CHAPTER 1

INTRODUCTION

Background and Significance of the Study

Acute pain is a common problem encountered by hospitalized patients. Postoperative patients usually experience severe pain at first, then moderate pain with medication, later mild to moderate on the second day after surgery. Pain increases with ambulation (Good et al., 1999). Kuhn et al. (1990) stated that 40% of their patients experienced average pain intensity during their first 24 hours after surgery and still scored severe pain on the sixth postoperative day. Carr (1990) also reported that patients still experienced severe pain on their first postoperative day and the pain was perceived as greater with lack of postoperative information. Ninety one percent of postoperative oncology patients experienced pain during their first 24 hours (Paice, Mahon, & Fault-Callahan, 1991). The severity of pain experienced by these patients was 38.2% had mild pain, 29.4% had moderate pain, and 8.8% had severe pain. Seventy nine percent of in-patients reported experiencing a great amount of pain during the first 24 hours postoperative, resulting in interference with their well-being (Yates et al., 1998).

Pain assessment is the first task for nurses caring for patients experiencing pain. As pain is a complex, multidimensional phenomenon and is highly subjective to the experienced person, this makes assessment of pain difficult and a challenge for nurses. Verbalization of pain is a social interaction between patients and nurses, which requires a positive relationship between nurses and patients, and their family

members, for successful pain assessment (AHCPR, 1999). Various pain assessment tools are available to assist nurses in assessing their patients' pain. These tools are used to assess patients' initial pain and intensity of pain, and also the level of effect the pain has on their well-being. Some of the tools are the Brief Pain Inventory assessment tool, which focuses on pain during the past 24 hours; the Visual Analog Scale (VAS), Graphic Rating Scale (GRS), Simple Descriptor Scale (SDS) and Numerical Rating Scale (NRS) which are ongoing assessment tools for assessing pain intensity (McCaffery & Pasero, 1999). The McGill Pain Questionnaire (MPQ) is a multidimensional tool, which measures a sensory component, an affective component, and a description of patients' pain experience (Melzack & Katz, 1999).

Assessment of pain provides a basis for planning intervention. Effective treatment of pain depends on accurate pain assessment. Studies have shown that nurses' and patients' pain assessments are not consistent. Some nurses underestimate patients' pain, some over-assess mild pain, and some under-assess severe pain (Bondestam et al., 1987; Choiniere et al., 1990; Zalon, 1993). Inaccurate pain assessments are due to nurses' lack of knowledge about pain, lack of experience, (Allcock, 1996; Camp, 1988; Choiniere et al., 1990; Halfens, Evers, & Abu-Saad, 1990), and poor information gathering and recording about pain (Harrison, 1991). Patients' cultural background, socio-economic status, diagnosis (Allcock, 1996; Kitson, 1994), patient's reluctance to report pain, lack of medical knowledge (Harrison, 1991) and ability to report pain also influences pain assessment (Camp, 1988).

Accurate pain assessment using a pain assessment tool is still a difficult process. A pain assessment tool that is valid and reliable in one group of patients and

clinical setting might not be valid and reliable in a different group of patients or settings (Harrison, 1991). Different pain assessment tools provide different ratings of pain depending on patients' preference, range of scores of the rating scale, types of assessment tool, simplicity of the tool, types of pain, types of surgery and patients' age (Berthier et al., 1998; Breivik, Bjornsson & Skovlund, 2000; Carey et al. 1997; Carpenter & Brockopp, 1995; Kitson, 1994).

A simple and valid tool should be used to assess a patient's pain intensity and documented at regular intervals (American Pain Society Quality of Care Committee, 1995). Documentation of pain assessment is required for effective pain management, as this provides data that can be communicated to other health care professionals to change or adjust pain management for their patients (Camp, 1988). Nurses play an important role in the effectiveness of pain management, as they are the ones who assess the patient's pain and administer analgesics, therefore they need to keep a complete record of the patient's ongoing pain assessment.

The University Sains Malaysia Hospital (HUSM) is a teaching hospital with more than 700 beds and also a referral hospital for the state located on the east coast of Malaysia. In the year 2000, about 5841 operations were performed. Orthopedic cases were the highest at 20.6%, followed by gynecology 14.1%, and general surgery 13.5%. An average of 6 to 10 orthopedic operations were scheduled daily. This means that nurses in the acute orthopedic ward were nursing 6 to 10 patients experiencing acute postoperative pain daily.

In HUSM, nursing practice for postoperative patients did not include pain assessment as a priority of nursing care. The routine postoperative care for postoperative patients was observation of vital signs, that is blood pressure, pulse rate,

respiration rate, and temperature. These vital signs were observed and recorded in the clinical chart at the prescribed time, and documented in patients' postoperative notes. No formal, systematic method of pain assessment and documentation was used to assess patients' pain during the pain management or pain interventions. Nurses solely relied on patients' self-report of pain before giving analgesia. Although patients' self-report is the most reliable, studies have recommended the use of a formalized method of pain assessment (Closs, Briggs, & Everitt, 1999; Choiniere et al., 1990; Harrison, 1991; Stuppy, 1998;).

Some patients in the orthopedic ward were included in a research study by the Acute Pain Service (APS) team, which is a team of anesthesiologists providing pain treatment for postoperative patients using different modes of analgesics. The different modes of analgesics were the epidural infusion, intravenous infusion, subcutaneous, patient's controlled analgesia and patient's continuous epidural analgesia. Patients recruited into the APS team were transferred to a ward with one mode of analgesics and had their postoperative pain intensity assessed using a Numerical Rating Scale (NRS) of 0 to 4 and sedation score of 0 to 3 by nurses, and documented in a form provided by the team. Therefore, during the period of the conducted study, two types of service were given to postoperative patients in the orthopedic ward. The APS teams were providing pain treatment using different types of analgesics to their selected postoperative patients with a standard form for pain assessment and sedation score. Another group of postoperative patients were provided pain management using the traditional service with no formal or standardized tool to assess pain intensity but relying on patients complaints of pain to administer prescribed postoperative analgesics on a scheduled 4 or 6 hourly, and prn. The study to develop a Pain

Assessment Protocol was conducted on the group of patients who were receiving the traditional service of postoperative management with no formal or standardized tool to assess pain intensity.

As the traditional service relied on patients complaint of pain, some patients might not have been getting the prescribed postoperative pain if they did not voluntarily complain. The majority of the patients were from the Muslim Malay ethnic group that makes up 94.2 % of the population in Kelantan (Department of Statistics Malaysia, 2001). No research articles about pain in Muslim Malay patients were found, but from the researcher's experience, Muslim patients are not encouraged to express their suffering or pain but to endure it in silence due to their religious background, which could lead them to not voluntarily complain about their pain. Stoicism is valued in some cultures and is a characteristic among some Asians (Matassarin-Jacobs, 1997). Studies have found that sociocultural factors influence individual response to pain, which then leads to problems in communicating pain to the health care team for pain relief (Matassarin-Jacobs, 1997).

Patients receiving pain treatment from the APS team might have had lower pain intensity and experienced significantly less pain, as their pain was being assessed and monitored, compared with patients who received the traditional service of pain relief where patients might not voluntarily express their pain and thus might not receive the prescribed analgesics leading them to have high pain intensity and experience severe pain before asking for pain relief. Pain assessment is an important aspect of pain management, done to assess patients' pain intensity, to help nurses to take appropriate interventions to reduce pain, and to evaluate the effectiveness of administered analgesics.

A Pain Assessment Protocol that includes guidelines for assessing pain and a pain assessment tool is needed to help nurses in their pain assessment and to provide effective pain interventions to postoperative patients. To develop a Pain Assessment Protocol, an action research approach was used in this present study. This research method is considered appropriate for the development of a Pain Assessment Protocol, as it requires the researcher, the nursing staff, and patients to work together in the planning, implementation and evaluation of a Pain Assessment Protocol. The outcome from this research was planned to be a Pain Assessment Protocol that would appropriate and understood by nurses and patients for use in the HUSM setting.

Aim of the Study

The aim of the study was to develop a Pain Assessment Protocol (PAP) for nurses caring for patients experiencing acute postoperative pain in HUSM.

Objectives of the Study

The objectives of the study were:

1. To understand the practice of acute pain assessment in the orthopedic ward in HUSM before using the Pain Assessment Protocol.

2. To determine the effectiveness of the practice of acute pain assessment before using the Pain Assessment Protocol.

3. To develop a Pain Assessment Protocol for nurses caring for patients experiencing acute postoperative pain.

Research Questions

What are the structures and process of Pain Assessment Protocol?

1. What was the practice of acute pain assessment before using a Pain Assessment Protocol in the orthopedic wards in HUSM?

2. How effective was the practice of acute pain assessment before the use of a Pain Assessment Protocol?

3. How could nurses improve their acute pain assessment?

Framework

The methodological framework used in this study was action research and the theoretical framework was the pain concept and pain assessment. The cyclical process of action research (fact-finding, action and evaluation) with the aim of generating relevant solutions to practice problems applicable to the practice setting (Holter & Schwartz-Barcott, 1993; Webb, 1989) is an approach that can facilitate changes in practice. In the methodological framework of action research, the technical collaborative approach was used as the researcher had identified the problem of trying to improve the practice of pain assessment and had a specific method to improve pain assessment. Using the technical collaborative approach, the researcher gained the nurses interest in improving their practice and agreement to participate in the study (Holter & Schwartz-Barcott, 1993). The second framework was the concept acute pain and the physiological and behavioral responses. The action research and pain concept were use as a framework to develop a Pain Assessment Protocol.

Definition of Terms

Pain Assessment Protocol: is a set of written pain assessment tool, guideline and documentation for assessing pain in postoperative patients.

Patients: in this study were those who had undergone orthopedic surgery at University Sains Malaysia Hospital.

Acute pain: is pain experienced by postoperative patients after orthopedic surgery.

Benefit from the Study

The Pain Assessment Protocol developed from this study will be used as a guideline for nurses caring for patients experiencing acute postoperative pain in the orthopedic ward, and from this it is hoped that patients experiencing acute postoperative pain will get a proper and systematic pain assessment leading to effective pain management and have a better quality of care.

Limitation of the Study

Findings from this study, which used an action research approach to generate knowledge applicable to the practice setting where problems were identified, cannot be generalized to other settings. However, if the settings and contexts were similar to this setting, then the findings can be adapted to assists nurses to improve their pain assessment practice.