CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

This final chapter is presented in three parts as follows: summary of the study, summary of findings, and nursing implications and recommendations.

Summary of the study

This study aimed to develop a Pain Assessment Protocol for nurses caring for postoperative orthopedic patients experiencing acute pain using the action research approach. The study intended to identify the current practice of acute pain assessment in an orthopedic ward and its effectiveness in relation to pain management. The study was undertaken during December 2001 to February 2002 in the acute orthopedic ward, University Science Malaysia Hospital, Malaysia. The participants were five nurses and patients who met the inclusion criteria. Eleven patients were interviewed before the use of the Pain Assessment Protocol (PAP) and 14 patients were recruited during the implementation of the PAP.

The action research approach was divided into the reconnaissance phase, the planning phase (developing of PAP), the action and observation phases (using the PAP), and the reflection phase (reflecting the use of PAP and revising the plan for further implementation). During the study process data were collected using interviews and review of patients records and nurses' notes. Analysis of data was performed and core issues were extracted from the findings during the reflection.
phase. The initial outcome phase of the study was the development of a pain assessment tool followed by a written guideline that formed the PAP.

Summary of the findings

Four of the five nurses who participated in this study had more than five years of experience caring for postoperative patients and three out of five had a post-basic orthopedic course.

Practice before the use of PAP

The practice of acute pain assessment before the use of the PAP was that the routine postoperative care of patients included observation of the vital signs, assessing circulation to the affected part, administering of analgesics and providing emotional support. Three themes were identified regarding how nurses detected that postoperative patients were experiencing pain before the use of the PAP, and these were: 1) patient's verbal complaints, 2) asking patients about their pain, and 3) observing a patient's expression. The practice of nursing documentation about patient's pain in the nursing report was informal and there was no continuity of reports written about patients' pain and the nursing interventions implemented on the patients.

Effective of practice before use of PAP

Nurses found that the practice of pain assessment before the use of PAP was not effective due to no formal postoperative pain assessment. They had difficulties with their practice in knowing if the patient was really experiencing pain before the use of the PAP. The themes identified from this difficulty were: 1) different pain experience
among patients, 2) unpredictable pain, and 3) overestimation of pain by relatives. This led the nurses to the belief that having a system to assess and chart patients’ pain might help them in their care of postoperative patients.

**Improving practice of pain assessment using PAP**

To improve the practice of acute pain assessment, the PAP was developed. It was initially started by developing a one-page pain assessment tool with the Numerical Rating Scale (NRS) and Face Rating Scale (FRS) (see Fig.2, p.37). Two cycles of action research was conducted in improving pain assessment practice. During the implementation of the pain assessment in the first cycle, nurses found that some patients were confused with the FRS on the pain assessment tool and a change was done to the pain assessment tool (see Fig. 4, p.62). The themes identified after the use of the pain assessment tool for four weeks were, two positive themes: 1) ability to use the pain assessment tool, 2) use as a communicating tool; and two negative themes: 3) difficult to assess drowsy patients, and 4) frequency of pain assessment: how often and for how long should pain be assessed. The identification of the themes “difficult to assess drowsy patients” and “frequency of pain assessment: how often and for how long should pain be assessed” was used in the planning of guideline to standardized pain assessment and documentation. The pain assessment tool and the guideline developed during the two cycles of action research formed the Pain Assessment Protocol. The PAP was used for four weeks during the second cycle and the themes identified after the use of PAP were: 1) know when to assess and how much pain was relieved, 2) assess pain before giving an analgesic and decide on appropriate pain interventions, 3) have data to confirm patient’s pain when relatives
reported a patient having pain, and 4) documentation of pain assessment and management.

The outcomes from the use of the PAP were: 1) postoperative pain assessment was included in the routine postoperative care of patients, 2) PAP facilitated nurses to communicate more effectively with patients, doctors and relatives as nurses were assessing pain more frequently, using data to confirm relatives report of pain and providing data for doctors to review treatment when pain was not relieved, 3) PAP provided a documentation tool for nurses to document patient’s postoperative pain intensity, and the pain intervention provided.

**Nursing implications and recommendations**

The Pain Assessment Protocol was developed based from the data collected from five participating nurses and 14 participating patients. Generalization of the result could not be made as there might be difference in setting, policy, management style and participating nurses but the following nursing implication and recommendation can be used in similar setting.

**Nursing implications**

**Nursing practice**

1. The PAP changed the practice of providing routine care to postoperative patients to providing an individualized care as nurses were assessing pain more frequently and would change their interventions for pain according to patients need.
Thus, nurses can use the PAP to assess pain intensity and provide appropriate pain intervention in order to improve their quality of care for postoperative patients.

2. Using the PAP as an evaluation tool for nurses and doctors to evaluate pain management provided for postoperative patients.

3. Using the PAP as a communication tool for nurses to communicate with patients, doctors and relatives.

**Nursing education**

Continuing education on pain and pain management should be provided to nurses so as to keep them updated with new findings about pain and pain management and desensitize nurses from their experience caring for patients with the same condition.

**Recommendations**

The recommendations based on the findings from this study are:

1. The Pain Assessment Protocol that provides a standard written agreement on pain assessment and documentation meant that practices of documentation by nurses need to be changed and the PAP need to be included in the nursing care plan, therefore further research need to be conducted using the Pain Assessment Protocol involving more nurses, patients, nursing administrators and doctors.

2. Patients for elective surgery should be given preoperative teaching of assessing their pain using the Pain Assessment Tool and to make them familiar with the pain assessment tool which patients to communicate their pain after surgery more effectively.
3. The use of the Pain Assessment Protocol should be included in the orientation program for new nurses in the hospital. The nurses should be taught of how to use the pain assessment tool, what to document and when to assess pain.