

## CHAPTER 2

### LITERATURE REVIEW

This chapter explores the meaning of patients' information needs in perioperative care as perceived by patients and nurses. It highlights the level of needs of patients' information perceived by patients and nurses in perioperative care. Furthermore, this chapter will explore the concept of perioperative care, meaning of information, and patients' information needs in perioperative care. Finally, it will explore the main concept of perception and patients' and nurses' perception of patients' information needs and related factors.

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Summary

#### *Perioperative Care*

The term "perioperative nursing" means the description of scope and practice of nursing in a surgical setting. It elucidates the activities of a professional nurse during three

patient care phases. The three phases are preoperative, intraoperative, and postoperative (Meeker & Rothrock, 1995). Each phase refers to a particular period of time during the surgical experience and each requires a wide range of specific nursing behavior and function. The goal of perioperative nursing is to provide a standard of excellence in care for the client before, during, and after surgery. Perioperative care is nursing activities that are client-oriented. Therefore, nursing activities must be geared to meet the client's psychosocial needs as well as immediate physical needs; failing to do so may result in physiological problems.

Surgical intervention is a distinctive event for clients. Individuals face this particular event with their own values. Clients not only have specific expectations of surgical experience, but also have distinct hopes for the outcome of the surgery. The nurse must take an active part in the perioperative process in order to ensure quality and continuity of client care (White & Duncan, 2002). Surgical patients will go through these three phases. Each phase begins and ends at a particular point in the sequence of events that constitute the surgical experience. The preoperative phase begins when the decision to proceed with surgical intervention is made and ends with the transfer of the patient onto the operating room table (Smeltzer & Bare, 2003). The scope of nursing activities during this phase includes establishing a baseline evaluation of patients before the day of surgery, carrying out a preoperative interview, ensuring necessary tests, and providing preparatory education about recovery from anesthesia and postoperative care. On the day of surgery, the nurse reviews what has been taught to patients, such as preoperative teaching (for example patients have to practice deep breathing exercises), verifies patient's identity and surgical site, confirms the informed consent, updates the preoperative assessment and attends to family needs (Smeltzer & Bare, 2003).

The second phase is the intraoperative phase, which begins when the client is transferred onto the operating room table and ends when he or she is admitted to the postanesthesia care unit (PACU). The scope of nursing activities includes providing for the patient's safety, maintaining an aseptic environment, ensuring proper function of equipment, providing the surgeon with specific instruments and supplies for the surgical field, and completing appropriate documentation (Smeltzer & Bare, 2003).

The third phase is the postoperative phase which begins with the admission of the patient to postanesthetic care and ends with a follow-up evaluation in the clinical setting or at home. The scope of nursing care activities includes maintaining the patient's airway,

monitoring vital signs, assessing the effect of the anesthetic agents, assessing the patient for complications, providing comfort, and pain relief. These nursing activities focus on promoting the patient's recovery, initiating the teaching, follow-up care, and referrals essential for recovery and rehabilitation after discharge (Smeltzer & Bare, 2003).

Throughout these phases, nurses use nursing process as a framework to guide the delivery of nursing care. Assessment, the first step of nursing process, is conducted at the preoperative phases to identify individual information and learning needs. This is done to determine the patients' information needs before surgery. This activity helps in identifying physical, psychological, social, and spiritual needs of the surgical patient. Providing the information according to a patient's needs will enhance the patient's compliance with the treatment regime. Information from the perioperative nurse can affect the patient's outcomes (Smeltzer & Bare, 2003).

### *Information*

The basic meaning of information is knowledge about something (Cambridge International Dictionary, 1995). Kruger (1990, as cited in Leino-Kilpi, Iire, Suominen, Vuorenheimo, & Valimaki, 1993) stated that this information is important for a number of reasons: 1) increasing emphasis is now being given to self-care, 2) patients' right to self-determination, 3) greater general public knowledge about illness than ever before, 4) the average hospital stay is shorter, and 5) new legislation concerning the right of hospitalized patients. The purpose of information is to make patients aware of their own health, treatments, and consequences. Information will help decrease a sense of uncertainty that goes with most illnesses and increase feelings of security. According to Leino-Kilpi, Iire, Suominen, Vuorenheimo, and Valimaki (1993), this perspective is viewed as information seeking and it will help patients in making the decision- regarding their health problems.

Individuals have their own way of understanding health and illness. Knowledge and structure of information are constantly shaped by the process in which individuals select, adapt, and apply knowledge from the different sources of information.

### *Perspective of Information*

According to Leino-Kilpi, Iire, Suominen, Vuorenheimo, and Valimaki (1993), there are two perspectives on the meanings of information given to the individual patient: 1) ideological and 2) practical. The ideology perspective stresses the role that information plays from the point of view of patient autonomy, dignity, and self-respect. According to

Dennis (1990), patients have a right to know and want to know about health matters concerning their bodies. Fleming (1992) stated that the ideology perspective might also be described as emancipatory. The purpose of information is to make patients aware of their health, different treatments, alternatives, and consequences. Fleming also said that information helps to dispel the sense of uncertainty and insecurity that accompany most illnesses. Lenz (1984, as cited in Leino-Kilpi, Iire, Suominen, Vuorenheimo, & Valimaki, 1993) described this perspective from the patient's point of view that information seeking is part of a decision-making process proceeding from stimulus to the decision regarding the adequacy of the information required.

The practical point of view underlines the role of information in the implementation of nursing care. Leino-Kilpi, Iire, Suominen, Vuorenheimo, and Valimaki (1993) mentioned that information is essential to the success of nursing care. Patients who understand more about their condition will also show closer compliance to their treatment and work to advance the ultimate goals of nursing care. In this respect, it will assist patients to become active participants in their own care, and ensure patients have the necessary self-care skills to prevent complications.

#### *Function of Information*

Information serves an important function for surgical patients. According to Mills and Sullivan (1999), who studied the importance of information giving for patients newly diagnosed with cancer, the main functions or roles of information given to patients are: 1) gaining control, 2) reducing anxiety, 3) improving compliance (Hinds, Streater, & Mood, 1995), 4) creating realistic expectations (Galloway et al., 1997; Hinds, Streater, & Mood, 1995), 5) promoting self-care and participation (Galloway et al., 1997; Hinds, Streater, & Mood, 1995), and 6) generating feelings of safety and security. Although the study has some limitations, it collectively emphasized that information giving leads to enhanced control and self-efficacy, promoting self-care, assisting in the amelioration of symptoms and decreasing anxiety.

#### *Timing of Providing Information*

The best time to provide education or information is still being argued. With the increasing cost of health care, hospital time for preoperative period is becoming increasingly shorter. Most institutions admit patients in the afternoon prior to surgery or in some elective cases on the morning of surgery. It is difficult for nurses to arrange preoperative education and provide information in the limited time available. This is why more hospitals may begin

to provide information or preoperative education prior to admission for surgery. The issue of the best time for learning this information has not been adequately studied. According to Lepczyk, Raleigh, and Rowley (1990), sufficient time to assimilate information is important for the adult learner. In their study on timing of preoperative patient teaching, they found patients who received preoperative teaching before admission would have increased knowledge and in turn, reduced anxiety level. The timing of education did not affect the level of knowledge or anxiety displayed by the patient. Spalding (1995) found information given before admission enables patients to gain an insight into what the hospitalization period will involve and prepare for their discharge needs. Cupple (1991) conducted an experimental study on preoperative educational intervention with patients undergoing cardiac surgery. Subjects in the experimental group who received both preadmission and post-admission teaching had significantly higher preoperative knowledge levels, more positive mood states, and more favorable physiological recoveries than did those in the control group. It was concluded that giving reinforcement as frequently as possible leads to increased patient knowledge about the surgery.

#### *Method of Providing Information.*

According to Mills and Sullivan (1999), the mode by which information is delivered is an important consideration. Many methods of providing preoperative information have been used over the years. In general, the three most common methods are audiovisual, verbal, and written. Each type has advantages and disadvantages. Griffiths and Leek (1995) in their evaluation of the different methods of information giving, reported that written information was considered by patients and nurses to be more effective than other types of information. Furthermore, written information may be particularly beneficial to patients now, when shorter hospital stays reduce the amount of time doctors and nurses have to spend discussing concerns and providing facts. A study by Caunt (1992) reported that the type of medium used had no significance, as long as the information was presented clearly. In contrast, Webber (1990, as cited in Walker, 2002) reported that a combination of methods should be used, as this will create a more interactive style of teaching and providing information. Use of videos offers a reflective situation that enhances the individual's ability to cope through reducing the anxiety. The use of verbal information gives the patient a chance to ask questions and clarify specific points, whereas written information has the advantage that it can be reread at any time.

Another way of providing information to surgical patients about impending surgery is by a theatre nurse. The nurse will visit patients in the ward during the preoperative phase. Martin (1996) investigated a preoperative visit in a group of 40 surgical patients with the aim of alleviating anxiety by providing information. The theatre nurse visited the intervention group preoperatively. Martin concluded that the visited group demonstrated a further reduced State-Traits Anxiety Inventory (STAI) score after the intervention compared to the control group. The findings suggested that a preoperative visit from an anesthesiology nurse makes a significant difference. Those patients who were visited exhibited lower anxiety scores and displayed fewer signs and symptoms that could be related to anxiety.

Therefore, there is no single method that can be recommended for providing information to surgical patients. The most common methods of giving information are in written and oral form. However, according to Walker (2002), combining the methods of giving information is the most effective.

#### *Outcomes of Providing Information*

Few studies have been published on the meaning of information and knowledge or on the effectiveness of patient education. The results have been neither systematic nor consistent, however some interesting reviews have been published. According to Brearley (1990, as cited in Leino-Kilpi, Iire, Suominen, Vuorenheimo, & Valimaki, 1993), scholars have more or less agreed that as far as patients are concerned, information has positive use value. Information and education enables patients to 1) cope with their health problems and stress, 2) master medical crisis better, 3) recover from the surgical problem, and 4) can lessen symptoms from the illness. However, there are also some conflicting results, according to which information can increase patients' anxiety.

The evidence suggests that information has a positive effect on patient's self-care and on cost-effectiveness from the health education approach to patient care. One meta-analysis of the clinical and cost-saving effect of psychoeducational intervention with surgical patients by Devine and Cook (1986) suggested that it is important to incorporate psychoeducational intervention into nursing practice. They found that increasing psychoeducational teaching indirectly would affect cost saving by leading to a decreased in the length of hospital stay. If patients are discharged from the hospital sooner, the total cost of hospitalization decreases. A study by Krupat, Fancey, and Cleary (2000) found that information received by surgical patients was an important determinant of patient

satisfaction, and may result in cost containment through earlier patient discharge (Henderson & Zernike, 2001).

Information has also been shown on many occasions to reduce emotional and psychological distress (Dodds, 1993 as cited in Walker, 2002). It has also proved to be effective in improving patient outcomes after surgery (Devine, 1992). Patients had frequently reported that they were not satisfied with the quality and quantity of preoperative preparation that they received while in hospital (Webber, 1990 as cited in Walker, 2002). However, meta-analysis based on the effect of psychoeducational care found that 81% of research studies showed beneficial outcomes and 40% of the studies showed a reduction in hospitalization by an average of 1.5 days for the treatment group (Devine, 1992).

Who is supposed to provide information to the patients? Research continues to show that nurses are still not a significant source of information for many patients. Patients indicate that after doctors, nurses were their second most preferred source of information (Oermann, Harris, & Dammeyer, 2001).

#### *Patients' Information Needs in Perioperative Care*

Surgery is a stressful and complex event to the individual. Stress is a common phenomenon faced by surgical patients. Information on what is going to happen to them is important to allay stress. Not all patients want to know information. It depends on the individual coping with the stress. Usually patients with low coping mechanisms do not seek information. They feel more frightened if they know more about the situation. Certain patients would like to have more information regarding their health. They feel more confident and safe if they know more information. These patients believe that this information will help them in the process of care. According to Lepaczuk, Raleigh, and Rowley (1990), providing information about the surgical event facilitates a process of a mental 'rehearsal', enabling the individual to develop reality-based expectations and plans for coping with the perceived danger.

According to Durity, Wyness, and Durity's study (2003), information need is defined as the lack of knowledge about specific aspects of general perioperative care such as preoperative preparation, operating room, expected length of hospitalization, length of stay in locations such as the operating room, and length of surgery. The findings revealed that the information needs varied. The findings also supported the importance of examining the needs of individual patients. The type and amount of information should be based on

individual needs, on assessment of whether they are knowledge seekers, non-knowledge seekers, or are ambivalent about seeking knowledge. Knowing which category they are in will help the nurse to provide the information according to their needs. Their experience will be more meaningful in coping with their health problem.

One of the main challenges for nursing research is to explore the information that is available to people who are trying to cope with health problems and clarify the exact role of information. According to Lenz (1984, as cited in Leino-Kilpi, Iire, Suominen, Vuorenheimo, & Valimaki, 1993), little attention has been given to the active role of clients in seeking and acquiring information. Lenz suggested that the focus of information must be on the meaning of information to clients. Perioperative information is important for surgical patients. It is usually delivered to the clients in the preoperative phase. During this time, it is important to emphasize education and give the information that surgical patients would like to know about their condition. This will help patients to have information before facing the real situation. This knowledge will allow patients to anticipate and rehearse the stressful event they are about to encounter and thereby to cope more successfully (Krupat, Fancey, & Cleary, 2000).

Most studies (Bernier, Sanares, Owen, & Newhouse, 2003; Brumfield, Kee, & Johnson, 1996; Mordiffi, Tan, & Wong, 2003; Yount, Edgell, & Jakovec, 1990; Yount & Schoessler, 1991) used the term preoperative information, preoperative instruction, preoperative education or teaching, and preoperative learning needs. The term preoperative teaching was preferred to perioperative information. Preoperative teaching is one way of giving information to patients. It includes teaching certain skills and giving psychosocial support while patients are undergoing the three phases of perioperative care. According to Hathaway (1986), preoperative teaching is defined as providing patients with information about the perioperative experience. Preoperative teaching should be offered at the preoperative phase either at the clinic or immediately after admission to the ward, and should be given throughout the perioperative period.

Although previous studies used preoperative teaching, most studies (Bernier, Sanares, Owen, & Newhouse, 2003; Hume, Kennedy, & Asbury, 1994; Jacobs, 2000; Lithner & Zilling, 2000; Mordiffi, Tan, & Wong, 2003) do not cover information needed by surgical patients in the three phases of perioperative care. The focus was on certain aspects of perioperative care. For example, Hume, Kennedy, and Asbury (1994) looked at only the anesthesia throughout the perioperative care, investigating the information needed



by surgical patients regarding anesthesia during perioperative care. Mordiffi, Tan, and Wong (2003) determined the importance of the five facets of preoperative information including: 1) details of the procedure, 2) preoperative preparation, 3) operating room environment, 4) postoperative expectations, and 5) details of anesthesia. Another example, Jacobs (2000), looked at discharge information. Thus, most of the studies in the literature do not comprehensively cover information in the perioperative period.

Most of the studies regarding information needs explored specific conditions such as congestive heart failure (Hagenhoff, Feutz, Conn, Sagehon, & Moranville-Hanziker, 1994), myocardial infarction (Turton, 1998; Timmins & Kaliszer, 2003), cancer patients (Leydon, et al., 2000), intensive care settings (Paul, Henry, & Cabrelli, 2003; Watts & Brooks, 1997), and other specialties such as orthopedics (Johnsson, Salantera, Msosci, & Leino-Kilpi, 2002)). The current study uses the term perioperative information, which includes types and dimensions of teaching: information - situational, sensation-discomfort, and patients' role; psychosocial support, and skills training needed by the surgical patients. These will cover the three phases of perioperative care. This information enables surgical patients to develop an overall picture of the entire events of the three phases of perioperative care. This is also the first step to identify the information needed by surgical patients. This information can be used to develop a preoperative teaching guideline that can be used for surgical patients. Therefore, the present study explores the patients' information needs in perioperative care in Malaysia. The scope of the study is wider. It explores the five dimensions of information that surgical patients need throughout the three phases of the perioperative period. This information is needed to increase patients' knowledge so that they can manage themselves throughout the perioperative period.

### *Three Perioperative Phases*

Perioperative information is associated with the patient's surgical experience during the perioperative period. Information needed is relevant to the three phases of surgical experience at the preoperative, intraoperative, and postoperative phases. The information described a sequence of events that surgical patients experience in each phase. However, the information needed varies according to the events that they undergo in each phase. Some of the information is needed throughout the three phases. Overall, this information can be divided into five dimensions as proposed by Yount, Edgell, and Jakovec (1990). These five dimensions of information are situational or procedural information, sensation-discomfort information, patients' role information, skills training information and

psychosocial support information. Surgical patients need information to help them cope with perioperative experiences effectively. Perioperative nurses should make sure that surgical patients get the information according to their needs at each phase of perioperative care.

### *Five Dimensions of Patients' Information*

Patients' information needs in this study refers to the information that every surgical patients wants to know. They receive the information from the health care providers during perioperative care. The five dimensions of perioperative patients' information needs are: 1) situational or procedural information, 2) sensation-discomfort information, 3) patients' role information, 4) skills training information, and 5) psychosocial support information. These can be represented in each phase of perioperative care. These are the five dimensions of information as proposed by Yount, Edgell, and Jakovec (1990). The detailed descriptions of each dimension are as follows:

#### 1. Situational or procedural information

Situational or procedural information is defined as information pertaining to explanations about nursing care activities, equipment, events, and their time sequences. Patients will experience this in perioperative care (Yount, Edgell, & Jakovec, 1990). It includes information related to events expected to be experienced during surgical procedures, including nursing care activities, application, and use of medical equipment and technology. This also includes information on the timing and sequence of events (Bernier, Sanares, Owen, & Newhouse, 2003; Rothrock, 1989).

#### 2. Sensation-discomfort information

Sensation-discomfort information is defined as descriptions of what the patient will feel during the perioperative period (Yount, Edgell, & Jakovec, 1990). This information describes what patients may feel, see, or hear in relation to the surgical procedure (Bernier, Sanares, Owen, & Newhouse, 2003; Rothrock, 1989). According to Yount and Schoessler (1991), sensation-discomfort information items include statements about how or what the patient might feel and means to alleviate discomfort. The following is an example taken from the patients' perception of information needs questionnaire: "How much you need to know about the sensation of discomfort from the tubes in your throat or nose?"

#### 3. Patients' role information

Patients' role information is defined as activities the patients would be expected to perform in order to achieve treatment goals (Yount, Edgell, & Jakovec, 1990). This

information relates to the patients' behavior as active partners in achieving goals and recovery (Bernier, Sanares, Owen, & Newhouse, 2003).

#### 4. Skills training information

Skills training information is defined as explanations and guided practice of skills such as coughing and deep breathing that aid with postoperative recovery (Yount, Edgell, & Jakovec, 1990). It encompasses an explanation of special skills and provides an opportunity for patients to practice those skills before surgery as a means of aiding postoperative recovery (Bernier, Sanares, Owen, & Newhouse, 2003).

#### 5. Psychosocial support information.

Psychosocial support information is defined as patient-nurse interactions that enable patients to deal with anxiety and enhance coping (Yount, Edgell, & Jakovec, 1990). It pertains to the interaction between patients and care providers, which is aimed at helping patients deal with anxiety, concerns and fears about surgery (Bernier, Sanares, Owen, & Newhouse, 2003; Rothrock, 1989).

The five dimensions of patients' information needs may be integrated into three phases of the perioperative period. Many studies on preoperative teaching (Bernier, Sanares, Owen, & Newhouse, 2003; Brumfield, Kee, & Johnson, 1996; Reilly & Cheryl, 1998; Yount, Edgell, & Jakovec, 1990; Yount & Schoessler, 1991) divide the information into five dimensions. They did not specify the five dimensions into three phases of perioperative period. In this current study, these five dimensions of information needs are integrated into preoperative, intraoperative, and postoperative phases.

### *Integration Five Dimensions of Patients' Information at Three Phases of Perioperative Period*

Surgical patients need five dimensions of information provided in different ways at each phase of the perioperative period. Some information may be needed throughout the three phases while some is needed only at the preoperative and postoperative phases of the perioperative period. Patients may need specific information at specific periods of the perioperative care. The need for information will be discussed according to the three phases of the perioperative period.

#### 1. Preoperative Information

The preoperative phase is undoubtedly one of the most traumatic periods of a patient's hospital admission. Many patients suffer from severe anxiety (Radcliffe, 1993) when facing surgery. They face many things including death and disfigurement. By

answering a few questions, the nurse can help the patients to overcome many of their fears. The preoperative phase is the most important phase where information and teaching is conveyed to surgical patients. In this phase, surgical patients need information to prepare them before facing the real situation. They usually experience stress and anxiety during this phase. Information and teaching will help them to cope with the stress and anxiety.

Most studies involving the preoperative phase have focused on preoperative information and preoperative education (Dalayon, 1994; Lepczyk, Raleigh, & Rowley, 1990; Lookinland & Pool, 1998). They also studied the content, method, and timing of preoperative teaching program for surgical patients. Dalayon (1994) evaluated the components and the adequacy of preoperative patient teaching in Kuwait. She found that the content or learning component provided was not congruent with what patients perceived as important. Nurses felt patients need to understand the importance of early ambulation, deep breathing, and coughing exercises, understand preoperative procedures, fasting and changes in food intake and information about the care of the operative wound after discharge. However, patients had different priorities. They wanted to know how to care for their wounds at home, followed by demonstration of turning in bed, getting out of and back into bed, explanations of frequent measurements of vital signs, and care of the operative wound in general. They also preferred to know more about the possible complications and future effects of their operation. Regarding the adequacy of patient teaching, findings from this study showed that preoperative teaching was less than adequate. Patients felt that they received adequate teaching about what must be done for the operation to take place, except for the instruction on early ambulation. On the other hand, they were given superficial information on other areas.

In summary, surgical patients need situational or procedural and psychosocial support information to cope with their anxiety at the preoperative phase. On the contrary, surgical nurses perceived that patients need information regarding skills training for preparation and implementation at the postoperative phase. However, patients actually need information on the situational or procedural information followed, by skills training information. They were more concerned with how they are going to manage themselves with the surgery at the postoperative phase.

## 2. Intraoperative Information

Researchers have studied preoperative and postoperative nursing considerably more than intraoperative nursing. Patients' perspectives of preoperative and postoperative nursing

were easier to examine because in those phases patients have less medication and can therefore participate in their care. While in the intraoperative phase, patients were usually sedated before the operation was performed. Previous studies found that surgical patients lacked information about the intraoperative phase. Information given through preoperative teaching did not focus on the intraoperative phase. This has made intraoperative information important for the patients to know (Caldwell, 1991a). Patients would like to know details about what will happen to them during the intraoperative phase. Usually information regarding anesthesia and surgery were the types of information most wanted by patients. This was because they will be anesthetized for the operation. They are not aware of what will happen to their bodies at that time. Many studies (Hankela & Kiiikkala, 1996; Hume, Kennedy, & Asbury, 1994; Mordiffi, Tan, & Wong, 2003; Williams, 1993) have reported that patients were usually more anxious to know about anesthesia and surgery in the preoperative phase. According to Caldwell (1991b), in her review on surgical outpatient concerns ( $n = 76$ ), patients had concerns about the process of surgery including the surgical procedure itself, and fear of anesthesia. Thirty percent of patients listed anesthesia as one of their concerns. Furthermore, patients were more afraid about professional competence of the surgeon than about the surgical procedure itself. Therefore, nurses as patient advocates should enable patients to receive detailed information regarding surgery and anesthesia from the doctor to help the patients understand the given information.

Williams (1993) looked at patients' knowledge of operative care. The study investigated knowledge of perioperative events in 111 elective surgical patients. Six topics were covered: 1) the operation, 2) the anesthesia, 3) time spent in the operating theatre, 4) amount of post-operative pain, 5) duration of hospital stay, and 6) time required to return to normal fitness. Seventeen percent of patients' answered that they received enough information about anesthesia, and 68.5% said they received enough information about the operation. Sixty percent said they had been given information concerning length of hospital stay, while 23.4% had been told how much pain to expect. However, patients wished for more information about the operation (41.4%) and time needed to return to normal fitness (69.4%).

Lonsdale and Hutchison (1991) did a study on the desire of patients in Canada and Scotland for information about anesthesia. They found that patients knew little about their illness and associated tests and were dissatisfied with the amount of information they

received from the medical profession. Patients also placed a low priority on the other unpleasant aspects of anesthesia. A moderate priority was assigned to common complications and to the topic of pain and analgesia. The high priority placed on information about eating and drinking and mobility suggested that patients were most concerned about a clear timetable to recovery. Meeting the anesthetist before an operation received the highest score in both countries. They saw this as a chance to obtain important information, or merely as an opportunity to assess the person to whom they were entrusted.

Hankela and Kiikkala (1996) studied the expectations and experiences related to intraoperative nursing care of patients who underwent hip replacement procedures with regional anesthesia. Although patients were conscious during the operation, they appreciated being informed continuously about what was occurring during their surgical procedures. Many patients felt uneasy and afraid about the operating room environment, and this resulted in the patients feeling insecure. They wanted the nurses to be active and show initiative in communicating information because patients do not always know the pertinent questions to ask. Patients who will be anesthetized reported preoperative anxiety and desire for information regarding what they will experience during the operation. Furthermore, research in the intraoperative phase is more often related to operating room staff members and the function of operating room nursing than to surgical patients.

In summary, surgical patients wanted to know details regarding anesthesia and surgery. They wanted to know about their feelings while being anesthetized before surgery and what will happen to them during surgery. They also feel fear of the operating room environment. This information falls into situational or procedural information, and sensation-discomfort information. They also need psychosocial support information to cope with fear of what was going to happen to them during this phase. How much information surgical patients received at the preoperative phase will have a great effect on them at the postoperative phase. They will be able to cope better with their condition, prevent possible complications, recover faster and have shortened postoperative hospital stays.

### 3. Postoperative Information

Postoperative care usually focuses on preventing complications after surgery. Patients are encouraged to participate in their nursing care to empower self-care. They should receive information at the preoperative phase. Preoperative information is vital in the nursing care of surgical patients, especially for postoperative care. Without information, the patients are unable to take part in postoperative care. They do not know the importance of

postoperative mobilization. This will make them remain passive at the postoperative phase, and will put patients at a high risk of postoperative complications (Lithner & Zilling, 2000). Lithner and Zilling (2000) in a study on pre- and postoperative information needs of patients scheduled for open cholecystectomy ( $n = 50$ ), found that the most requested information was related to anxiety-creating factors such as pain and postoperative symptoms after surgery. The study also shows that patients wanted to receive large quantities of information both at admission and at discharge.

Another important type of information in the postoperative phase involves discharge. Advanced technological changes and economic factors have contributed to a shortened length of hospital stay for surgical patients. There is limited time for nurses to teach patients to manage their own care prior to discharge. Consequently, postoperative information is given at the preoperative phase. Research findings demonstrate that patients often perceived that they were not adequately prepared for discharge (Jacobs, 2000).

A qualitative, descriptive study by Deoring, McGuire, and Rourke (2002) on information desired by patients recovering from cardiac surgery found four major themes from the thematic analysis. The four major themes were: 1) being satisfied, 2) not being cared for, 3) having physical needs unmet, and 4) having informational needs unmet. Most patients identified specific needs for information. They wanted specific instruction about how to get up and move in bed after surgery. They also wanted more information about breathing exercises, knowing the difficulty in communicating and getting detailed explanation of surgery. Patients also complained of unmet informational needs. During the interview, most patients wanted general information to help them put their surgery into perspective. They would like to have a diagram of the surgery for all patients. Additionally, patients would like to be better prepared regarding incisions, have medical staff take more time to explain things to patients, and felt that doctors should explain details about surgery and give patients a broader perspective. Hughes (2002) suggests that information given to patients should be reinforced preoperative and postoperatively by nurses to ensure that patients can comply with any necessary care following discharge from the hospital.

#### *Measurement of Patients' Information Needs*

The research instrument in this study was constructed from three resources (Bernier, Sanares, Owen, & Newhouse, 2003; Meeker & Rothrock, 1995; Yount, Edgell, & Jakovec, 1990). It was organized into three phases of perioperative period and integrated into five dimensions of perioperative information. The 64 items covering these

five dimensions are: 1) situational or procedural information (30 items), 2) sensation-discomfort information (13 items), 3) patients' role information (6 items), 4) skills training information (8 items), and 5) psychosocial support information (7 items). The instrument was organized into three phases of preoperative, intraoperative, and postoperative phase. integrated with five dimensions of the information as a matrix in Table B1 (Appendix B).

The original instrument, perception of preoperative teaching, developed by the nursing research committee at Providence Medical Center, Portland, Oregon had 73 items representing five dimensions of preoperative information. This instrument contains 73 specific teaching topics that reflect the five dimensions of preoperative teaching. The first dimension consists of 11 items that measure psychosocial support. The second dimension uses 27 items to measure situational information. The third dimension consists of 11 items measuring patients' role information, and the fourth dimension uses 13 items measuring sensation-discomfort information. The fifth dimension consists of nine items that measure skills training. The reliability of the total scale according to Cronbach's alpha ranged from .82 to .94 for each the five dimensions.

Two of the resources (Bernier, Sanares, Owen, & Newhouse, 2003; Yount, Edgell, & Jakovec, 1990) used the perception of preoperative teaching questionnaire in their studies modified to fit their studies. Yount, Edgell, and Jakovec (1990) investigated nurses' perceptions about preoperative teaching. Yount and Schoessler (1991) used the instrument again on the patients' and nurses' perceptions of preoperative teaching. Yount, Edgell, and Jakovec (1990) used seven items. Another seven items were also found in Yount and Schoessler (1991). However, most of the items already existed in Bernier, Sanares, Owen, and Newhouse (2003). Only three items were adapted from Yount, Edgell, and Jakovec (1990) into the current study.

Bernier, Sanares, Owen, and Newhouse (2003) modified the original instrument for use in their study. Only 26 items were selected as essential information for the study. The reliability of the total scale according to Cronbach's alpha ranged from .84 to .88. These 26 items represent: eleven items addressing situational or procedural information; six items addressing psychosocial support, four items addressing sensation/discomfort information, four items addressing patients' role information, and one item addressing skills training. All these 26 items have been adapted into the current study.



Another resource used in the present study was from Meeker and Rothrock (1995). They used preoperative information from Wallace (1985, as cited in Meeker & Rothrock, 1995). Wallace classified preoperative information into four broad categories: 1) procedural, 2) sensory/temporal, 3) coping, and 4) reassurance. The present study modified the statements under procedural information and sensory and temporal information of preoperative teaching. There are 16 statements from procedural information and 17 statements from sensory and temporal information. The researcher rearranged the statements from the sensation according to the definition used in the current study. Ten statements from sensory were put into situational to fit with the definition used by the researcher in each dimension in current study. A total of 27 statements has been adapted into the current study.

The researcher developed eight additional items to cover all information needed by surgical patients in three phases of the perioperative period. The researcher constructed the instrument because the original instrument could not be obtained.

In this study, patients identified the information they perceived as needed by them. Nurses identified the information that they perceived as needed by the surgical patients. They provide this information to patients under their care. Patients and nurses independently rated the level of needs of patients' information that they perceived the patients need or may need.

The 5-point Likert-type scales were used in this instrument to identify the level of needs of information required by surgical patients. Patients and nurses indicated the level of needs they perceived as being needed by surgical patients. The measurement of patients' information needs was coded as "1" not needed, "2" slightly needed, "3" moderately needed, "4" mostly needed, and "5" extremely needed.

### *Patients' and Nurses' Perceptions of Patients' Information Needs and Related Factors*

This section presents a review of the literature related to the meanings of perception, and patients' and nurses' perceptions of patients' information needs and related factors that influence the perception in patients and nurses.

#### *Perception*

Perception is defined as the process by which we select, organize, and interpret sensory stimulation into a meaningful and coherent picture of the world (Hamachek, 1971 as cited in Sundeen, Stuart, Rankin, & Cohen, 1994). Individual needs, values, beliefs,

and self-concepts are vital factors in determining how an individual views his/her life space or surroundings. How people view themselves in relation to others and their own self-concepts are other factors strongly influencing perception.

According to King (1981, p.24) perception is “a process of organizing, interpreting, and transforming information from sense data and memory.” King also states that perception is an awareness of people, objects, and events. Perception is a process of human transactions with the environment. Perception is each person’s representation of reality. Although nurses and patients are in the same world and have some common experiences, individuals differ in what they select to enter their perception. In the concept of perception in nurse-patient interaction, King proposed there are many factors that may influence these perceptions, including biological aspects, past experiences, socioeconomic groups, and educational background. Although many studies have examined factors related to patients or nurses’ perceptions, in this study the researcher did not examine factors affecting the patients’ information about perioperative care. This study is more concerned with the importance of perioperative patients’ information to enhance the structure of preoperative teaching programs in surgical wards.

#### *Patients’ and Nurses’ Perceptions of Patients’ Information Needs*

Various studies have examined patients’ and nurses’ perceptions about preoperative information and education (Bernier, Sanares, Owen, & Newhouse, 2003; Brumfield, Kee, & Johnson, 1996; Mordiffi, Tan, & Wong, 2003; Reilly & Cheryl, 1998; Yount, Edgell, & Jakovec, 1990; Yount & Schoessler, 1991). No studies have focused on the five dimensions of patients’ information needs in the three phases of perioperative care. The following review presents those nursing studies which identify the importance of patients’ information needs as perceived by patients’ and nurses’ in perioperative care.

A number of studies of the content of information used five dimensions: 1) situational or procedural information, 2) sensation-discomfort information, 3) patients’ role information, 4) skills training information, and 5) psychosocial support information (Bernier, Sanares, Owen, & Newhouse, 2003; Brumfield, Kee, & Johnson, 1996; Reilly & Cheryl, 1998; Yount, Edgell, & Jakovec, 1990; Yount & Schoessler, 1991). Four of the studies (Brumfield, Kee, & Johnson, 1996; Reilly & Cheryl, 1998; Yount, Edgell, & Jakovec, 1990; Yount & Schoessler, 1991) used similar instruments but focused on different clinical settings.

Brumfield, Kee, and Johnson (1996) modified the instrument, examining the importance of preoperative teaching content by patients ( $n = 30$ ) and nurses ( $n = 29$ ) in ambulatory surgery settings. Patients and nurses rated the importance of information by using a 5-point Likert-type scale ranging from 1 "not important" to 5 "extremely important". Patients ranked situational information as most important and skills' training as the least important, whereas, nurses ranked psychosocial support as the most important and the sensation-discomfort as least important. The pooled  $t$ -test that was used to compare patients' and nurses' composite scores for each of the five dimensions of preoperative teaching did not detect any significant group differences.

A study by Bernier, Sanares, Owen, and Newhouse (2003) on preoperative teaching received and valued in the day surgery setting revealed that 92% represents the highest rating on situational or procedural information, with patients' role information rated at 87%, and psychosocial support at 87%. Lower ratings were given for sensation/discomfort information (55%) and skills training (42%). Patients also cited information classified as situational/procedural information as most helpful (35%) in their open-ended responses.

Previous study by Yount and Schoessler (1991) on perception of preoperative teaching found that postsurgical patients ( $n = 116$ ) and nurses ( $n = 159$ ) differed in ordering priorities only in the placement of skills training. Nurses placed skills training as second in importance, whereas patients placed it last in importance. Patients rated situational information as second in importance between five dimensions of information. They reported receiving psychosocial support most frequently, followed in descending order by situation, role, sensation, and skills training. Nurses rated situation information as being third in importance. Results of the  $t$ -test indicated that nurses assigned more importance to psychosocial support and skills training, while patients assigned more importance to sensation-discomfort information.

According to Yount and Schoessler (1991), patients and nurses' ranked psychosocial support as the most important dimension of instruction. However, patients and nurses did not perceive the same priority for order dimension of instruction. This discrepancy in ordering of importance indicates that for the instruction to be effective, the perceived priorities of instruction should be identified and addressed. They recommended learning needs assessment tools should be developed for use by prehospital and hospital personnel to determine patients' needs. This would allow nurses to better focus on the

patients' perceived needs. Nurses should focus on the psychosocial support component, reinforce situational information, review skills training, and correct misconceptions. In addition, nurses should assess the patient's level of anxiety and adjust teaching plans to focus more on psychosocial content if the patient displays a moderate to high level of anxiety.

For sensation-discomfort information, a visit by the operating room nurse and postanesthesia nurse will establish rapport and answer questions about patient in the immediate postoperative period, helping patients' and family members to understand what will occur, reduce fear and improve their ability to cope with surgery. This visit will help relieve the patients' and family's fears of surgical events. Patients also perceived the visit as being an offer of psychosocial support (Yount & Schoessler, 1991).

Reilly and Cheryl (1998) explored nurses' ( $n = 54$ ) and patients' ( $n = 45$ ) perceptions of outpatient preoperative education needs. They slightly modified the preoperative teaching questionnaire. They found no significant differences except for the skills training dimension ( $p = .27$ ).

Yount, Edgell, and Jakovec (1990) looked at professional nurses' perceptions about what types of information were most important in preoperative teaching. The nurses ranked from most important to least important such items as psychosocial, skills training, situational information, patients' role, and sensation/discomfort. The mean rating for all five types of preoperative teaching ranged from 3.27 (moderately important) to 4.20 (important). This relatively narrow variation indicated that nurses viewed all types of teaching as important and necessary for the surgical patients.

Interestingly, both of the studies (Bernier, Sanares, Owen, & Newhouse, 2003; Yount & Schoessler, 1991) yielded similar results for the subscales, giving the highest ratings for preoperative teaching, situational/procedural information, patients' role information, and psychosocial support. The situational, patients' role information and psychosocial support information were the most important dimensions identified by both nurses and patients in most of the studies. This may reflect patients' awareness that this information will help them through their surgical procedures and prepare them for postoperative recovery, which they must manage independently.

Mordiffi, Tan, and Wong (2003) determined patients', nurses', and physicians' perceptions of preoperative information. The study used a multifaceted approach, which included: 1) details of the procedure, 2) preoperative preparation, 3) operating room

environment, 4) postoperative expectations, and 5) details of anesthesia to determine the perception of preoperative information. They found a gap in information provided about the details of anesthesia and operating room environment. The study found that inadequate information received by patients seems attributable to health care providers' misunderstanding the information patients want.

In Hong Kong, Henderson and Chien (2004) explored Chinese surgical patients' information needs. They classified information into eight items based on the right of patients to information as listed in the Patients' Charter in Hong Kong, including items such as: 1) personal medical history and details in relation to the proposed surgery, 2) rationale of why the surgery is necessary, 3) treatment alternatives and their benefits and risks, 4) the procedures of the surgery, 5) short-term outcomes, 6) possible complications, 7) effect on daily living, and 8) warning signals of complications and seeking medical help. Patients rated it using a 5-point Likert scale. They found that patients highly rated the needs for all types of information. They rated most highly the need for information about the signs and symptoms indicating postoperative complications and when to seek medical help. They gave lower ratings to the importance of surgery, and explanation of the procedures.

Overall, there were discrepancies between the nurses' and patients' importance rankings in the earlier study of hospitalized surgical patients. Patients have similar education needs regardless of surgical setting, but nurses view patients' needs differently according to settings (Brumfield, Kee, & Johnson, 1996).

All the above studies indicated a different in perceptions between patients and nurses. It can be concluded that most patients might not have received as much information as they wanted. As Mordiffi, Tan, and Wong (2003) found in their analysis, this seems attributable to a misunderstanding by health care providers regarding the information that the patient wants. Therefore, information for surgical patients should meet the following basic requirements: it should answer the questions of each individual patient, it should be clear and well structured, and it should avoid excessive technical jargon. To meet these requirements, this current study will explore the patients' information needs as perceived by patients and nurses in Malaysia.

The rationale for comparing the perceived information needs of patients and nurses is that nurses are traditionally recognized as patient educators and are usually the most immediate source of pertinent information for patients during hospitalization. Sometimes the

information is given to the patients according to what the nurses think is important for the patients to know, rather than using a standard assessment to identify what information patients want. Turton (1998) concluded that nurses sometimes fail to perceive patients' information needs correctly. As a result, it is likely that the education process of the patients will not be effective in meeting their information needs fully. Therefore, given this relationship, the comparison of nurses' and patients' perceptions appears a valid area of investigation.

It has also been suggested that structured patient education programs ensure that important information is consistently made available to patients. Simple information checklists should be introduced in order to guide nurses regarding the likely areas of patients' information needs. This can help to ensure that a basic minimum amount of information is given to all patients prior to hospital discharge. Moreover, an effective educational program should be designed using patients' input. This will increase the level of patient satisfaction, as there is a strong relation between adequacy of information and overall satisfaction with care (Thompson, Webster, & Meddis, 1990). However, patients generally do not perceive nurses as a significant source of information. Nurses may have failed to meet the patients' information needs by assuming that they know what information the patients wanted to know, and based their teaching on assessment without any validation (Harrison-Woermke & Graydon, 1993). At the same time, it will also provides a documentary record of what information individuals have been given while in hospital. Given an increased recourse to litigation in health care, this may be particularly useful medico-legally. Much can be done to improve the information giving process. Such changes are likely to benefit both patients and nurses, as they will be able to carry out this role more efficiently and effectively than at present (Turton, 1998).

#### *Perceptions of Information Needs and Related Factors*

According to King (1981), many factors may influence perceptions. These factors are biological aspects, past experiences, socioeconomic groups, and educational background. Previous studies have shown that some factors related to patients' and nurses' perceptions influenced their ranking of the importance of the five dimensions of preoperative information. According to Sidani and Braden (1998, as cited in Guruge & Sidani, 2002), age, gender, educational level and ethnocultural background can influence responses to interventions, such as the influence of preoperative teaching on length of stay and postoperative pain. Guruge and Sidani (2002) conducted a meta-analysis of 20

studies to identify demographic characteristic effects on preoperative teaching outcomes. The findings confirmed the positive and moderate effects of preoperative teaching on these outcomes.

According to Brumfield, Kee, and Johnson (1996), nurses who have 10 years of experience ranked the sensation-discomfort dimension as significantly more important than did nurses with less than 10 years of experience (Turkey's HSD,  $p < .05$ ). The more experienced nurses also ranked the remaining four dimensions higher in importance than the less experienced nurses, although these differences were not statistically significant. Postanesthesia care unit (PACU) nurses ranked the five dimensions as higher in importance than did nurses working in either the ambulatory surgery unit or the operating room, although these differences were not statically significant. Patients with a bachelor's degree consistently ranked all five dimensions of preoperative teaching as being more important than did patients with less education, and female patients ranked the remaining four dimensions of preoperative teaching as more important than did male patients.

Individuals with higher educational preparation obtain needed information from others before hospitalization (Yount & Schoessler, 1991). Data indicated that a small but significant negative relationship between the patients years of formal education and his/her rating of importance of preoperative teaching. Little correlation was found between nurse's age, years of practice and rating of importance of situational, skills training, and psychosocial subscales (Yount, Edgell, & Jakovec, 1990).

Bernier, Sanares, Owen, and Newhouse (2003) reported that income and gender were related to the type of information preferred by participants. Participants with annual incomes of less than \$20,000 preferred situational/procedural information more than did participants in higher income brackets. It may be that income influenced participation in and exposure to various life experiences, and influences knowledge of health care systems. Therefore, information specific to the surgical situation may be valued most highly by people who lack previous experience with such systems. They also found that males and females valued psychosocial support information differently. The researcher expected females to demonstrate a greater valuing of psychosocial support information. The opposite was true. Health care providers who subscribed to societal stereotypes of females as more stoic and unexpressive may be missing an important opportunity to provide much needed psychosocial support at the time of surgery. This finding is also supported by Brumfield,

Kee, and Johnson (1996), who found that psychosocial information was significantly more important to female patients than male patients ( $p < .05$ ).

Furthermore, Henderson and Chien (2004) stated similar results in their study of the information needs of Hong Kong Chinese patients undergoing surgery. They reported that in the comparison between demographic data and the means scores for desired information, females were generally more desirous of information than males. The difference between males and females was consistent with all responses. They also found that the scores of all information were significantly different between patients with primary school, secondary school and tertiary levels of education ( $p = 0.005$ ). Tertiary level of education was significantly different from the other two levels during the post hoc comparisons for each need statement, using the Scheffe test ( $p < 0.004$ )

In summary, perceptions of information needs are influenced by age, gender, level of education, working experience, ethnocultural background, and income. Many studies (Bernier, Sanares, Owen, & Newhouse, 2003; Brumfield, Kee, & Johnson, 1996; Henderson & Chien, 2004; Sidani & Braden, 1998 as cited in Guruge & Sidani, 2002; Yount & Schoessler, 1991) have found this relationship, but they were not part of the main objective of their study. This study is more concerned with the needs of patients' information to enhance the structure of preoperative teaching programs in surgical wards.

### *Summary*

In summary, perioperative information is information regarding care in the preoperative, intraoperative, and postoperative periods. It is important for surgical patients to know what will happen to them in the three phases. Knowledge of what to expect will make them participate more in their care. Informed patients make them face surgery more calmly and with less anxiety. Previous studies have established that giving information before surgery will reduce anxiety (Walker, 2002), postoperative pain (Devine, 1992), length of hospital stay, and increase patients' satisfaction with care (Hodgkinson, Evan, & O'Neill, 2000). However, most of these studies were done in Western countries. The previous studies were evaluated using five dimensions of preoperative teaching to identify what type of teaching information patients need most. The findings from these studies show that patients and nurses ranked the importance of teaching differently. To date, no studies on the patients' information needs in perioperative care have been conducted in Malaysia. In this current study, the patient's information consists of five dimensions adapted from



Yount, Edgell, and Jakovec (1990). These five dimensions of information were integrated into three phases of perioperative care. Therefore, the current study will explore patients' and nurses' perceptions of patients' information needs during perioperative care at the Hospital of University Science Malaysia. Knowing how patients and nurses rank the importance of various categories of health care information needed by surgical patients is essential. The findings will help in the design of a more systematic preoperative teaching program for surgical patients.