research team discovered implementation success factors. Utilized were data from interviews, notes from check-in calls, and system-provided papers. Throughout the duration of the project, the researchers collected data through interviews, meeting minutes, and documents. The iPARIHS framework was utilized to identify implementation aspects relating to the setting, innovation (application of CDC Guideline recommendations), recipient (clinicians), and facilitation (QI team). The clinic's, the health systems, and the external context's contextual factors included staffing and leadership support, prior QI experience, and state laws. The innovation was characterized by its versatility and difficulties in operationalizing the measures. The features of the recipients included a conviction in the significance of the innovation but difficulties in implementing the programme. In addition, the staffing and time availability of the QI team, the ability to implement adjustments, and prior expertise with QI were facilitating factors that influenced divergent outcomes. As health care systems continue to implement the CDC Guideline, these insights can improve effective implementation efforts by defining common implementation obstacles and outlining solutions for preparing for and overcoming them.

According Voutilainen, A., et al. (2021), Registered nurses (RN) play a crucial role in postoperative pain treatment for patients. Consequently, it is essential for RNs to have enough knowledge and documentation skills regarding postoperative pain management. To create and assess a brief teaching intervention based on Finnish nursing practice guidelines for acute postoperative pain. This intervention aimed to enhance the understanding of pain management and postoperative recording abilities of registered nurses. The researchers conducted a randomized controlled study with pre-, post-, and retention testing. The approaches have been described utilizing the CONSORT criteria. Randomization was used to split the participants into intervention (26) and control (24) groups. In one of Finland's central hospitals, 32 surgical RNs completed the knowledge test and documentation audit framework. Changes in the RNs' knowledge of pain management and postoperative recording were not statistically significant. In the intervention group, the mean knowledge score increased from pre- to post-intervention, but there was no difference between the intervention and control groups on the retention test. The findings suggest that the intervention had no effect on the documentation abilities of registered nurses. A brief lecture-based educational intervention appears unsuccessful in enhancing the knowledge and documentation abilities of RNs about pain treatment.

The Purpose of the research

The purpose of this study is to evaluate nurses' knowledge and practice in dealing with opioids, as well as their guidelines in managing opioids, at the King Fahad Medical City Hospital in Riyadh, Saudi Arabia.

Formulation of the research question

1. What are the challenges faced by nurses in opioid management?

2. What are the best guidelines nurses follow in opioid management?

3. What is the nurse's knowledge and practices in dealing with opioids?

Formulation of the hypothesis

1. There is a statistically significant relationship between the challenges facing nursing and how to manage opioid.

2. There is a statistically significant relationship between the work experience of nurses and the of opioid management.

3. There is a statistically significant relationship between the age of the nurses and the proficiency in opioid management.

Operationalization

Research methodology involves the methods in a research paper to collect and arrange the data for further research. Among nurses at king Fahad medical city hospital in Riyadh, Saudi Arabia, the objective of the proposed research is to determine nursing guideline regarding opioid management. The study has assumed a survey of 167 participants (nurses). There were limited studies that focused on opioid management nursing guideline in Saudi Arabia. These studies have not focused nursing's contribution and influence on the literature addressing the nexus of pain and opioid abuse.

Development of a project plan or research design

Descriptive cross-sectional studies are studies that take a snapshot in time to assess a condition and any relevant contributing factors among a specified population. When looking at the prevalence and features of an illness in a community, cross-sectional research can be thought of as a "snapshot" taken at a specific period (Wang & Cheng, 2020).

The type of research that was conducted is a descriptive cross-sectional study, and its purpose is to determine nursing guideline regarding opioid management in king Fahad medical city hospital in Riyadh, Saudi Arabia.

Application of a sampling procedure

A population is defined as any well-defined class of people, events, or things about which a generalization is formed, whereas a sample is a subset of the population or a small group observed in a research study (Balakrishnan et al, 2017).

The study's target demographic was made up of (167) nurses from king Fahad medical city hospital in Riyadh, Saudi Arabia. Because of reputation and confidentiality concerns, all respondents desire to remain anonymous.

Selection of an appropriate methods

Ragab & Arisha (2018) describe the research methodology as the comprehensive procedures a researcher takes to initiate a research endeavor. Consequently, the goal of qualitative research is to gain a more complete knowledge of a study question from a more humanistic or idealistic perspective. However, the quantitative approach is the more trustworthy option because it relies on numbers and methods that can

be developed objectively and disseminated to other academics. In qualitative research, we seek to gain insight into how individuals think, feel, act, and relate to one another. It produces information that is not numeric in nature. Intervention studies that combine quantitative and qualitative data are becoming increasingly popular.

For the purpose and objectives of this study the researcher was applied quantitative method and the nature of the thesis requires choosing this method.

Access to the research site

The research carried out at king Fahad medical city hospital in Riyadh, Saudi Arabia. These hospital is ideal for obtaining our sample, according to our requirements.

Data collection

A. Secondary sources:

The collection of information has been implemented from several secondary resources such as published books and articles

B. Primary sources:

Whittemore (2005) identifies the questionnaire as a common instrument for observing data even though the researcher is geographically confined. The questionnaire acts as a translator from research goals to concrete questions and answers. Any of the features of a successful questionnaire are quickly classified, performed, tabulated and evaluated. A good questionnaire should be short, unmistakable and rational and sequential. Easier questions should precede more complicated ones. Since questionnaires contain first-person opinions and answers and are in writing, their authenticity is assured.

The study main aim is to determine nursing guideline regarding opioid management in king Fahad medical city hospital in Riyadh, Saudi Arabia. the questionnaire was employed to collect qualitative data.

Analysis of data

According to (Marshall & Rossman, 2014), "data analysis" is "the procedure for creating meaning from data by identifying patterns and drawing inferences." It's a creative and exciting process that's also been described as untidy, ambiguous, and time-consuming. Data science, in its broadest meaning, is the process of interpreting, analyzing, and theorizing data in order to draw conclusions about the relationships between different types of data. This process is not linear, however. Data analysis, it would seem, necessitates the

application of logic to the research process. In this regard, Akinyode & Khan (2018) claim that the use of deductive and inductive thinking in research is reflected in the analysis and interpretation of data.

In this study, the data from the questionnaire was analyzed by statistical analysis carried out with the SPSS program.

Interpretation of the results

1- *Gender:*

It is clear from the following table on the distribution of the study sample by gender that the proportion of males is 12%, and females 88%.
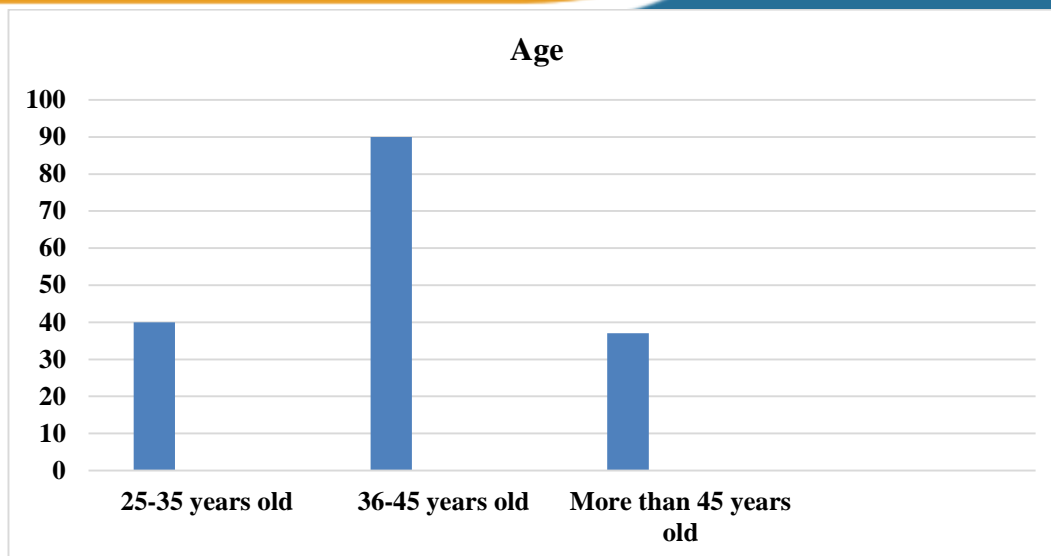
Gender		Frequency	Percent
Valid	Male	20	12.0
	Female	147	88.0
	Total	167	100.0

Gender
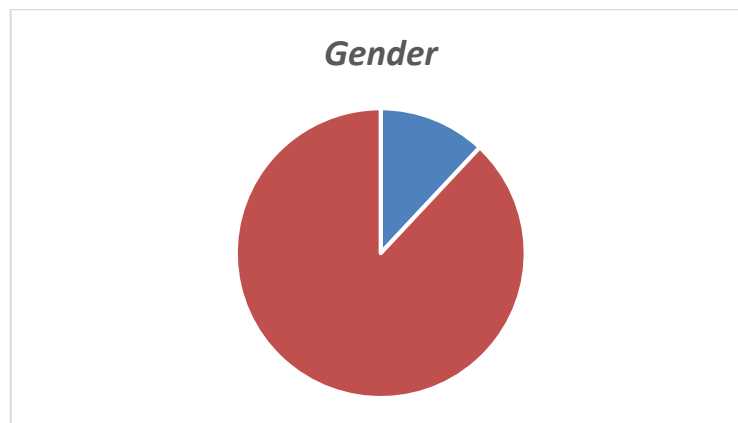
2- *Age:*

It is evident from the following table regarding the distribution of the study sample according to age, that the highest percentage is (36-45 years old) with 54%, followed by (25-35 years old) with a percentage of 24%, (More than 45 years old) with a percentage of 22%.

Age		Frequency	Percent
Valid	25-35 years old	40	24.0
	36-45 years old	90	54.0
	More than 45 years old	37	22.0
	Total	167	100.0

Age

3- Work Experience:

It is evident from the following table regarding the distribution of the study sample according to Work Experience, that the highest percentage is (More than 10 years) with 76%, followed by (6 to 10 years) with a percentage of 24%.

Work Experience		Frequency	Percent
Valid	6 to 10 years	40	24.0
	More than 10 years	127	76.0
	Total	167	100.0

> ➢ *There is a statistically significant relationship between the challenges facing nursing and how to manage opioid.*

It is clear from the table that there is a statistically significant between the challenges facing nursing and how to manage opioid, where the significance ratio was less than 0.05, which shows that challenges facing nursing helps to increase the efficiency of managing opioid in the king Fahad medical city hospital in Riyadh of Saudi Arabia.

Model Summary[b]				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.371[a]	.137	.129	.42902
a. Predictors: (Constant), the challenges facing nursing				
b. Dependent Variable: how to manage opioid				

ANOVAa					
Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	2.872	1	2.872	15.606	.000b
Residual	18.038	98	.184		
Total	20.910	99			
a. Dependent Variable: how to manage opioid					
b. Predictors: (Constant), the challenges facing nursing					

Coefficientsa					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.513	.386		6.503	.000
Organization Performance	.364	.092	.371	3.950	.000
a. Dependent Variable: how to manage opioid					

> ➤ *There is a statistically significant relationship between the work experience of nurses and the of opioid management.*

It is clear from the table that there is a statistically significant relationship between the work experience of nurses and the of opioid management, where the significance ratio was less than 0.05, as the increase in the work experience of nurses helps to increase the of opioid management in the king Fahad medical city hospital in Riyadh of Saudi Arabia.

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	113.437a	40	.000
Likelihood Ratio	102.925	40	.000
Linear-by-Linear Association	5.253	1	.022
N of Valid Cases	100		
a. 50 cells (92.6%) have expected count less than 5. The minimum expected count is .12.			

> ➤ *There is a statistically significant relationship between the age of the nurses and the proficiency in opioid management.*

It is also evident from the table that there is a statistically significant relationship between the age of the nurses and the proficiency in opioid management, where the significance ratio was less than 0.05, as it was found that the age of the nurses, the greater the proficiency in opioid management in the king Fahad

medical city hospital in Riyadh of Saudi Arabia.

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.069[a]	.005	-.005	.403
a. Predictors: (Constant), the proficiency in opioid management.				
b. Dependent Variable: age				

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.076	1	.076	.465	.497[b]
	Residual	15.924	98	.162		
	Total	16.000	99			
a. Dependent Variable: age						
b. Predictors: (Constant), the proficiency in opioid management.						

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.171	.546		7.644	.000
	the impact of information technology	-.091	.133	-.069	-.682	.497
a. Dependent Variable: age						

Nurse's practices and knowledge in dealing with opioids	Incorrect practice or knowledge		Correct but incomplete		Correct and complete	
	No.	%	No.	%	No	%
1. Assess and record (respiratory rate, heart rate, and blood pressure) at least every four hours after administering opioids.	11	6.6	100	59.9	56	33.5
2. Before administering medication, verify the kind and correctness of the calculated dosage, route, and administration time.	2	1.1	130	77.9	35	21
3. Assess and document the effect of sedation using a sedation scale at least every four hours, particularly at night.	50	29.9	100	59.9	17	10.2
4. Ensure the opioid order is complete, unambiguous, and signed by the treating physician	7	4.1	60	36	100	59.9
5. Mention three indications that arise on the patient when the dose of opioids is raised.	12	7.1	65	39	90	53.9
6. Can you administer any opioid medication to a patient with a history of substance abuse?	90	53.9	15	9	62	37.1
7. Can opioids and other sedatives be combined? If the patient has a history of difficulties during the administration of opioids, such as loss of consciousness or slowed breathing, are you able to deliver morphine or other opioids?	111	66.4	40	24	16	9.6
8. What is the frequency of monitoring and assessment of vital signs (such as blood pressure, respiration rate, and pulse) when administering an opioid?	70	41.9	50	30	47	28.1

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