PAIN MANAGEMENT IN SURGICAL PATIENTS

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# Table of Contents

Contents...........................................................................................................i

Abstract ........................................................................................................iii

Chapter I: Introduction

- Introduction.................................................................................................1
- Background and Significance.......................................................................2
- Problem Statement.......................................................................................4
- Purpose.........................................................................................................4
- Research Questions......................................................................................4
- Organizing Framework................................................................................5
- Definition of Terms.....................................................................................5
- Assumptions.................................................................................................6
- Limitations....................................................................................................7
- Summary.......................................................................................................7

Chapter II: Literature Review

- Introduction................................................................................................8
- Organization of Literature.........................................................................8
- Theoretical Framework...............................................................................9
- Satisfaction with Pain Control.................................................................10
- Patients Perspectives on Pain Control.....................................................19
- Nurses Perspectives on Pain Control.......................................................25
- Improvements in Pain Control.................................................................30
- Summary.....................................................................................................32

Chapter III: Methods and Procedures

- Problem Statement......................................................................................34
- Research Questions.....................................................................................35
- Population, Sample, and Setting..............................................................35
- Protection of Human Subjects................................................................35
- Procedures.................................................................................................36
Abstract

RESEARCH SUBJECT: Pain Management in Surgical Patients

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Acute post-operative pain is a major problem, which is not well addressed clinically with patients regularly reporting significant pain following surgery (Clark, 2006). The possible harmful effects of surgical pain include deep vein thrombosis, increase in myocardial oxygen consumption, respiratory infection, muscle spasms, increase post-operative stress, anxiety, fear, sleeplessness, and possible chronic pain. The purpose of this study is to (a) obtain data on surgical pain intensity and patient satisfaction, and (b) degree of pain relief. This is a replication of Chung and Lui’s (2003) study. The sample will include patients having surgery under general anesthesia. The surgical procedure will vary from general surgical procedures, Ear Nose and Throat procedures, and gynecology procedures. Patients will be asked to consent to the survey before having surgery, and will be asked to fill out a survey in ambulatory surgery before leaving for home. The American Pain Society questionnaire used to measure patient satisfaction with pain management. The findings will provide information how to increase post-operative pain relief in surgical patients.
Chapter I

Introduction

Pain is the instinctive cry at the onset of injury and disease. Pain gives warning that something is wrong within the body. Pain can be a cruel but a lifesaving guardian (Rangappa, 2008). Pain is the most common symptom reported in both the general public and the medical setting. Pain complaints account for more than forty percent of all symptoms related to outpatient visits or over one hundred million ambulatory encounters in the United States Alone each year (Kroenke, Krebs, Matthew, & Blair, 2009). Pain cost the United States over one hundred billion dollars each year in healthcare and lost productivity (Kroenke et al., 2009). Pain effects patients physically, emotionally and spiritually and may alter a persons life. The three most common types of pain are disease itself (48%), surgery (38%), and diagnostic/therapeutic procedure (13%) (Lui, So, & Fong, 2008).

The Joint Commission's 2001 pain management standards state that every patient has a right to have his or her pain assessed and treated (The Joint Commission, 2010). As a result of the Joint Commissions on Accreditation of Healthcare Organizations accreditation standards for 2001, pain management for hospitalized patients has become a top priority of healthcare facilities (Tasso & Behar-Horenstein, 2004). The Joint Commission (2010) states that “Each and Every patient has the right to the assessment
and management of pain and hospitals must develop policies and procedures which address the organizations expectations of pain management in support of their mission and philosophy of care.”

From primitive times man has sought the separation of pain from the advancing knife and to the surgeon pain was the barrier he was forced to penetrate before his terrible instrument became the healing knife (Rangappa, 2008). According to the Center for Disease Control (2010) forty six million inpatient surgical procedures were performed in the United States in 2006. Postoperative pain management is an essential care component in caring for surgical patients. Surgical pain management is complex because of variations in patients’ pain experiences, the intensity and expected duration of pain, the many types of analgesics, the experience of staff, and patient factors (MacLellan, 2004). Inadequate pain control, apart from being insensitive, may result in increased morbidity and mortality.

*Background and Significance*

Despite the increased knowledge of pain and pain treatment in recent years, research over the past twenty-five years demonstrates a high prevalence of pain in surgical patients (Bjolseth, Dihle & Helseth, 2006). Postoperative pain management is a major problem, which is not well addressed clinically, with patient’s regularly reporting significant pain following surgery (Clark & Schoenwald, 2006). Approximately eighty percent of adult patients in the United States experience acute pain after surgery, and of these forty percent have severe or extreme pain (Denny, Kastanias, Robinson, Sabo, & Snaith, 2009). Another study by Shang and Gan (2003), suggest that eighty percent of patients experience moderate to severe pain postoperatively. According to Chung, and
Lui (2003), “between forty seven percent and seventy five percent of all surgical patient experience significant postoperative pain and seventy five percent to one hundred percent experience moderate to severe postoperative pain; suggesting that pain control is far from ideal.” (p. 13)

Adequate management of postoperative pain has been difficult to establish owing to inadequate assessment, poor communication, and individual variability on the experience and presentation of pain. Postoperative monitoring of urine output, blood pressure, respirations, and temperature has been required for documentation, but monitoring of pain was not required until recent efforts were initiated to include pain as the fifth vital sign (Disnard, McNeill, Sherwood, and Starck, 2003). Pain is subjective and is what the patient says it is.

The concept of patient satisfaction with healthcare and healthcare providers is a complex phenomenon (Agosta, 2009). Poor quality of care can lead to customer dissatisfaction and lost business, therefore measures of patient satisfaction should be closely linked with measures of quality of care. Patient satisfaction is used by many agencies as an indicator of quality of care. Patients perceive quality in terms of staff responsiveness to their pain needs. Patients that are satisfied with care received are more likely to use the hospital in the future (Freeman, 2008). Patient satisfaction is rapidly evolving as an important consideration in postoperative pain management.

Inadequate postoperative pain relief can prolong recovery, precipitate or increase the duration of hospital stay, increase healthcare costs, and reduce patient satisfaction (Shang & Gan, 2003). The most common reason for inappropriate pain management is the failure of staff systematically to assess and evaluate pain and management it (Bjolseth et
For this reason nurses must be adequately prepared to undertake as active role in postoperative pain management. Several nursing research studies have found that nurses lack knowledge of pain and pain management, as well as lacking skills in pain assessment. Nurses have more contact with patients than any other member of the healthcare team, and the fact that they have the prime role in promoting comfort and pain relief, it is crucial that they are able to make accurate pain assessments (Rom, Rosen, Shir, and Sloman, 2005).

Statement of the Problem

Pain is a symptom that most patients experience; especially in the postoperative period. Acute post-operative pain is a major problem, which is not well addressed clinically with patients regularly reporting significant pain following surgery (Clark & Schoenwald, 2006). It is necessary to identify patient outcomes in terms of self-reports of pain severity and satisfaction. Inadequate postoperative pain control can lead to patient dissatisfaction as well as; deep vein thrombosis, increase in myocardial oxygen consumption, respiratory infection, muscle spasms, increase post-operative stress, anxiety, fear, sleeplessness, and possible chronic pain. More information is needed on patient satisfaction with health care providers’ response to patients’ reports of pain in the postoperative period.

Purpose of the Study

The purpose of this study is to examine postoperative pain satisfaction with health care provider’s responsiveness to patients’ reports of pain.

Research Questions
1. What is the level of patient satisfaction with the responsiveness of health care staff to patients’ reports of pain?

2. What is the current pain intensity of postoperative patients?

3. What is the degree of pain relief obtained from pain management interventions?

**Theoretical Framework**

Melzack’s and Wall’s Gate Control Theory of Pain published in 1965, will be the theoretical framework for this study. The Gate Control Theory of pain has contributed to the nursing knowledge base and clearly informs nursing practice. This theory evolved from early theories of pain. The Gate Control Theory is predicted on transporting messages to the brain through impulses that are received on a first come first serve basis. A parallel system of nerves runs from the periphery of the body to the spinal cord where a synapse takes place. A second nerve then conducts a message to the brain where the information is processed (Findlay, 2004). When pain reaches a certain threshold, the gate will open and pain signals will prevail. Pain can be controlled through the use of analgesics. Analgesics achieve pain relief by reducing activity on a particular part of the conduction system (Findlay). Pain varies with each individual and the individual reacts different to pain for this reason the Gate Control Theory of Pain will be used for this study.

**Definition of Terms**

*Patient satisfaction with pain management intervention: Conceptual*

According to Chung and Lui (2003), it is important to identify patient outcomes in terms of self-reports of pain and satisfaction. Patient satisfaction can be described as dissatisfaction, mild satisfaction, moderate satisfaction, and very satisfactory.
Patient satisfaction with pain management intervention: Operational

Patient satisfaction with pain management intervention will be assessed using the American Pain Society Patient Outcomes Questionnaire (APS-POQ). The questionnaire contains questions regarding pain and patient satisfaction with pain management received (American Pain Society, 2010).

Pain Intensity: Conceptual

According to Bjolseth et al. (2006), pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage.

Pain intensity: Operational

Pain intensity will be measured using the American Pain Society Patient Outcomes Questionnaire (APS-POQ). This questionnaire contains questions about The questionnaire contains a total of thirteen items, with four items on pain severity, two items on level of satisfaction, three items on time taken to receive pain medications, and four items on attitude of the staff (American Pain Society, 2010).

Assumptions

Postoperative pain management is a major challenge in care of surgical patients. Although care has improved studies show that postoperative pain continues to be inadequately treated and that patients still suffer moderate to severe pain after surgery. Inadequate postoperative pain management has harmful effects to the patient which include: deep vein thrombosis, increased myocardial oxygen consumption, respiratory infection, muscle spasm, increased postoperative stress, anxiety, fear, sleeplessness and possibly chronic pain and therefore longer hospital stays and patient dissatisfaction. Staff
education as well as patient education about pain management can lead to adequate pain management in the postoperative period.

Limitations

The results of the study will only reflect one hospital of many in the United States. The study will also only take place for less than a year. The questionnaire is the same for all patients with no regards to type of procedure. Patients have different attitudes towards pain intensity and toward satisfaction with pain relief. The patient fills out the questionnaire within one hour of having general anesthesia so the participants’ answers to the questions may not be accurate.

Summary

This study will use The Gate Control Theory of Pain. The purpose of this study is to examine postoperative pain satisfaction with health care provider’s responsiveness to patients’ reports of pain. The information from this study will be used to improve patient satisfaction with health care providers’ response to patients’ reports of pain in the postoperative period.
Chapter II

Literature Review

Introduction

Acute postoperative pain is a major problem, which is not well addressed clinically, with patients regularly reporting significant pain following surgery (Clark & Schoenwald, 2006). Untreated postoperative pain can lead to harmful effects to the patient which include: deep vein thrombosis, increased myocardial oxygen consumption, respiratory infection, muscle spasm, increased postoperative stress, anxiety, fear, sleeplessness and possibly chronic pain (Clark & Schoenwald). Assessment is essential and challenging component of managing a patient’s pain. Nurses document a patient’s pain using numeric rating scales, visual analogue scales, and or verbal descriptor scales (Rom, Rosen, Sloman, and Wruble, 2006). Pain is a multidimensional phenomenon, it is subjective, and there are no objective measures of pain that exists to capture every aspect of pain experience (Rom et al.). Careful assessment of pain is needed in-order to appropriately treat and adequately relive a patient’s pain and suffering.

Purpose

The purpose of this study is to examine postoperative pain satisfaction with health care provider’s responsiveness to patients’ reports of pain.
Organization of Literature

This chapter contains research studies on pain experiences and pain management of postoperative patients. The literature review is divided into four sections: (a) Theoretical framework, (b) Satisfaction, (c) Patients Perspective, (d) Nurses Perspective, and (e) Improvement

Gate Control Theory

Various factors have an impact on the provision of pain relief in health care, including the values and assumptions of the nurse’s knowledge of pain. Melzack’s and Wall’s (1965) Gate Control Theory of Pain, will be the theoretical framework for this study (Findlay, 2004). The Gate Control Theory of pain has contributed to the nursing knowledge base and clearly informs nursing practice. This theory evolved from early theories of pain. Descartes’ Specificity theory of pain is one theory that the Gate Control Theory of Pain evolved from. Descartes’ theory was one of the first scientific explanations for a complex phenomenon known as conceptually as pain (Findlay, 2004). Descartes theory assumed that the body responds to painful stimuli via a simple nerve conduction system from the peripheries to the brain (Findlay).

Melzack and Wall (1965) expanded on Descartes’ concept of a conduction system; adding that a parallel system of nerves runs from the periphery of the body to the spinal cord, where a chemical synapse takes place (Findlay, 2004). A second nerve then conducts a message to the brain where information is interpreted. “Prior to synapse the parallel systems of nerves are compromised of small diameter fibers which are activated by noxious stimuli and large diameter fibers that conduct electrical impulses along the neuron when stimulated by innocuous stimuli” (Findlay, 2004, p. 38). It is this activity
between the two types of neurons that results in the opening and closing of the conceptual gate mechanism at the spinal cord (Findlay). When the activity in the cells reaches a threshold the gate will open and the pain signals will prevail.

*Satisfaction with Pain Control*

One of the essential components of surgical patient care is effective postoperative pain control. Inadequate pain management, apart from being insensitive, may result in increased morbidity and mortality. Important goals for postoperative pain management are to minimize discomfort, facilitate recovery process, and avoid complications (Jawaid, Malik, Muhammad, & Shafiq, 2009). The purpose of the study was to assess the acute postoperative pain management by a surgical team and patient satisfaction (Jawaid et al., 2009).

The study took place in a surgical unit of a Civil Hospital in Karachi. It consisted of one hundred and five patients; sixty-five males and forty females with a mean age of thirty-five. Patients were scheduled for general surgery and all patients received analgesia medication through intravenous or intramuscular route (Jawaid et al., 2009).

The Numerical Visual Analogue Scale (VAS) was used to measure pain intensity. Participants selected the number that best reflected the intensity of pain (1 being no pain and 10 worst pain). All patients were assessed at twelve hours and twenty-four hours postoperatively using two numerical visual analogue scales (resting and dynamic pain). Resting pain was defined as pain at the surgery site experienced by patient when not moving and dynamic pain was pain experienced on movements like walking, coughing, and deep breathing (Jawaid et al., 2009).
At twelve hours postoperatively the mean of the scores at rest was 3.85 and the mean of the dynamic pain scores were 5.32. At twenty fours hours postoperatively the mean rest score was 2.84 and the dynamic pain score was 4.65. The female patients experienced more pain than the males. Forty-seven patients were very satisfied, forty-two moderately satisfied and sixteen mildly satisfied with pain management (Jawai et al., 2009).

It is essential that regular assessments of postoperative pain are performed in the postoperative period. Clinical guidelines and quality programs are considered essential tools to enhance postoperative pain management. Patient satisfaction is rapidly evolving as an important consideration in postoperative pain management. The study concluded that postoperative pain management by the surgical team was satisfactory with most patients being moderately to very satisfied with care providers (Jawai et al., 2009).

Inadequate management of postoperative pain has been difficult to establish owing to inadequate assessment, poor communication, and individual variability on the experience and exhibition of pain. The purpose of this study was to survey the factors affecting patient satisfaction with postoperative pain management (Makela, Murola, Niemi, Poybia, & Rben, 2007).

The study took place in four different wards of the Helsinki University Hospital. Three orthopedic wards were used; for patients undergoing orthopedic surgeries and one ward for patients undergoing vascular surgery. There were seventy-seven patients that participated in the study; twenty-nine male and forty-eight female with the average age of sixty-three. There were sixty-three total nurses. There were two male nurses and fifty-nine female nurses with the average age forty-one to fifty and the average number of
year’s experience eleven to fifteen. Patients suffering from dementia, postoperative confusion, or other problems preventing answering questions were excluded from the study (Makela et al., 2007).

Intensity of pain was assessed using a 10cm visual analogue scale (VAS). The questions the patient answered consisted of; demographic data, preoperative visit, and condition before anesthesia and during recovery. There were eight preoperative items and thirty questions regarding patient’s perceptions of the postoperative period. The nurses received a questionnaire asking her attitudes on pain and pain relief. The questionnaire consisted of six background questions and twenty-one pain related questions (Makela et al., 2007).

The patient satisfaction questionnaire was returned by seventy five percent of the patients. Eighty percent of the patients agreed or totally agreed with the statement “I am satisfied with the treatment of pain” (p. 125). There was a negative correlation between the scales Satisfaction and Preoperative bad feelings. There was also a negative correlation between patient’s age and preoperative information. The mean of all VAS scores on all wards was two during the first twenty-four hours. VAS above six was recorded from twenty-eight of eighty-eight patients and fifteen had a VAS above that. VAS four or more was recorded from forty-four of eighty-eight patients and twenty-one had more than three VAS recordings above that. Medication was given to patients having a VAS of four or more. Eighty four percent of the nurses returned the questionnaire. They had positive attitudes toward measurement of pain. Forty four percent of the nurses wished for more pain related education of the wards and eighty four percent wished for more pain related education outside the ward (Makela et al., 2007).
General patient satisfaction is an insensitive method to assess the adequacy of postoperative pain, because most patients are satisfied with the pain management they received even if they suffer from mild to moderate pain. Education of nurses should be combined with patient education to create a common language for measurement of pain. Inadequate preoperative discussion in regards to pain was correlated with high level of postoperative pain. The preoperative questionnaire may help find vulnerable patients or those with potential postoperative problems with pain management. Also preoperative factors correlated with postoperative satisfaction, and preoperative interview seems to be an important tool to receive and give information concerning postoperative pain management (Makela et al., 2007).

Acute postoperative pain is a major problem, which is not well addressed clinically, with patients regularly reporting significant pain following surgery. (Clark & Schoenwald, 2006) Untreated postoperative pain can lead to harmful effects to the patient which include: deep vein thrombosis, increased myocardial oxygen consumption, respiratory infection, muscle spasm, increased postoperative stress, anxiety, fear, sleeplessness and possibly chronic pain (Clark & Schoenwald, 2006). The purpose of the study was to assess experiences of acute surgical pain by the patient description of pain intensity and patient satisfaction with peri-operative pain management. There was no framework identified for this study.

The study took place in a large metropolitan hospital in South East Queensland. The sample consisted of one hundred and seventeen participants that were recruited by convenience sampling. The inclusion criteria used to select participants were: must be eighteen years of age, postoperative patients who had undergone various surgical
procedures which included: orthopedic, gynecology, general, ear nose and throat, and Caesarean sections; participants must have spent at least one night in the hospital (Clark & Schoenwald, 2006)

A visual analog scale (0-10) was for patients to rate their pain, The Likert scale was used to measure patient attitudes in relation to pain management. A pain intensity and satisfaction tool adapted from Jamison (1997) was also used. The validity and the reliability of the questionnaire may be compromised, particularly in relation to the inconsistency of some of the questions which may not specifically involve pain management or may be confusing to the participant (Clark & Schoenwald, 2006)

Patients reported that they were satisfied with the pain management they received. The majority of the patients reported that they felt their doctors and nurses cared about their pain level. One hundred and thirteen participants felt their pain was more then they expected to have. One hundred and twelve participants found information they received before surgery to be helpful, twenty-seven participants gave a neutral response and eleven participants did not agree. Seventy five percent felt the pain medication help relieve pain, and eighteen reported that medication was moderately helpful. The longest wait time for pain medication was fifteen to thirty minutes and the lease amount of time waited was less than five minutes (Clark & Schoenwald, 2006)

The majority of the patients were satisfied with the way their pain was managed despite reports of significant pain. There is a need for a stronger clinical focus on managing acute pain with areas of specific need being: patient education and clinician education. It is also indicated that thorough assessment and planning for pain relief is
required throughout the entire patient experience including pain issues prior to hospitalization and discharge pain (Clark & Schoenwald, 2006)

Pain is a common symptom that most patients experience especially true for patients in the postoperative period. Management of postoperative pain has been a concern for many decades; with current treatments being less than adequate. According to Chung and Lui, (2003), “between forty seven percent and seventy five percent of all surgical patient experience significant postoperative pain and seventy five percent to one hundred percent experience moderate to severe postoperative pain; suggesting that pain control is far from ideal.” (p. 13) The study was conducted to examine subjects’ postoperative pain intensity, most intense, pain experience, degree of pain relief, and satisfaction with health care provider’s responsiveness to patients’ reports of pain, and satisfaction levels among subjects based on patient characteristics (Chung & Lui, 2003). The framework for this study was not identified.

The setting for this study took place in a large general hospital in Hong Kong. The sample consisted of two hundred and ninety four subjects that were undergoing surgical procedures. One hundred and forty one were male and one hundred fifty three were female. The surgical procedures ranged from abdominal procedures (32.3%), thoracic procedures (.7%), ophthalmic procedure (22.4%), and dermatology (2%). The criteria for eligibility to the study included: consciousness, ability to communicate in Chinese, and no known history of cancer or mental illness (Chung & Lui, 2003).

The measurements consisted of two questionnaires. The first questionnaire was an investigator developed demographic data sheet. This would gather information about the subject’s age, marital status, education, religion, and occupation. The second
questionnaire assessed the patient’s outcomes regarding pain and was developed by the American Pain Society. The questionnaire contained 13 items; four on pain severity, two on level of satisfaction, three on time taken to receive pain medication, and four on attitudes of staff. The Likert pain rating scales was also used. The Mann-Whitney U-tests were conducted to examine the differences in reported pain intensity based on sex, age, occupation, education, and type of anesthesia. ANOVA with posthoc test were used to reveal the differences among clinical units (Chung & Lui, 2003).

Two hundred and forty nine subjects complained of varying degrees of pain and the majority of the subjects viewed their pain as acute and temporary. Seventy-two subjects reported no pain and one third indicated the presence of mild pain, seventy-one complained of moderate pain, and 10 reported severe pain. There were no results that showed a significant difference between male and female patients. The median pain intensity was 5 and the mode was 8. There were no differences in pain intensity and satisfaction levels between occupations, types of anesthesia and type of procedure. There was a significant difference between level of education and satisfaction. Forty-nine were extremely satisfied with pain relief, one hundred sixty six were satisfied, twenty-two were fairly satisfied, and nine were dissatisfied (Chung & Lui, 2003). The majority of the patients waited less than fifteen minutes for pain medication.

The results showed that patients experiencing pain were satisfied with the pain management they received. The patients did expect to have pain in the postoperative period. Less than half of the subjects reported that the nurse’s emphases concern for pain relief; which leads to the need for more professional education about pain management. Educating the health care professionals on communication techniques and gaining trust of
the patient is a step to helping the problem. It is clear that if it is only focused on the satisfaction rating of patients with health care providers regarding pain management, this could erroneously lead to the conclusion that pain management practice is optimal (Chung & Lui, 2003).

Postoperative pain is a significant problem for hospitals. What happens in the perioperative period has a significant effect on pain management outcomes; therefore efforts to achieve successful outcomes must begin preoperatively and continue through discharge. Pain has been a low priority in overall postoperative care; until recent efforts were initiated to include pain as the fifth vital sign. The purpose of this study was to determine the pain experiences as reported by surgical patients and what factors influenced patient satisfaction with pain management (Disnard et al., 2003).

Two studies were conducted. Study A was conducted in two hospitals in the southwestern United States, the second study (B) was conducted three years later. The participants had to be eighteen years of age or older, have been in the hospital for at least twenty four hours, have undergone surgery or experienced another painful condition, be English speaking, and be cognitively aware. The sample consisted of two hundred and fifty eight surgical patients; all but one was recovering from general surgery with the exception that sixty-two participants from study A were recovering from cesarean section. Study A was primarily female (72%) with a mean age of forty-five years and an education level of high school graduation or general equivalency diploma. In study B there were ninety-one surgical patients with a mean age of fifty-five and seventy percent male (Disnard et al., 2003).
Three data collection instruments were used and data collectors recorded information about age, ethnicity, diagnosis, occupation, and religion. A modified American Pain Society patient outcomes questionnaire, which consisted of sixteen items, was used to gather information about participants’ pain experience at a given point in time. Pain intensity and interference items were scored on a zero to ten scale (ten indicating more), and satisfaction items scored on a zero to six scale (higher indicating greater satisfaction). The reliability of the pain outcome questionnaire in the sample was estimated using Cronbachs. In study A the three satisfaction items demonstrated the lowest reliability. In study B the satisfaction subscale became four items, with an item added to measure satisfaction with instruction, which demonstrated a Cronbachs of .84 (Disnard et al., 2003).

The mean patient ratings for pain now, worst pain, and general level of pain in the last twenty four hours are slightly lower for participants in study B compared to participants in study A, and satisfaction ratings in study B are similar. Satisfaction was correlated inversely and significantly with pain intensity, meaning the lower the pain rating the greater the patient’s satisfaction. In study A satisfaction was not correlated significantly with worst pain, but data from study B revealed a higher significant correlation (R=-.3; P=.005). Using the Mann-Whitney U test, a significant difference was demonstrated in both studies between satisfied and dissatisfied participants (Disnard et al., 2003).

Participants in the study reported high satisfaction with pain management even when experiencing moderate pain and pain that interfered with activity. Comments from satisfied participants indicted that timeliness of health care provider’s response to complaints of pain or need for change in medication combined with their interest and
skillfulness in alleviating pain contribute to satisfaction with pain management. Preoperative teaching must help patients understand how to communicate unrelieved pain, enhance comfort, and improve satisfaction. Discharge teaching should focus on when to take pain medication, adverse effects, explanation about medications the patient will be taking at home, and possible incompatible medication combinations. Patient education is a determining factor in patient satisfaction (Disnard et al., 2003).

*Patients Perspectives on Pain Control*

Assessment is essential and challenging component of managing a patient’s pain. Nurses document a patient’s pain using numeric rating scales, visual analogue scales, and or verbal descriptor scales (Rom et al., 2006). Pain is a multidimensional phenomenon, it is subjective, and there are no objective measures of pain that exists to capture every aspect of pain experience (Rom et al.). This study was conducted to investigate the issue of how much reduction in pain is clinically meaningful from the patients’ perspective by comparing levels of postoperative pain reduction measures by a numeric rating scale (NRS) with the patients’ verbal descriptions of how meaningful they consider their pain reduction to be (Rom et al.).

A convenience sample of one hundred and fifty adult patients with acute postoperative pain was obtained from a surgical ward within a large teaching hospital in Jerusalem, Israel. There were fifty-two men and forty-seven women; ages ranged from 14-89 with a mean of 47. The type of surgery was abdominal (56), orthopedic (28.6), and other (15). The only criteria for inclusion in the study were postoperative pain and they had to be on the surgical ward (Rom et al., 2006).
The numeric pain rating scale (NRS) was used for pain severity, the verbal rating scale (VRS) was used to see how much the pain has improved, and the numeric rating scale (satisfaction) (NRS-S) was used to see how satisfied the participants were with the level of pain relief. Demographic dating and personal background information relating to culture, ethnicity, religion, and language were also collected using a questionnaire. Reliability was not reported (Rom et al., 2006).

There was a significant correlation between the percentage of improvement in pain severity on the NRS and the patients’ ratings of descriptive categories of pain improvement on the VRS. Satisfaction with the level of improvement for pain on the NRS-S was positively correlated with the descriptive ratings of pain improvement on the VRS. Analysis multivariate analysis showed no significant effects for demographic or cultural variables such as gender, age, religion, educational level, or ethnicity. A one analysis of the variance showed that there was a strong significant difference between the mean values for the percentage of pain reduction. Subjects stated that their treatment for pain had provided them with “much relief” (Rom et al., 2006).

Careful assessment of pain is needed in-order to appropriately treat and adequately relieve a patient’s pain and suffering. Nurses should ask the patient to describe their pain and pain relief in their own words because this will give a more accurate picture of the patients’ pain (Rom et al., 2006). It is also suggested that words be used to describe the pain rather than numbers. Numbers can show the direction or extent of pain however it cannot show an accurate picture of what the patients is feeling in terms of pain (Rom et al.). Rom et at. conclude that: “nurses should aim to achieve optimal pain relief in terms that are clinically meaningful to the patient”. (p. 158)
Experiencing pain is the most common concern of adult patients before surgery, even more than whether the surgery would improve their condition (Denny et al.). Inadequate management of postoperative pain remains common despite advances over the last four decades in our knowledge of pain pathophysiology and the proliferation of clinical practice and guidelines (Denny et al., 2009). This study investigated the needs of adult general day surgery patients, specifically those areas of information about pain and pain management that are most important to patients who have recently experienced acute postoperative pain. The research question is: How important are information items about pain and pain management from the perspective of general day surgery patients (Denny et al.). The framework was not specified in this study.

A convenience sample was taken and consisted of one hundred and fifty postoperative patients. Each patient was contacted seventy-two hours after discharge from the hospital to home. The sample was not limited to specific surgeries. The subjects included in the sample were over eighteen years of age, able to read and write English, and discharged home after having day surgery. Subjects were excluded if they had a history of substance abuse or major psychiatric disorder or had an episode of confusion or disorientation during the admission (Denny et al., 2009). The majority of the subjects were male (53) with (47) females and the mean age was 52.7. The top three surgical types consisted of ophthalmology, knee arthroscopy, and hand surgery (Denny et al.).

The Information Needs Questionnaire-Pain and Pain Management (INQPP) were developed by reviewing current international clinical guidelines. The INQPP consisted of nineteen items to be rated on a 10 point Likert scale of importance. Items were grouped into three broad categories: pain, side effects of pain medicine, and leaving the
hospital. The survey also contained thirteen demographic questions and five questions that addressed leaning style and internet use. The study was limited by several factors: (a) the majority of the subjects were English speaking; (b) only three surgery types; (c) all subjects had day surgery; (d) data collection was retrospective; and (e) data was collected using phone survey (Denny et al., 2009).

The information items of most importance to the group were related to the theme “After leaving the hospital, what is the analgesic plan and what do I do if it doesn’t work?” More specifically: (a). “What to do if I still have pain or side effects (mean 8.7/10); (b). “Who to call if the pain is not well controlled” (mean score 8.6/10); and (c). “The plan for which analgesics to take and when” (mean score 8.5/10). (p. 25). The next most important items were related to side effects of medication. There was no association between the importance of individual information items and either surgical type, health status, or age. Other information that patients wanted information on were: expectation of pain experience/severity, information about pain types and degree of pain, information about pain medication; side effects and options, and requested discharge instructions to be given preoperatively (Denny et al., 2009).

The results of the study validate earlier literature findings that information about pain management is very important to patients. Recommendation for further study would be to: (a) expand to an inpatient group to obtain greater variety of procedures as well as general medical patients; (b) include questionnaire statements related to the eight additional qualitative pain information themes found in this study; (c) explore the nature and direction of the putative association between the subjects preoperative pain and postoperative; and (d) include subjects with limited English proficiency. Patients want to
know what to expect of the pain experience itself, the pain management plan after
discharge, what to do if it doesn’t work, expected side effects of the medications, and
how to manage them (Denny et al., 2009). It’s important for health care professionals to
improve pain management education and counseling (Denny et al., 2009).

Inadequate controlled pain after ambulatory surgery is common. Uncontrolled pain
after ambulatory surgery is associated with: (a) increased symptoms of nausea, anxiety,
and delirium; (b) prolonged post-anesthetic care in PACU; (c) delayed discharge from
ambulatory surgical facilities; (d) readmission; and (e) delay is regaining normal
activities at home. The purpose of this study was to examine the postoperative pain, pain
related interference with usual activities, and analgesic us of L/S cholecystectomy, hand
and shoulder surgery patients at four periods during the first week after discharge (Chan,
Chung, McGillion, & Watson, 2004).

This study used a convenience sample from the day surgery unit of a large
metropolitan hospital affiliated with a university. Sixty patients from each of the three
surgical groups was use. It consisted of one hundred and eighty patients over a nine-
month period. Inclusion criteria consisted of: (a) having their first L/S Cholecystectomy,
shoulder or hand surgery; (b) being discharged the same day as the surgery, (c) able to
understand, read, and speak English. Patients were excluded if: (a) they had previous
similar surgeries; (b) their surgery/postoperative recovery was preoperatively known to
be complicated; (c) they were unable to understand, read and speak English (Chan et al,
2004).

The Brief Pain inventory-Short Form (BPI-SF) was used to measure severity if pain
and its impact on functioning. Reliability has been consistently above 0.85. Measure
consist of nine items which include: two pain prevalence and location questions, four pain intensity numerical rating scales, one pain relief, and an interference subscale. Post-discharge Inventory assessed analgesic related adverse effects. The American Pain Society-Patient Outcomes Questionnaire (APS-POQ) was used to assess the clarity of discharge information, using analgesics, alternatives, and pain relief (Chan et al, 2004).

Pain decreased more quickly with hand and Laparoscopic Cholecystectomy than shoulder surgery. Shoulder and Laparoscopic Cholecystectomy patients had more overall interference with activities of daily living, with shoulder patients having the highest scores. There was a significant difference between groups for both sleep and work interferences. Sleep interference decreased more rapidly for hand surgery. And work interference decreased more rapidly for Laparoscopic Cholecystectomy. Fifty percent of all patients used some type of analgesia for up to seventy-two hours postoperatively with fifty-four all the shoulder patients using pain medication for up to seven days. Constipation was the number one reported adverse affect from the pain medication followed by nausea and drowsiness. The majority of the patients (69%) reporting receiving enough information to take care of themselves after discharge. The majority (73%) also said they felt prepared to manage their pain at home (Chan et al, 2004).

In conclusion the authors felt that the data suggest that pain management for hand, shoulder, and Laparoscopic Cholecystectomy patients was inadequate. Considerable pain was reported across all days; particularly for shoulder surgical patients whose activities, work, and sleep were affected. Successful discharge and effective postoperative pain management at home require preoperative education, discharge planning with respect to
expectations of pain and pain management after surgery. Discharge should also include information about nausea and constipation (Chan et al, 2004).

*Nurses’ Perspectives on Pain Control*

Good quality of care is considered to be the right of all patients and the responsibility of all staff within the hospital. The purposes were to 1. Describe nurses’ assessments of how realistic they thought it was to effectuate good quality of care in postoperative pain management of inpatients, and 2. To compare these assessments with the quality of care actually delivered assessed by both patients and nurses (Idvall, 2004).

This study took place in five surgical wards in county hospitals in Sweden. The patient sample consisted of two hundred and nine inpatients. Inclusion criteria consisted of; patients scheduled for an elective surgical procedure, orientation to person and place, able to understand Swedish, at least eighteen years of age, and spent a minimum of twenty four hours in the surgical ward after the surgical procedure. The mean age was sixty-two and sixty-one percent of the patients were female. The sample of nurses consisted of sixty-three registered nurses from the same five surgical wards. The mean age of the nurses was thirty-eight and ninety four percent were female with the average number of year’s experience of thirteen years (Idvall, 2004).

The instrument used to assess the patients’ perspective of quality of care was the Strategic and Clinical Quality Indicators in Postoperative Pain Management. This consists of fourteen open-ended statements scored on a five-point scale. The nurses used the same questionnaire as the patient; however the questions were adjusted for the nurses. The same five-point scale was used. The second nurse questionnaire was used to describe whether nurses assessed the statements in the Strategic and Clinical Quality
Indicators in Postoperative Pain Management to be realistic effectuate in daily clinical practice (Idvall, 2004).

The results showed a discrepancy between what the nurses considered to be realistic to carry out and what they actually thought they had effectuated for the patients. The mean scores for the statements assessed by the patients varied between 2.8 and 4.7, with the higher values indicating a higher quality of care (range 1-5). The nurses mean score varied between 3.3 and 4.8 for the same statements. Differences were found in all subscales. To subscales (communication and action) the quality of care actually performed was assessed by both patients and nurses as having lower scores than what the nurses assessed to be realistic to carry out in clinical practice. Differences in the two other subscales (trust and environment) showed higher scores for the quality of care actually performed than what the nurses considered being realistic (Idvall, 2004).

Despite the presence of enough nurses on duty who were knowledgeable about pain relief, the patients and nurses assessed the quality of most important aspects of care in postoperative pain management being lower than the nurses assessed these aspects to be possible to effectuate in clinical practice. The discrepancies are complex and further research is suggested. The study highlights the problem of applying research evidence for postoperative pain management in actual clinical practices (Idvall, 2004).

Several nursing research studies have found that nurses lack knowledge of pain and pain management, as well as lacking skills in pain assessment. Nurses have more contact with patients than any other member of the healthcare team, and the fact that they have the prime role in promoting comfort and pain relief, it is crucial that they are able to make accurate pain assessments (Rom et al., 2005). The purpose of this study is to: compare
nurses’ ratings of pain intensity and suffering in adult surgical patients with the patients’ own ratings and to investigate whether pain ratings are significantly influenced by cultural and ethnic differences (Rom et al., 2005).

A convenience sample was obtained in which ninety-five patients were paired with ninety-five Registered Nurses in an adult surgical unit. Participants were selected from four hospitals in Jerusalem, Israel. Patients were included if they were receiving postoperative nursing care and were experiencing pain resulting from surgery. All patients could speak Hebrew or English and all nurses must be Registered Nurses. Fifty-two of the patients were men and forty-three were female with an average age of fifty and ranged from eighteen to seventy eight. Type of surgery was either abdominal (44.2%), orthopedic (37.9%), or thoracic (17.9%). The average age of the nurse was thirty-three and ranged from twenty to sixty four. Twenty-two were men and seventy-three were female with the average years of experience being ten with a range from one to thirty (Rom et al., 2005).

The Short-Form McGill Pain Questionnaire (SF-MPQ) was used to obtain quantifiable measures of the sensory affective and intensity dimensions of pain experiences. The SF-MPQ consisted of fifteen pain descriptors. The first eleven are sensory and the last four are affective. The descriptors are scored on an intensity scale with 0= none and 3=severe. Three visual analog scales were also used: (a) overall pain intensity; (b) suffering and distress associated with pain; and (c) for patients’ satisfaction with their pain treatment. A demographics and cultural questionnaire was used to gather information about culture, gender, age, family situation, country of birth, education, and years of nursing experience, type of employment, ethnic background, and religion (Rom et al., 2005).
Nurse’s significantly underrated pain as compared to patients in pain sensation, pain affect, and overall pain intensity and patients suffering due to pain. Nurses did however accurately estimate patient’s satisfaction with pain treatment. There were no differences between patient and nurse ratings of satisfaction with treatment. No differences were found in nurses working in different clinical areas or level of education did not show to be a significant part of pain assessment. Culture and demographics were not shown to influence the pain variables (Rom et al., 2005).

Nurses place a high value on patient comfort and pain relief however there is a significant difference between the nurses and the patients’ ratings of pain. Patients draw on their own experienced while nurses may draw on their experiences with a wide number of patients that they have cared for over a number of years. It is recommended that further research in the area of nurses’ assessment of pain be conducted. It is also recommended that nursing curricula be reviewed regarding pain management (Rom et al., 2005).

Barriers to effective postoperative pain management, such as insufficient knowledge about pain, inadequate assessment and evaluation of pain and various attitudes to pain and its management, may contribute to inadequacy in postoperative pain management (Bjolseth et al., 2006). The study was based on two definitions of pain: pain is whatever the experiencing person says it is, exiting whenever she says it does; and pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage. The purpose of this study was to increase understanding about how nurses contribute to postoperative pain management in a clinical setting (Bjolseth et al., 2006).
This study took place in two hospitals in Oslo, Norway. Hospital A had twenty-five beds and a staff of twenty-three nurses and five nursing assistants. Hospital B had one surgical ward with eighteen beds and another with thirty beds. One had seventeen nurses and five assistants and the other had twenty-two nurses and six assistants. Nine nurses were drawn from the two hospitals. Five nurses were from hospital A and two from each unit from hospital B. The inclusion criteria were; nurses with experience and interest in the topic, and nurses familiar with the pain routines on the ward. There were seven women and two men with an age range from twenty-seven to thirty-five (Bjolseth et al., 2006).

Data were collected through observation and interview using semi-structured observation and interview guides based on theory of pain and postoperative pain management. The interviews were audio typed. To increase the validity and trustworthiness two researchers experienced in pain management analyzed the data. Data was analyzed using Kvale’s guidelines for qualitative research (Bjolseth et al., 2006).

The nurses claimed they gave some information about postoperative pain during the patient’s admission prior to surgery. It was found that the nurses gave no preoperative information about pain unless the patient specifically asked for it. The nurses also said they assessed pain by communicating with the patient and observing them. Pain was assessed by talking with the patients, asking them about pain and observing non-verbal signs of pain. It was found that the nurses assessed the patients differently; some through direct and some indirect questions were used. The results also found that there was an
unsystematic and inadequate pain evaluation; and the effects of pain medication were only evaluated if it was given intravenously (Bjolseth et al., 2006).

A discrepancy appeared between the nurses own perceptions about how they health with postoperative pain management and how they actually performed it in the clinical setting. The nurses used different approaches to pain management and none of the nurses taught patients preoperatively about postoperative pain and pain management. The study revealed a gap between what the nurses said and what they actually did in postoperative pain management. The findings underline the significant role of the nurses in postoperative pain management. Further research is needed to test interventions designed to address complex pain problems in order to obtain more effective pain relief for patients experiencing postoperative pain (Bjolseth et al., 2006).

Improvement in Pain Management

Postoperative pain management remains one of the major challenges of caring for a surgical patient. Care has improved however studies still show that postoperative pain continues to be inadequately treated and that patients still suffer moderate to severe pain after surgery. The purpose of this study is to introduce a nurse-led intervention to improve pain management after surgery and evaluate its effectiveness by measuring patients’ pain scores (Mac Lellan, 2004).

The design of the study was experimental (pretest-post-test) comparing patient’s pain scores within two hospitals. Both the hospitals involved in the study were teaching hospitals in Ireland. The hospitals have similar patient profiles, hospital history, and nurse education systems. Convenience samples of gynaecological, orthopedic, urological and general surgical patients were selected. Patients were excluded if they were:
admitted to the intensive care unit or high dependency units, confused, unable to use a 10 cm Visual Analogue Scale or did not consent. The study states “the literature is conflicting in relation to accuracy and reliability of recall of pain and suggests that recall of pain is not accurate even at twenty four to forty eight hours postoperatively” (Mac Lellan, p. 181).

A total of eight hundred patients had their pain measured five times a day on a 10 cm VAS with no pain at the end and worst pain at the other end. The initial measurements started on the day of surgery and continued for two days. Baseline data; 200 patients pre-intervention in both control and intervention hospitals (400) were compared with subsequent data collection after the introduction of a nurse led intervention in the intervention hospital. The control hospital was incorporated into the design to evaluate temporal effects that may produce changes in patients’ pain experiences (Mac Lellan, 2004).

A total of 9,138 pain scores were obtained. There were five twelve hour time periods after each patients operation: 1, 0-12 hours, period 2, 13-24 hours; period 3, 25-36hours; period 4, 37-48 hours and period 5, 49-59hours. Pain scores were aggravated for the three twenty-four hour periods after surgery into days one, two, and three. The t-test showed a significant reduction in mean pain scores for each day for the intervention hospital, and the reductions in pain scores were approximately equivalent to 0.73com on the 10 cm VAS scale, which is a reduction in the order of 7.3%. In the control hospital there were no reductions of mean pain scores (Mac Lellan, 2004).

The results demonstrate that patients continue to suffer pain after surgery; some are even moderate to severe pain. This study highlighted the positive effects that a nurse led
intervention had on patient’s pain and demonstrated the important role of the nurse. This was based on the application of basic pain management principles were the nurse would interpret the pain, administer pain medication, and provide information to patients and work as members of teams (Mac Lellan, 2004). The study suggests that certain skills and knowledge are needed to effectively manage pain and strategies are needed to ensure that nurses have these skills and knowledge and use them in practice settings (Mac Lellan).

Summary

Unrelieved post-operative pain remains a persistent problem for surgical patients, which may lead to negative consequences for recovery. Pain slows recovery and may cause complications, which include: respiratory issues, immobility and deep vein thrombosis. Some factors accounting for unsatisfactory pain management include: inadequate assessment, poor communication among members of the health care team, negative attitudes towards the use of opioids, and misconceptions about pain. (Chung et al., 2003)

What happens in the preoperative period has a significant effect on pain management outcomes (Disnard et al., 2003). A study by Denny et al. (2009) Suggest that preoperative education of patients about postoperative pain and pain control can influence patient postoperative pain experience and satisfaction with pain management. Patients can benefit from preoperative education about pain and pain management. Information should include pain rating scale used by the hospital and how often pain medication can be received. Patients need to take a more active role in pain management. To often patients rely on healthcare professionals to know when more analgesia is needed. Three articles review suggested that patients were satisfied with the pain
management they received despite experiencing moderate to severe postoperative pain. Chung and Lui (2003) suggest that these results occurred because most patients have a high expectation that pain will occur and a low expectation that expedient pain relief will occur.

It is estimated that between forty seven percent and seventy five percent of all surgical patients experience significant post-operative pain, and seventy five to one hundred percent experience moderate to severe post-operative pain; indicating pain control was far from ideal. (Chung et al., 2003) Pain is a subjective experience felt only by the patient. Pain is what the patient says it is therefore it is important to assess the patient’s pain level in order to control or relieve their pain. To achieve optimal pain management is to ensure that no one suffers from pain. A study by Bjolseth et al., (2006) found that there was a gap between what the nurses said they did and what they actually did in postoperative pain management. This finding suggests that nurses need more education about pain management; including assessment of pain. A study by Rom et al., (2005) found that nurses underestimate postoperative pain by significant amounts. Thorough assessment and planning for pain relief is required throughout the entire patient experience including pre and post-operative. Accuracy in pain assessment by the nurse is important to apply appropriate treatment and relief of pain and suffering.
Chapter III  

Methods and Procedures

Good quality care is considered to be the right of all patients and the responsibility of all staff within the hospital. One of the essential components of surgical patient care is effective postoperative pain control (Jawaid et al., 2009). The purpose of this study is to examine postoperative pain satisfaction with health care provider’s responsiveness to patients’ reports of pain (Chung & Lui, 2003).

Problem Statement

Pain is a symptom that most patients experience; especially in the postoperative period. Acute post-operative pain is a major problem, which is not well addressed clinically with patients regularly reporting significant pain following surgery (Clark & Schoenwald, 2006). It is necessary to identify patient outcomes in terms of self-reports of pain severity and satisfaction. Inadequate postoperative pain control can lead to patient dissatisfaction as well as; deep vein thrombosis, increase in myocardial oxygen consumption, respiratory infection, muscle spasms, increase post-operative stress, anxiety, fear, sleeplessness, and possible chronic pain. More information is needed on patient satisfaction with health care providers’ response to patients’ reports of pain in the postoperative period.
Research Questions

4. What is the level of patient satisfaction with the responsiveness of health care staff to patients’ reports of pain?

5. What is the current pain intensity of postoperative patients?

6. What is the degree of pain relief obtained from pain management interventions?

Population, Sample and Setting

The study will be conducted in a small hospital in Logansport, Indiana. The population of the study will be taken from the hospital’s ambulatory surgery department. A convenience sample of one hundred participants is anticipated. The sample will include patients having surgery under general anesthesia. The surgical procedure will vary from general surgical procedures, Ear Nose and Throat procedures, and gynecology procedures. Inclusion criteria for participation in this study includes; ability to communicate in English, no known history of mental illness or cancer, must be at least eighteen years of age, and recovering from surgery with general anesthesia.

Protection of Human Subjects

This study will be submitted for approval to the Institutional Review Boards of Ball State University and the participating hospitals review board. Informed written consent will be obtained from each eligible participant prior to having any medications, prior to having surgery, and prior to data collection. Participant’s confidentiality will be maintained and each participant will be informed that he or she can withdraw from the study at anytime without affecting his or her health care treatment. No risks have been identified and the benefits of this study include; a greater understanding of pain control in
the postoperative period, increased patient satisfaction, and increased nursing knowledge in regards to postoperative pain control.

Procedure

Approval from the Ball State University will be obtained prior to initiating the study. The study will then be taken to the Chief Executive Nurse and the surgical department manager for approval. The length of time needed for data collection, the procedure for data collection, and anticipated start time will be discussed.

Screening for eligible participants will start in preoperative education. The preoperative educator will notify the researcher of the potential participants and when the participants are scheduled for surgery. Each eligible participant will be talked to the day of surgery in the ambulatory surgery department prior to surgery. Information about the study will be discussed with each individual and consent will be obtained for individuals willing to participate. The data collection process will take place when the patient is back in the ambulatory surgery department after having surgery and being in the recovery room. The researcher will talk with the participant prior to discharge and each participant will complete a demographic data sheet and the American Pain Society Patient Outcomes Questionnaire (APS-POQ).

Research Design

This study will use a descriptive survey design. According to Burns and Grove (2003) “A descriptive study is designed to gain more information about characteristics within a particular field of study.” The purpose of a descriptive study is to provide a picture of a situation as it naturally happens (Burns & Grove, 2003).

Instrumentation
The first questionnaire that will be used is a demographic data sheet to collect information about participant age, marital status, education, religion, and occupation.

The second questionnaire to be used is the American Pain Society Patient Outcomes Questionnaire (APS-POQ), which will be used to assess patient outcomes regarding pain (American Pain Society, 2010). The questionnaire was endorsed by the Agency for Health Care Policy and Research (AHCPR) and has been recommended as a tool to measure patient satisfaction with pain management. The questionnaire contains a total of thirteen items, with four items on pain severity (e.g. what is your current pain intensity?); two items on level of satisfaction (e.g. to what extent are you satisfied with the pain relief?); three items on time taken to receive pain medications (e.g. how long did you wait for a dose of pain medication?); and four items on attitude of the staff (e.g. does the nurse or physician remind you to report your pain?). An open-ended question will be added to the questionnaire that allows participants to express their opinions freely about the pain management they received. The majority of the items in the questionnaire are scored using the Likert rating scale, while the rest of the questions are yes or no responses (Chung & Lui, 2003).

**Intended Method of Data Analysis**

In order to summarize the participants’ demographic characteristics, current and worst pain intensity, and level of satisfaction with pain care provided descriptive statistics will be computed. According to Burns & Grove (2003) descriptive statistics are used primarily to describe the characteristics of the sample from which the data were collected and to describe values obtained from the measurement of variables. The Mann-Whitney U-test will be conducted to examine the differences in reported pain intensity based on
sex, age, occupation, education, type of anesthesia, and surgical procedure (Chung & Lui, 2003).

Summary

The purpose of this study is to examine postoperative pain satisfaction with health care provider’s responsiveness to patients’ reports of pain. The study will be a descriptive survey design. A convenience sample of one hundred participants is anticipated. The sample will include patients having surgery under general anesthesia in a small hospital. Melzack’s and Wall’s Gate Control Theory of Pain will be the framework for the study. Two questionnaires will be used to gather information. The first questionnaire will be a demographic data sheet to collect information about participant age, marital status, education, religion, and occupation. The second questionnaire used was the American Pain Society Patient Outcomes Questionnaire (APS-POQ), which was used to assess patient outcomes regarding pain. Descriptive statistics will be computed to summarize the participants’ demographic characteristics, current and worst pain intensity, and level of satisfaction with pain care provided. The Mann-Whitney U-test will be conducted to examine the differences in reported pain intensity based on sex, age, occupation, education, type of anesthesia, and surgical procedure. The information from this study will be used to improve patient satisfaction with health care providers’ response to patients’ reports of pain in the postoperative period.
Reference:


patients really want to know about pain and pain management? Pain Management Nursing, 10(1), 22-31.


*Journal of Advanced Nursing, 46*(2), 179-185.


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<tr>
<td>Chung &amp; Lui 2003</td>
<td>Treatment of acute postoperative pain is less than adequate. Leading to negative effects to patient</td>
<td>Examine postoperative pain intensity, degree of pain relief, satisfaction with health care providers responsiveness to pain reports</td>
<td>294 subjects 141 males 153 Female 160 were over 60 38% had not received any formal education ½ were retired or unemployed Surgical consisted of: orthopedic, general surgery, ophthalmology, or</td>
<td>Pain management, patient satisfaction and postoperative pain</td>
<td>Descriptive survey</td>
<td>Questionnaire developed by the American Pain Society</td>
<td>72 subjects reported no pain, and 1/3 had mild pain. 71 reported mild pain and 10 reported severe pain. Female reported higher pain than males. The median pain intensity was 5. higher levels of satisfaction was reported in the subjects</td>
<td>To achieve optimal pain management is to ensure that no patient suffers from pain. Empowerment of patients and health care members can increase patient satisfaction with pain management</td>
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<td>Clark &amp; Schoenwald (2006)</td>
<td>Acute postoperative pain is a major problem which is not well-addressed clinically, with patients reporting significant pain following surgery</td>
<td>Assess experiences of acute surgical pain by patient description of pain intensity and patient satisfaction</td>
<td>117 subjects recruited by conveniences sampling. All over 18 years of age, postoperative who underwent orthopedic, gynecology, general, ear nose and throat surgeries, and caesarean sections.</td>
<td>Acute pain, patient satisfaction, pain intensity</td>
<td>Descriptive survey</td>
<td>Likert scale, pain intensity and satisfaction tool adapted from Jamison (1997), and a visual analog scale 0-10</td>
<td>34% had no pain, 40% had moderate to severe pain 109 subjects were satisfied with their pain management 85 subjects felt the healthcare team was concerned with their pain.</td>
<td>Thorough assessment and planning for pain relief is required throughout the entire patient experience including pre and post-operative. Stronger clinical focus on managing acute pain was suggested.</td>
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<td>Rom, Rosen, Sloman, &amp; Wruble, (2006)</td>
<td>Pain is subjective and therefore no objective measure of pain exists that captures every aspect of the pain experience.</td>
<td>Investigate the how much pain reduction is clinically meaningful from the patient’s perspective by comparing levels of postoperative pain reduction measured by a numeric rating scale with patient’s verbal descriptions of how meaning they consider their pain reduction to be.</td>
<td>Conveniences sample of 150 postoperative patients. 52 males 47 female Mean age 47</td>
<td>Pain level, pain manageme nt</td>
<td>One-group pretest and post test design</td>
<td>Demographic questionnair e, NRS for pain severity, VRS for the amount of perceived relief in pain levels, NRS satisfaction with the level of pain relief</td>
<td>9% minimal pain relief</td>
<td>It is important for nurses to ask patients to describe their pain and pain relief in their own words because it will give a more accurate picture of what the patient is experiences.</td>
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<td>Denny, K., Kastanias, P., Robinson, S., Sabo K., &amp; Snaith, K. (2009).</td>
<td>Inadequate postoperative pain management is common with approximately 80% of patients experiencing pain and of these 47% have severe or extreme pain.</td>
<td>To investigate the needs of adult general day surgery patients, specifically in those areas about pain and pain management</td>
<td>204 subjects 47% female, 53% male, 75% college education, 25% high school, and 1% elementary school</td>
<td>Pain management</td>
<td>Descriptive quantitative study</td>
<td>Information needs questionnaire and pain and pain management tool, Likert scale</td>
<td>3 major concerns of the patients 1. what do I do when I leave the hospital if I have pain? 2. who to call is the pain is not well controlled and 3. the plan for which pain medication to take and when</td>
<td>Improve patient education and counseling about pain and pain management especially in the preoperative setting.</td>
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<td>Rom, Rosen, Shir, &amp; Sloman, (2005)</td>
<td>Postoperative pain continues to be under treated in large proportion of cases. This may be partly due to inaccurate pain assessment by nurses.</td>
<td>To compare nurses ratings of pain intensity and suffering in adult surgical patients’ own ratings of pain, and to investigate whether pain ratings were influenced by cultural and ethnic differences.</td>
<td>95 patients and 95 registered nurses. 52 men, 43 female average age 50 and ranged from 18-78. Nurse-22 men, 73 female average years experience 10 and ranged from 1-30.</td>
<td>Pain management, assessment.</td>
<td>Descriptive comparative</td>
<td>Short-form McGill Questionnaire, Visual analog scales times 3, 1. for overall pain intensity, 2. for suffering and distress associated with pain and 3. for patient satisfaction with their pain treatment. Demographic and cultural questionnaire.</td>
<td>Nurses significantly underrated pain compared to patients. There were no differences in patient and nurse satisfaction. Nurse education did not make a difference.</td>
<td>Nursing need better education in pain assessment. Further studies in nurse assessment of pain need to be conducted.</td>
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<td>Mac Lellan</td>
<td>Postoperative pain management remains one of the major challenges of caring for a surgical patient. Care has improved however studies still show that postoperative pain continues to be inadequately treated and that patients still suffer moderate pain scores</td>
<td>to introduce a nurse-led intervention to improve pain management after surgery and evaluate its effectiveness by measuring patients pain scores</td>
<td>800 Patients having surgery. A total of 9,138 pain scores were obtained. There were 5-12 hour time periods after each patients operation: 1, 0-12 hours, period 2, 13-24 hours; period 3, 25-36hours; period 4, 37-48 hours and</td>
<td>Postoperative pain, surgical patients, pain scores, nurse knowledge, VAS</td>
<td>Experimental; pretest, posttest</td>
<td>Visual Analogue Scale</td>
<td>Pain scores were aggravated for the 3-24 hour periods after surgery into days 1, 2, and 3. The t-test showed a significant reduction in mean pain scores for each day for the intervention hospital, and the reductions in pain scores were approximately equivalent to 0.73com</td>
<td>The study suggests that certain skills and knowledge are needed to effectively manage pain and strategies are needed to ensure that nurses have these skills and knowledge and use them in practice settings</td>
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to severe pain after surgery.

period 5, 49-59 hours.

on the 10 cm VAS scale, which is a reduction in the order of 7.3%. In the control hospital there were no reductions of mean pain score.

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<tr>
<td>Chan, Chung, McGillion, &amp; Watson (2004)</td>
<td>Inadequate controlled pain after ambulatory surgery is common</td>
<td>examine the postoperative pain, pain related interference with usual activities, and analgesic us of L/S cholecystectomy, hand and shoulder surgery patients at four periods during the first week after discharge</td>
<td>Sixty patients from each of the three surgical groups was use. It consisted of one hundred and eighty patients over a nine month period</td>
<td>Ambulatory surgery, pain, orthopedic surgery, Laparoscopic Cholecystectomy</td>
<td>Descriptive study</td>
<td>Brief Pain inventory-Short Form (BPI-SF) American Pain Society-Patient Outcomes Questionnaire (APS-POQ)</td>
<td>Pain decreased more quickly with hand and Laparoscopic Cholecystectomy than shoulder surgery Shoulder and Laparoscopic Cholecystectomy patients had more overall interference with activities of daily living</td>
<td>Successful discharge and effective postoperative pain managemen t at home require preoperative education, discharge planning with respect to expectations of pain and pain management after surgery. Discharge should also include information about nausea and constipation</td>
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Post-discharge Inventory

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<th>Source</th>
<th>Problem</th>
<th>Purpose</th>
<th>Sample</th>
<th>Framework or Concepts</th>
<th>Design</th>
<th>Instruments</th>
<th>Results</th>
<th>Implications</th>
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<td>Bjolseth, Dihle, &amp; Helseth, (2006)</td>
<td>Barriers to effective postoperative pain management, such as insufficient knowledge about pain, inadequate assessment and evaluation of pain and various attitudes to pain and its management, may contribute to inadequacy in postoperative pain management</td>
<td>Increase understanding about how nurses contribute to postoperative pain management in a clinical setting</td>
<td>Nine nurses were drawn from the two hospitals. Five nurses from hospital A and two from each unit from hospital B.</td>
<td>Communication, observation, pain management, postoperative pain</td>
<td>Qualitative interview</td>
<td>Observation and interview using semi structured observation and interview guides based on theory of pain and postoperative pain management. The interviews were audio typed. Too increase the validity and trustworthiness two researchers experienced in pain</td>
<td>A discrepancy appeared between the nurses own perceptions about how they health with postoperative pain management and how they actually performed it in the clinical setting</td>
<td>The findings underline the significant role of the nurses in postoperative pain management. Further research is needed to test intervention s designed to address complex pain problems in order to obtain more effective pain relief for patients experiencing</td>
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<td>Idvall (2004)</td>
<td>Good quality of care is considered to be the right of all patients and the responsibility of all staff within the hospital.</td>
<td>The purpose was to 1. Describe nurses’ assessments of how realistic they thought it was to effectuate good quality of care in postoperative pain management of inpatients, and 2. To compare these assessments with the quality of care actually delivered assessed by both patients and nurses</td>
<td>209 inpatients</td>
<td>Assessment, postoperative pain, quality of care</td>
<td>Descriptive survey</td>
<td>Strategic and Clinical Quality Indicators in Postoperative Pain Management</td>
<td>The results showed a discrepancy between what the nurses considered to be realistic to carry out and what they actually thought they had effectuated for the patients.</td>
<td>The discrepancies are complex and further research is suggested. The study highlights the problem of applying research evidence for postoperative pain management in actual clinical practices</td>
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<td>Jawaid, Malik, Muhammad, &amp; Shafiq, (2009)</td>
<td>One of the essential components of surgical patient care is effective postoperative pain control. Inadequate pain management, apart from being insensitive, may result in increased morbidity and mortality. Important goals for postoperative pain management are to</td>
<td>The purpose of the study was to assess the acute postoperative pain management by a surgical team and patient satisfaction</td>
<td>105 patients; 65 males and 40 females with a mean age of 35</td>
<td>Postoperative Pain, Acute, Satisfaction, Surgical Team</td>
<td>Descriptive study</td>
<td>Numerical Visual Analogue Scale (VAS)</td>
<td>At 12 hours postoperatively the mean of the scores at rest was 3.85 and the mean of the dynamic pain scores were 5.32. At 24 hours postoperatively the mean rest score was 2.84 and the dynamic pain score was 4.65. The female patients experienced more pain than the males. 47 patients were very</td>
<td>It is essential that regular assessments of postoperative pain are performed in the postoperative period. Clinical guidelines and quality programs are considered essential tools to enhance postoperative pain management.</td>
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minimize discomfort, facilitate recovery process, and avoid complications

satisfied, 42 moderately satisfied and 16 mildly satisfied with pain management

Inadequate management of postoperative pain has been difficult to establish owing to inadequate assessment, poor communication, and individual variability on the experience and exhibition of pain.

The purpose of this study was to survey the factors affecting patient satisfaction with postoperative pain management.

There were 77 patients; 29 male and 48 female average age of sixty three. 63 total nurses. 2 male nurses and 59 female nurses average age 41 to 50 and average year’s experience 11 to 15.

Pain management, patient satisfaction, postoperative pain, preoperative.

Descriptive study

Visual analogue scale (VAS)

There was a negative correlation between the scales Satisfaction and Preoperative bad feelings. There was also a negative correlation between patient’s age and preoperative information.

Education of nurses should be combined with patient education to create a common language for measurement of pain.
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<td>Disnard, McNeill, Sherwood, &amp; Starck (2003)</td>
<td>Postoperative pain is a significant problem for hospitals. Pain has been a low priority in overall postoperative care; until recent efforts were initiated to include pain as the fifth vital sign.</td>
<td>to determine the pain experiences as reported by surgical patients and what factors influenced patient satisfaction with pain management</td>
<td>258 surgical patients. Study A mean age 45, 72% female; Study B mean age 55 70% male</td>
<td>Pain management, postoperative pain, satisfaction</td>
<td>Co-relationshipal, descriptive</td>
<td>Modified American Pain Society patient outcomes questionnaire, demographic questionnaire.</td>
<td>Participants in the study reported high satisfaction with pain management even when experiencing moderate pain and pain that interfered with activity. Comments from satisfied participants indicted that timeliness of health care provider’s response to complaints of pain or need for preoperative teaching must help patients understand how to communicate unrelieved pain, enhance comfort, and improve satisfaction. Discharge teaching should focus on when to take pain medication, adverse effects, explanation about medications the patient will be taking at home, and</td>
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<td>change in medication combined with their interest and skillfulness in alleviating pain contribute to satisfaction with pain management</td>
<td>possible incompatibility medication combinations. Patient education is a determining factor in patient satisfaction</td>
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