บทความวิชาการ (Academic article)

บทบาทพยาบาลในการจัดการความปวดหลังผ่าตัด
Nurses Role in Postoperative Pain Management

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บทคัดย่อ

บทความนี้ เป็นการสำรวจบทความวิจัยที่ตีพิมพ์ระหว่างเดือนมกราคม พ.ศ.2544 ถึงมีนาคม พ.ศ. 2562 เกี่ยวกับความสำคัญของบทบาทของพยาบาลในการจัดการความปวด เพื่อให้สามารถประยุกต์ใช้ความรู้จากงานวิจัยที่ผ่านมาก่อนทั้งในประเทศและต่างประเทศ และสามารถนำไปใช้ในการดูแลผู้ป่วยหลังการผ่าตัด เพื่อลดอาการปวด ผลการศึกษา พบว่างานวิจัยส่วนใหญ่ที่มีอยู่นั้นเป็นภาพเชิงลบในการประเมินและจัดการความปวดในหอผู้ป่วยศัลยกรรม อย่างไรก็ตาม มีหลักฐานของการพัฒนาเชิงบวกในการปฏิบัติทางคลินิกที่มีศักยภาพในการปรับปรุงจากประสบการณ์ของผู้ป่วยในการจัดการความปวดหลังผ่าตัด

การศึกษาครั้งนี้ มีข้อเสนอแนะเกี่ยวกับบทบาทของพยาบาลในการจัดการความปวด บทบาทของพยาบาลในการจัดการความปวดในด้านการตอบสนองต่อความรู้สึกไม่สบายและความปวดของผู้ป่วย โดยมุ่งเน้นการดูแลผู้ป่วยเป็นศูนย์กลาง แต่พยาบาลมีความสามารถหลากหลายในการประเมิน ติดตามและดูแลรักษาโดยขึ้นอยู่กับเงื่อนไขของผู้ป่วย เพื่อบรรเทาอาการปวดตามวิธีที่เหมาะสม รวมทั้ง ทักษะการพยาบาลในการจัดการความปวดอาจช่วยให้พัฒนาแนวทางการพยาบาลช่วยผู้ป่วยที่มีความเจ็บปวดในบริบทอื่นๆ ได้

คำสำคัญ: บทบาทพยาบาล, การจัดการความเจ็บปวด, การดูแลหลังผ่าตัด

Abstract

This article explores articles published between January 2001 and March 2019 on the importance of nurses' role in pain management, in order to apply knowledge from previous researches both at domestic and global, and able to be used in the care of patients after surgery to reduce pain. Findings revealed that most of the available

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research paints a negative picture of pain assessment and management in the surgical ward. However, there is evidence of positive developments in clinical practice that have the potential to improve the patient's experience in the postoperative pain management.

This study recommended the nurses' role in pain management in response to discomfort and pain of patients by focusing on patient - centered care. There is various in their capacity to comprehensively assess, monitor and maintain depended on the patient's conditions apply to relieve pain as appropriate ways. As well as the nursing skill in pain management might be developing the nursing guideline approaches to help their patients in pain as the other context.

Keywords: Nurses role, Pain management, Postoperative care

Introduction

The importance of nurses' role in pain management, due to as a nurse is a person who works closest to the patient care, and one who usually has to intervention, management, and relief pain rise up to a real - situation. Such as surgery is a multi-dimension (International Association for the Study of Pain (IASP), 2008; Grinstein-Cohen, Sarid, Attar, Pilpel, & Elhayany, 2009). There are expected to be different ongoing issues for post-operative patients. With being recognized, it is crucial to understand and recognize that further pain can become more severe and acute, and can have further adverse effects (Zaslansky et al., 2019).

According to previous studies, related to goals for pain management, effective pain control reduces post-operative mobility; such as deep breathing and movement skills as comprising four post-operative mobility activities; 1) turning in bed, 2) sitting at the side of the bed, 3) standing, and 4) walking. Also included as beneficiary does rehabilitation facilities and early recovery from surgery (Heye, Foster, Bartlett, & Adkins, 2002; Al Samaraee, Rhind, Saleh, & Bhattacharya, 2010; Vijayan, 2011; Zaslansky et al., 2019). Whereas list very effective pain management outcomes comprise three aspects include 1) patient outcomes 2) unit outcomes and 3) hospital outcomes (Zaslansky et al., 2019). These include the patient, the patient's unit, and the hospital's success rates. Patient outcomes are measured by decreased complications and relieved suffering. Unit outcomes can be measures the quality improvements, the developments of multi-disciplinary collaboration, effective referral processes, and networks. These strategies are

as pain management counselling, refers to the development of pain management practices within the whole nursing team. Hospital outcomes include a decrease of re-admissions, reduced durations of hospital stays, reduced medical care costs, and improved patient satisfaction: IASP, 2008; Grinstein-Cohen et al., 2009; Tocher, Rodgers, Smith, Watt, & Dickson, 2012; Warrén-Stomberg, 2004; Wongswadiwat et al., 2008; Zaslansky et al., 2019).

Thus, this paper represents as an academic article to educate the importance of the definition of pain, pain in postoperative patients, as causes/mechanism of pain, the impact of pain with patients and hospitals, and evidence based nursing practice in postoperative pain management. It also addresses common misconceptions about pain and pain management. My as healthcare professionals, must do our part to provide the nurses with adequate pain management. One way is through education

Definition of pain

According to one definition, published in 1979, by the International Association for the study of pain (IASP) (Merskey, 1979), *"pain is defined as an unpleasant, sensory and emotional experience associated with actual or potential tissue damage".* It is additionally described in terms of such damage (p.250), and in 1968 by McCaffery, as "*pain is whatever the experiencing person says it is, and it exists whenever they say in does"* (p.17). According to Bonica published in 1987 about acute pain is defined as "*A constellation of unpleasant perceptual and emotional experiences and associated autonomic reflex responses and psychological and behavioral reactions*" (p.1). Moreover, pain is an individual, subjective experience and a multi-dimensional phenomenon, related to six dimensions which include; physiological, sensory, effectual, cognitive, behavioral, and socio-cultural dimensioned (McGuire, 1992). With the 11th edition of International Classification of Diseases defined pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage. Additionally, chronic pain is pain that persists or recurs for longer than 3 months; such as chronic primary pain, chronic widespread pain, chronic primary visceral pain, chronic primary musculoskeletal pain, chronic primary headache or orofacial pain, and complex regional pain syndrome (Treede et al., 2019).

Therefore, the patients underwent surgery and after surgery that who affects their felt always pain and suffering with pain. As reasons of previous studies mentions to the

definition of pain is subjective in nature due to actual or potential tissue damage effects between a complex physiological and psychological, however, its lead to chronic pain if uncontrolled. Also, the patient's pain is widely problematic in a surgical field.

Pain in postoperative patients, as causes/mechanism of pain, the impact of pain with patients and hospitals

Causes of Pain in postoperative

Pain in postoperative evoked by tissue damaging nerve stimulation produced by injuries or diseases, where signals are first sent to the brain as well as ascending nerve signal. This is a network in the brain also; this has response to send as descending nerve signal back to the periphery. Indeed, the process more closely to understand how the signal may be modulated during transmission (McGuire, 1992).

Mechanism of pain

The nociceptors stimulation as a nerve sensitive to tissue damage. This was creates impulse, which these receptors transmit information from the skin, muscles, joints, and viscera. The nociceptive stimulus may be intense mechanical, temperature, and chemical. Indeed, some nerves pathways of nociceptive impulses directly, while others the pathways impulses that affect our perception of pain, which may cause tissue damage (Melzack, 2005).

The impulses are two transmitted that are the terminal of myelinated A fibers, so that is thin myelinated as well as the transmitted a signal quickly. Damage to A fibers gives rise to the first localized sharp, immediate and often intense acute pain. Addition, the terminals of unmyelinated C fibers are relatively small fibers as nerves associated with slow, diffuse, and aching pain. A and C fibers are the principal nerves involved in pain and the tend to overlap in terms of sensitivity (McGuire, 1992).

Nerves pathway are stimulated the impulse is sent to the spinal cord, where “going” takes place area and further through pathway systems terminating in the brain. According to one theory of mechanism of pain, published in 1965, by Melzack and Wall propose that there is a neuronal mechanism in the dorsal horn of the spinal cord, which acts as a gating mechanism through which peripheral information passes. This Gate Control Theory has clarified the understanding of pain mechanisms and affected involve physiological and psychological dimensions of pain. First, the gate control theory has undergone revision since proposed in 1965, and after that this was developed to the

proposed neuromatrix theory of pain (Melzack, & Wall, 1988; Melzack, 1999). The neuromatrix theory of pain revealed that the pain as a multidimensional experience produced by influences not only from injury, inflammation or other tissue pathology but also from areas in the brain. At the same time, the brain processes a neural network determining the particular qualities of the pain experience and behaviour as well as the cognitive interpretation of the situation. While, the physiological of the response on the body such as the endocrine, autonomic, immune and endogenous opioid system is conceptualized as a type of chemical gating mechanism, the most effective in reducing pain (Melzack, & Wall, 1988; Carr & Goudas, 1999). Nevertheless, the post surgeries had the tissue damage, which this initiating nociceptive stimuli and acute pain experience occurs (Gottschalk & Smith, 2001). This mechanism increases the level of pain, and may produce continuous pain and sometimes develops a chronic condition (Svensson, Sjöström, & Haljamäe, 2000).

The impact of pain in postoperative

However, postoperative pain continues to be a clinical problem. Many patients expect and accept pain as a natural consequence of surgery and their expectations are often met (Grinstein-Cohen, et al., 2009; Tocher et al., 2012). Furthermore, the pathophysiological complications of unrelieved acute pain also include significant impairment of mobility, of pulmonary, bowel, and mental functions, of nutritional status and immunity. Further effects of unrelieved acute pain include increased morbidity and/or delayed recovery from illness or surgery as well as a diminished perception of overall health (Tocher et al., 2012; Heye et al., 2002; Al Samaraee et al., 2010).

According, several studies have reported that 25% to 50% of patients suffer from moderate to severe pain after surgical procedures (Carr, 2001; Boric et al., 2019), although the necessary tools to manage postoperative pain are available, including analgesics and guidelines (Boric et al., 2019). Most patients are unaware of the serious consequences of unrelieved pain, bought about by lack of information (Carr, 2001), inadequate pain assessment and documentation contributing ineffective pain control (Boric et al., 2019; Zaslansky et al., 2019).

Evidence based nursing practice for pain management in postoperative

This academic article was conducted using a term reviewed within the field of nursing practice for pain management in postoperative, and included articles published

between January 2001 and March 2019. Despite the most of evidence based nursing practice referred the nursing strategies of pain management and development of new standards for pain assessment as three periods comprises: pre-operative, intra-operative and postoperative pain that were emphasized measuring outcomes for patients' care. As these outcomes include quality of care, patient satisfaction, cost of treatment, and length of stay (Abrahamsen Grøndahl, 2012; Zaslansky et al., 2019). The results presented under three sub-heading includes: assessing patients, effective pain control, and pain management outcomes as the following:

Assessing patients

Assessment considered as the main practices, the person's pain was beginning of history taking and physical examination. Indeed, the assessment process that should take into account of appropriate tools to measure and evaluate consistently pain assessment in every period as preoperative, intraoperative and post-operative. Based on previous studies were recommended to assess pain levels during a resting and moving by using the PQRST Method for Pain Assessment (Provoking factors, Quality, Region and Radiation, Symptoms and Severity, and Timing and Treatment) (Richards, & Hubbert, 2007; Rejeh, Ahmadi, Mohammadi, Anoosheh, & Kazemnejad, 2008). Indeed, one of the most common memories for remembering the steps involved in pain assessment so that this approach by using typical questions asked by a healthcare provider as follows:

P (Provoking factors): What causes or precipitates the pain?, What makes the pain better?, What makes it worse?

Q (Quality): What is the nature or type of pain? How can it be described such as burning, stabbing, shooting and/or tingling?

R (Region and Radiation): Where is the pain located? Does the pain radiate or spread to other parts of the body?)

S (Symptoms and Severity): How severe is the pain? Does it interfere with activities or functioning? How severe is the pain on a scale of 1 - 10? Before using the scale with a particular patient the nurse should explain the significance of the numbers: 0 represents no pain, 1-3 mild pain, 4-6 moderate pain, 7-9 severe pain, and 10 means you are experiencing the worst pain imaginable. A variation of the scale often used by health professionals is to describe verbally the 0 to 10 rating and ask the patient to state the corresponding number.

T (Timing and Treatment): Is the pain constant or does it come and goes? Is the pain onset sudden or gradual? How often does the pain occur? How long does it last? Does it occur most often at a particular time of day e.g. morning? Is the pain associated with meals (before or after)?

Triage: Using the guidelines in the care of clients who have pain in a hospital, this is preliminary basis. That would result be rapid service and immediate response to treatment, which the practice can be performed as model on the patient care in hospitals that have pain. As a part of the communication between the nurses and physicians who performs the treatment.

Assessment of patients' pain by the nurse and medical staff is an important part of the surgical experience to ensure as to be appropriate interventions, these are used in order for recovery from surgery is as quick as possible. A pain assessment system to enhance the care of patients in pain is an important concern in the pain management; one within which a variety of health care professionals are involved. The healthcare professionals must understand the patient in pain and how to assess and manage the pain of their patients effectively within a cultural context (Chatchumni, Namvongprom, Eriksson, & Mazaheri, 2016). According to Samuels and Fetzer (2009) revealed that the patient's perception of the practice environment did not contribute to the pain management documentation, whereas clinical expertise explained 4.4% of the variance. The more clinically expert practitioners had relatively poorer documentation scores, while much effort is needed to improve nursing skill as the effectiveness of pain assessment in practice. Therefore, the preparing process for patients psychologically that is important performed to be instructed how to assess pain for the patient surgery, as reason of study as previously has been shown to shorten hospital stay and reduce the need for postoperative analgesia (Gottschalk, & Smith, 2001).

Effective pain control

According previous studies regarding the effectiveness of pain control by evidence-based practice (EBP) promotes safe, effective, and appropriate patient care. Supported by evidence-based guidelines, EBP includes compilations of the best available evidence on a given topic, readily accessible from the National Guideline Clearinghouse (Schug, Palmer, Scott, Halliwell, & Trinca, 2016). This is a public resource for evidence-based clinical practice guidelines; this provides interventions and practices considered, treatment/management include pre-operative pain assessment, pre- and post-operative

pain management, and pre-emptive analgesia, as systemic analgesic techniques: such as non-steroidal anti-inflammatory drugs (NSAIDs), paracetamol, opioids, and regional analgesic techniques such as epidural analgesia, patient-controlled epidural analgesia, and multi-modal analgesia. Of courses analgesia in special populations include ambulatory, geriatric, and obese patients. The postoperative pain management teams are an important to use the medication for specific pain treatment after surgery. The surgeries procedure are different kind of the surgeries such as urological operations, extracorporeal shock wave lithotripsy (ESWL), endoscopic procedures (e.g., transurethral, percutaneous, laparoscopic procedures), open surgery (e.g., minor surgery of the scrotum/penis, transvaginal surgery, perineal surgery, laparotomy surgeries), and peri-operative pain management in children as preoperative problems and postoperative analgesia (Schug et al., 2016).

However, nurse approaches to postoperative pain control are focused on the ways to address the inter-patient differences in response to pain and treatments and avoid periods of ineffective pain relief. This emphasized commonly used analgesics, paracetamol, non-steroidal anti-inflammatory drugs, opioids and a local anesthetic, and methods of administration (Samuels, & Fetzer, 2009; Suwanraj, 2010). In addition, the nurses' role of pain management activities include; giving information and advice, giving sufficient pain medication to reduce that pain and using appropriate nursing therapeutics. These therapeutics may include; active listening, acknowledging and valuing the individual's and/or family's perspectives, being empathetic, applying physical strategies such as breathing exercises, turning and positioning, wound supports, therapeutic hot and cold touches and massages and psychological and behavioral strategies. The latter may include cognitive behavioral strategies, stress management, patient and family education, self-management counseling groups, and other collaborations within the multi-disciplinary teams of experts (Grinstein-Cohen et al., 2009; Rejeh et al., 2008; Vijayan 2011).

My studies with colleges were published regarding the surgical nurses that impacted to activity for the quality of postoperative pain management as to be three elements comprises: engagement in a trustful nurse-patient relationship, availability of pain medication and nursing care when needed, and imbalance between meeting the patient's needs and completing routine nursing duties (Chatchumni, Namvongprom, Eriksson, & Mazaheri, 2018). From the results of our studies recommended nurse must contribute the guideline and policy of pain management.

Pain management outcomes

According to the United States, the Joint Commission on Accreditation of Health Care Organizations (JCAHO) (2015) describes outcome measures in effectiveness for quality of care as *"the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge* (p.264)". The Joint Commission sought to improve the quality of health care in the United States and Europe by ensuring that pain would be assessed and managed in all patients. The commission concluded that acute pain and chronic pain were major causes of patient dissatisfaction with the healthcare system, leading to slower recovery times, creating a burden for patients and their families, and increasing costs. These are pain management outcomes as a conformance to standards of care.

Nursing role in postoperative is considerations should be at the forefront in the surgical field, their acts ensure early detection, accurate pain assessment, and pain management and evaluation of pain during pre - postoperative care (Boric et al., 2019). As well as encompassing the professional area as nurses have typically defined 'quality' as a conformance to standards of care, and patients usually have an undefined quality of care. The nurse is one important attribute that lead to a judgment that care is of "good" or "poor" quality are effectiveness, efficiency, optimality, acceptability, legitimacy and equity (Poomnikom, 2000). Nevertheless, previous studies focus on pain management outcomes found that the barrier variants of improved in postoperative pain management to be achievement, include a lack of hospital financial resources and scarcity of educational programs designed to address these needs (Merskey, 1979; Rejeh, et al., 2008; Suwanraj, 2010). The mostly found that interdisciplinary teams are needed to implement multimodal methods to treat postoperative pain in ways that will provide patients with interventions that will improve their ability to cope with the physical and psychosocial aspects of postoperative pain. This is hindered by a lack of hospital financial resources, a lack of educational programs, a lack of knowledge regarding diverse pharmacological options, and lingering negative attitudes toward certain treatments, especially opioids (Rejeh, et al., 2008; Suwanraj, 2010).

While much effort is needed to improve the effectiveness of pain management education programs in practice, as previous studies have limited knowledge. Nevertheless, its depend on health care providers' ongoing process of education and acquiring new knowledge of the subject, as scientifically updated knowledge in research

related to brain cortex mapping that shows the complex integration of the mechanisms that initiate and maintain pain and improved multidisciplinary educational programs, if there implemented are provided within the workplace and are rarely offered during the formal education process of healthcare professionals (Rejeh et al., 2008; Suwanraj, 2010; Boric et al., 2019). Thus, the pain management outcomes might be achieved that purposes of reducing the incidence of severe pain and enhancing patients' satisfaction after surgery.

Summary

To conclude, nurses' role in postoperative pain management is the importance of quality outcomes leads to achievement of relieving patient in pain. According to evidence-based as previous studies that concerned pain management outcomes, which are a routine assessed in a nursing practice. However, the nursing interventions for the patients' pain in the pre-postoperative phase found that insufficiently used. This study would recommend to the act motivation of nurses role to improve the quality of their knowledge and skill in pain management, such as the contributions of the nursing protocols or guidelines in pain management, as well as need to be further evaluated. Additional, the health care system is developing protocol and policy in pain management include nurses should work according to evidence-based practice guidelines to provide the best possible treatment to the patient.

Furthermore, this article suggests to concern about the interaction between professional practice and the clinical context and adds to our understanding of the professional and practice based knowledge development. The knowledge gained from the future studies will provide a better understanding of the culture and ways of working of a specific group of nurses. This knowledge will help in improving nurses' knowledge and practice in pain management for a specialized group of nurses. Future, it is clarified that this research will develop relevant knowledge for the practices and profession of nursing, as reasons of the perspective of patients after surgery the question of effective pain management, relate to health and well-being.

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