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Nursing patients with acute chest pain: Practice guided by the Prince Edward Island conceptual model for nursing

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SUMMARY

Current research suggests that pain is a relatively common phenomenon with 60–90% of patients presenting to emergency departments reporting pain (e.g., chest pain, trauma, extremity fractures and migraine headache) that require treatment [Hogan, S.L., 2005. Patient satisfaction with pain management in the emergency department. Advanced Emergency Nursing Journal 27(4), 284–294]. This article explores the use of conceptual theoretical empirical (C-T-E) framework to guide a senior nursing student in a case study of patient with chest pain. The Middle Range Theory of Pain described by Good [Good, M., 1998. A middle-range theory of acute pain management: use in research. Nursing Outlook 46(3), 120–124] and Melzack's [Melzack, R., 1987. The short-form McGill pain questionnaire. Pain, 30, 191–197] short form McGill pain questionnaire were applied along with the Prince Edward Island conceptual model (PEICM) for nursing. Results indicate that the nursing student increased her ability to work in partnership, assess relevant and specific information, and identify a number of strategies to help the patient achieve pain control by using a complement of pharmacological and non-pharmacological interventions. Moreover, the C-T-E approach provided an organized and systematic theoretical approach for the nursing student to assist a patient in pain control.

Introduction

Pain, a complex, multidimensional phenomenon, originates from sensory stimuli, has obvious motivational-affective properties, demands attention, disrupts thought and behavior and results in activity aimed to stop the pain (Melzack, 1982). More recently, the definition of pain has been expanded to include it being subjective, multifaceted and influenced by many factors such as personal experience and culture (Bourbonnais et al., 2003). However, in order for the experience of pain to occur, it has been posited that a stimulus must be strong enough to exceed patients' normal pain thresholds (Dolan, 2000).

Current research suggests that pain is a relatively common phenomenon with 60–90% of patients presenting to emergency departments reporting pain (e.g., chest pain, trauma, extremity fractures and migraine headache) that require treatment (Hogan, 2005). Although common, pain and its accompanying symptomology are complex in nature. For example, chest pain can present as myocardial infarction, angina, pericarditis, or anxiety. Accordingly, pain assessment and management should be approached using a holistic, systematic and evidence based model (Bryant, 2007). Key physiological pain assessment factors include: location, type, intensity and duration as well as assessment of environmental, social and cultural aspects of pain (Bird, 2005).

As the research on pain has expanded, best practice standards have been established which suggest that both pharmaceutical and non-pharmaceutical measures should be used to control patients' pain symptoms (Gatlin and Schulmeister, 2007). In hospital settings, however, the use of traditional pharmaceutical measures are more common than non-pharmaceutical measures (e.g., patient repositioning, thermal measures, massage therapy, aromatherapy, and meditation).

Nursing students are challenged with the responsibility of helping to relieve patients' pain. As part of this process, students require pain assessment tools that address patients' personal experiences and environmental and social factors (e.g., culture, anxiety) that may impact this experience. While nursing students may develop a basic understanding of what constitutes pain (anything the patient says it is) in their training, students may feel ill equipped when it comes to implementing pain specific interventions. A better understanding of the assessment models designed to help guide nurses in decision making as it relates to pain symptomatology would assist students in identifying appropriate interventions and implementing best practice guidelines for pain management.

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Conceptual theoretical empirical (C-T-E) system, developed by Fawcett (2005), is one example of a framework that may help guide nursing students in their management of pain. C-T-E is made up of three key components: (a) a conceptual model to guide practice; (b) a middle range theory (MRT) to address the area of concern; and (c) an empirical indicator to collect specific data (Fawcett, 2005). The benefits of using C-T-E systems include reduced staff turnover, more rapid movement from novice to expert nurse, increased patient and family satisfaction, increased nursing job satisfaction, and considerable cost savings (Fawcett, 2005). This article uses a case study approach to apply the C-T-E system in a training environment. By exploring how a nursing student was able to translate C-T-E theory into practice, this article will demonstrate the efficacy of C-T-E training for pain management cases.

For the purpose of this case study, the Middle Range Theory of Pain: A Balance between analgesia and side effects was used in conjunction with the Prince Edward Island conceptual model (PEICM) of nursing. Mr. Wood (fictitious name), a 55 year old male presenting with chest pain in an emergency care setting was the focus case study for this article. Data pertaining to Mr. Wood's care and condition were collected using the short-form McGill pain questionnaire (SF-MPQ).

Conceptual theoretical empirical system based nursing practice

The C-T-E system can provide direction for nursing practice based on knowledge that is specific to the discipline. This framework guides nursing students in the identification of important data, the establishment of relationships between data, and the selection of appropriate clinical interventions (Fawcett, 2005). Raudonis and Acton (1997) suggest that the use of C-T-E system helps nursing students to better understand data and therefore guide appropriate interventions, to practice in a more purposeful and systemic manner resulting in better patient outcomes.

The Prince Edward Island conceptual model for nursing

PEICM for nursing: A nursing perspective of primary health care (Munro et al., 2000) is a reciprocal interaction worldview model in which human beings are viewed holistically. This model is congruent with the international move towards primary health care (PHC). While other nursing models have incorporated PHC as a component of their respective frameworks, (i.e. Orem's self deficit model) it appears that the PEICM is the only conceptual model of nursing with PHC as its underlying framework.

In the PEICM, person can be an individual, group or community; health is defined as a dynamic process which incorporates both wellness and illness and is influenced by several factors called the determinants of health; the environment incorporates both internal and external environment and is affected by a combination of the determinants of health (Advisory Committee of Population Health, 1994). The PEICM discusses the five principles of PHC (accessibility, public participation, wellness promotion and illness prevention, intersectoral collaboration, appropriate technology) that guide nursing care. The goal of nursing is to work in partnership with the patient to promote wellness and prevent illness (Munro et al., 2000).

Nurse–patient partnership, one of the major concepts in the PEICM, extends our understanding of the principle of public participation (Munro et al., 2000). Partnership is the sharing of power between a health care professional and a patient (Courtney et al., 1996). The patient has the right and the duty to individually and collectively participate in their own health care. Three main concepts of partnership include: (a) the structure of relationship; (b) power sharing; and (c) negotiation. The nature of the relationship in the partnership model is that the professional actively facilitates the partner's participation in the relationship. There is an ongoing process of negotiation of goals, roles and responsibilities, and each person in the relationship respects individual and cultural differences (Courtney et al., 1996). Power sharing is the sharing of power between partners. Strickland and Strickland (1996) propose that instead of health care providers giving up power, passive patients should be encouraged to actively participate in their health care plan. Engaging patients in the delivery of health care is essential for active negotiation of treatment options. Using power sharing and negotiation, patients and health care providers are able to create mutually agreed upon treatment plans to help best meet the patient's individual needs.

Partnership in training

In a training environment, effective partnership requires the nursing student to move from the expert role in order to become a partner with the patient, play an equal role and establish goals together (Courtney et al., 1996) thereby enhancing patient empowerment (Gallant et al., 2002). Antecedents of partnership (Gallant et al., 2002) include: (a) partners must value each other as a worthwhile human being with unique needs, regardless of socioeconomic class; (b) partners must value cooperative and share responsibilities, power and accountability; (c) partners must be open and respectful towards what each member brings to a partnership; (d) the nursing student must believe in the patient's capabilities, and be willing to step down from the status associated with being a nursing student; and (e) the nursing student must believe in the patient's empowerment and encourage the patient's active participation in their health care plan and decision making.

The middle range theory of pain: a balance between analgesic and side effects

MRT's can assist practice by providing an understanding of a patient's behavior, suggesting interventions, and discussing possible explanations for the degree of effectiveness of the interventions (Peterson and Bredow, 2004). Since it appears no middle range theory has been published from the PEICM, Good's MRT of pain (The theory of balance between analgesic and side effects) is congruent with the philosophical underpinnings of the PEICM and therefore, was used for this case. This theory was developed from acute pain management guidelines published by the Agency for Health Care Policy and Research (Acute Pain Management Guideline Panel, 1992). Good's MRT of pain suggests that in order to achieve a balance of analgesia and medication side effects for patients experiencing acute pain nursing students need to administer potent pain medication and provide non-pharmacologic interventions (Good, 1998). Three propositions guide this theory: (1) multimodal interventions (administering potent medication along with pharmacologic or non-pharmacologic interventions); (2) attentive care (regular pain assessment and side effect assessment); and (3) patient participation (goal setting and patient teaching) (Good, 1998). These three elements are congruent with the PEICM because they both value and believe in patient participation, partnership, holistic approach, and recognize the determinants of health using a PHC lens.

Empirical indicator

Empirical indicators are tools or protocols to record observations, guide and evaluate nursing practice. It is a method to collect data which can be an actual instrument, experimental condition, or clinical procedure and should be congruent with a conceptual model and middle range theory (Fawcett, 2005). The SF-MPQ chosen as the empirical indicator for this case is an extension of the