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FACTORS RELATED TO POSTOPERATIVE PAIN MANAGEMENT AMONG NURSES IN JIGME DORJI WANGCHUCK NATIONAL REFERRAL HOSPITAL, THIMPHU, BHUTAN.

Dilli Darjee[1,2*], Supaporn Dungpaeng[1], and Khemaradee Masingboon[1]

[1]*Department of Adult Nursing, Faculty of Nursing, Burapha University, Chon Buri 20131, Thailand.*
[2]*Clinical nurse III, JDWNR Hospital, Thimphu, Bhutan.*

ABSTRACT

Ineffective pain management leads to complications of prolonged hospital stay, and delayed recovery. The objectives of this study were to describe knowledge of postoperative pain management, attitude towards postoperative pain management, self-efficacy in postoperative pain management, postoperative pain management, and to examine the relationships among knowledge, attitude, self-efficacy, and postoperative pain management among nurses in Jigme Dorji Wangchuck National Referral Hospital (JDWNRH), Thimphu, Bhutan. A descriptive correlational design was used with a total population of 115 nurses. Data were analyzed by descriptive and inferential statistics. The findings of the study revealed that nurses had inadequate knowledge of postoperative pain management/nurses had positive attitude towards postoperative pain management/high self-efficacy in postoperative pain management. In addition, there was a positive correlation among nurses' knowledge, attitude, self-efficacy, and postoperative pain management.

Therefore, it is recommended that nurses should get pain management training aiming to increase knowledge, attitude, and self-efficacy in postoperative pain management to improve nursing services.

Keywords: Nurses' knowledge, attitude, self-efficacy, and postoperative pain management.

*Corresponding author. E-mail address: d_ram2003@yahoo.com

INTRODUCTION

Postoperative pain management is one of the major clinical challenges confronting health-care professionals, especially nurses (Chung and Lui, 2003; Klopper et al., 2006). Postoperative pain is the normal, predicted physiological response to an adverse chemical, thermal, or mechanical stimulus associated with surgery. It is generally time-limited and is responsive to therapy (International Association for Study of Pain, 1994; Mackintosh, 2007). Inadequate management of postoperative pain has serious consequences including deep vein thrombosis, pneumonia and chronic pain syndrome (Hutchison, 2007; Smeltzer and Bare, 2004).

It is essential for nurses to have sound knowledge of postoperative pain management (Edwards et al., 2001). Knowledge deficits may cause nurses to have negative attitude towards pain management. They may feel reluctant to use narcotic analgesia for pain relief, or to administer the maximum dosage of opioid analgesic prescribed (Cohen, 1980; Lavies et al., 1992).

Lui et al. (2008) used a descriptive study to explore nurses' knowledge and attitudes regarding pain management in Hong Kong, with a sample of 233 nurses. They found that nurses had inadequate knowledge of pain management presented by mean score of 20. Basak (2010) conducted a descriptive study in Bangladesh with a sample of 100 nurses. He found that nurses had inadequate knowledge and negative attitude towards pain management presented by mean score of 59. Layman et al. (2006) used a descriptive study with sample of 52 nurses on one unit in a Midwest community hospital in the USA and found that nurses had positive attitude towards pain management presented by mean score of eight.

Numerous studies regarding pain management had been conducted in several other countries, especially in the west where there are highly developed technologies, advanced practices, and different cultures. However, the context in Bhutan is different from other countries, as such there is little research relating to pain management. Therefore, this study was conducted with an aim to describe nurses' knowledge, attitude, self-efficacy in postoperative pain management, postoperative pain management, and their relationships. Since the nurses spend more time with patients than any other healthcare professionals, they play a vital role in managing patients' postoperative pain. Therefore, The Theory of Reasoned Action was used as research framework to investigate the relationships among knowledge, attitude, and self-efficacy in postoperative pain management.

Definition of terms

Postoperative pain management referred to comprehensive intentional actions of nurses in relieving postoperative pain by both pharmacological and non-pharmacological approaches. Knowledge of postoperative pain management referred to nurses' theoretical and practical understanding of postoperative pain management. Attitude towards postoperative pain management referred to nurses' positive or negative feeling towards postoperative management. Self-efficacy in postoperative pain management referred to nurses' perception of their confidence in performing postoperative pain management effectively among postoperative patients.

RESEARCH METHODOLOGY

A descriptive correlation design was employed in this study to determine if the variables were associated with each other by explaining their relationship but not necessarily implying that this relationship was also a cause. This study was conducted at JDWNRH, Thimphu, Bhutan. The population of the study consisted of 115 nurses with diploma, and above level in nursing education working in JDWNRH, having one-year working experience in postoperative wards, and willing to participate in the study. The research instruments comprised four parts, i.e., a nurses' knowledge regarding postoperative pain management questionnaire (Ferrell and McCaffery, 2008), a nurses' attitude regarding postoperative pain management questionnaire (McMillan et al., 2000), nurses' self-efficacy in postoperative pain management questionnaire (Manworren, 2000),

and nurses' care activity regarding postoperative pain management questionnaire (Erniyati, 2002). All the instruments were modified and tested for validity and reliability using Cronbach alpha (0.84, 0.85, 0.80, and 1) respectively.

The ethical committee IRB, Faculty of Nursing, Burapha University and Chairperson Research Committee, Ministry of Health, Bhutan approved the proposal, and data were analyzed by descriptive and inferential statistics (Agersti and Finlay, 2000).

RESULTS

A total of 115 questionnaires were distributed, all the questionnaires were returned. It was found that 67% had diploma in nursing education, where 34.8% of nurses had 1-5 years experience in nursing, with few nurses (23) were trained in pain management knowledge. The mean score of nurses' knowledge was 16.86 (*S.D.* = 2.48) indicating inadequate knowledge of postoperative pain management. The mean score of nurses' attitude was 69.00 (*S.D.* = 5.19) indicating positive attitude towards postoperative pain management. The mean score of nurses' self-efficacy was 30. 46 (*S.D.* = 3.28) indicating nurses were fairly confident in postoperative pain management. The mean score of nurses' postoperative pain management was 28.40 (*S.D.* = 3.47) indicating that nurses performed more activities to manage postoperative pain.

Table 1. Range, mean, standard deviation of nurses' knowledge, attitude, self-efficacy, and postoperative pain management (N= 115).

Variables	Possible	Actual	M	S.D
Knowledge score	0 – 25	10 - 22	16.86	2.48
Attitude score	23 - 92	56 - 81	69.00	5.19
Self-efficacy score	10 - 40	21 - 39	30.46	3.28
Postoperative pain management score	0 - 32	20 – 32	28.40	3.47

The results of Pearson correlation coefficient showed a positive correlation between nurses' knowledge and postoperative pain management (r = 0.161), nurses' attitude and postoperative pain management (r = 0.274), and nurses' self-efficacy and postoperative pain management (r = 0.427).

Table 2. Pearson correlation coefficient between nurses' knowledge, attitude, self-efficacy and post-operative pain management.

Variables	Correlation coefficient (r)
Knowledge	0.161
Attitude	0.274
Self-efficacy	0.427

DISCUSSION

The finding of the study revealed that nurses had inadequate knowledge of postoperative pain management. Several factors could have contributed to the inadequate knowledge; firstly, pain management topic is still not included in the diploma level of nursing curriculum. Secondly, participants had difficulty in acquiring knowledge of pain management with the limited continuous nursing education program in pain management. Thirdly, the majority of nurses had their nursing education at level of diploma, while the level of nursing education influences the level of knowledge of postoperative pain management, which were consistent with previous studies of Basak (2010) in Bangladesh, Lui et al. (2008) in Hong Kong, and Phuong (2012) in Vietnam.

In relation to attitude, nurses had positive attitude towards postoperative pain management. The positive attitude towards postoperative pain management in the present study could be attributed to three categories, i.e., (1) the nurses believed that the performance of nursing interventions would lead to positive outcome such as the relief of

postoperative pain, (2) the nurses believed that their behavior will result in valued consequences and their important referents consider the behavior to be worthwhile, and (3) the nurses feel that they had support from the organization specially the physicians, ward norm and society, and other nurses in the management of postoperative pain. These were consistent with previous studies of Layman et al. (2006) in Midwest community hospital in the U.S.A, and Phoung (2012) in Vietnam

Concerning the confidence, nurses were fairly confident in postoperative pain management. Several factors could have contributed to nurses having confidence in postoperative pain management. Firstly, nurses could have gained confidence from past experiences. Secondly, nurses gained confidence seeing the role models. Thirdly, nurses gained confidence from verbal persuasion from the head nurse, nursing superintendent. Also, the level of credibility is directly influenced the effectiveness of verbal persuasion, where there is more credibility that will be a greater influence (Bandura, 1977), which was consistent with previous study of Chiang et al. (2006) in Taiwan.

Relating to performance, nurses performed more activities in postoperative pain management. The high level of postoperative pain management in the present study could be due to various causes, i.e., the nurses perceive that postoperative pain management is an important aspect of nursing and actions of nurses are responsible for the well-being of the patient for early recovery, discharge from the hospital, the nurses believed that the performance of nursing actions would lead to positive outcome such as the relief of postoperative pain, which were consistent with the studies of Phuong (2012) in Vietnam, and Basak (2010) in Bangladesh.

The findings of the study indicated that nurses' knowledge had a positive correlation with postoperative pain management, which were consistent with previous studies of Glajchen and Bookbinder (2001), and Ampomah (2009). The finding of the study indicated that nurses' attitude had a positive correlation with postoperative pain management. Attitude toward pain management is nurses' positive or negative feeling toward pain management influenced by personal beliefs, peer, ward norm, and society. The nurses believed that the performance of nursing interventions would lead to positive outcome such as the relief of postoperative pain. The nurses believed that their behavior will result in valued consequences and their important referents consider the behavior to be worthwhile. The finding was consistent with previous studies of Ampomah (2009).

The finding revealed that nurses' self-efficacy had a positive correlation with postoperative pain management. Nurses gained self-efficacy from past experience, verbal persuasion from their supervisors and other's performances (Bandura, 1977). The theory of Reasoned Action (Ajzen and Fishbein, 1980) states that individuals with high self-efficacy have ease in the performance of the behavior. People with increasing experience in a particular field have high self-efficacy in that area of work. The finding was consistent with previous study of Chiang et al. (2006) in Taiwan.

In conclusion, our results of the present study showed that nurses had inadequate knowledge, nurses had positive attitude, nurses were confident, and nurses performed more activities to manage postoperative pain. In addition, nurses' knowledge, attitude, self-efficacy had a positive correlation with postoperative pain management.

The findings of this study could offer several implications and recommendations, as follows: (1) nurses could evaluate themselves in the area of knowledge which affects their caring abilities, helps them to work with other health professionals, and improve nursing practices for better patient care; (2) nursing administrators could use the findings to request to policy makers for allocating budgets for training nurses regarding pain management in order to improve the quality of nursing care; (3) and the findings of the present study could be used as base line data for predictive and interventional study in future.

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