

Improving Care for Patients Undergoing Day Care

by

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Supervisory Committee

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Abstract

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With a rapid increase in numbers of procedures performed as day surgery, organizations are challenged to sustain quality care for patients using these services. In this paper, I will investigate the current pain care practices for this patient population. A structured preoperative program, which includes provision of information on self-care pain management, will assist patients undergoing day care procedures to assess and manage their pain more effectively. Twenty three articles were critiqued and graded for relevance. Ten articles were chosen for this integrative review of the literature--all ten articles were graded as highly relevant to the problem—and included both original research and other sources. Findings indicate that this patient population requires an increase in psychological support. In addition; specific changes to the current way of providing perioperative education for patients are indicated. Expanding the nurses' educative role in this setting is a key strategy for improving the quality of care for patients undergoing day surgery and their families. I recommend the implementation of a structured program for patients undergoing day surgery. A structured program would include: (a) patient assessment at the pre-admission stage to ensure suitability for day surgery, (b) psychological support with attention to anxiety management strategies during the pre-operative waiting time, and, (c) individualized patient information provision that includes pain care to facilitate self-care after discharge.

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Many surgical procedures once requiring a hospital stay are now performed as day care surgery. According to Rudkin and Rudkin (2005), ambulatory surgery has acquired increased acceptance with over 70% of elective surgical procedures now occurring as day surgery. The increased number of surgeries performed as day care is largely due to improved anaesthetic and surgical techniques that increase efficiency by decreasing the length of hospital stay while improving patient satisfaction through early recovery (Kehlet & Wilmore, 2008; Tse & So 2008; White, Kehlet, Neal, Schricker & Carr, 2007). This change in approach to care is commonly referred to as the “fast-tracking” approach. Nursing is impacted in that such changes necessitate the development of innovative strategies to provide direction and guidance for nurses to provide appropriate care in the limited time available in the ambulatory setting.

The International Association for Ambulatory Surgery (IAAS) was founded in 1995 and has members from twenty different countries. The founding members of the IAAS clarified the terms used to express the model that I refer to above as day surgery in various ways including: ambulatory surgery, major ambulatory surgery, day surgery, and ambulatory anaesthesia (Lemos, Jarrett & Philip 2006). The opening statement of the founding members defines the concept of ambulatory surgery as a surgical or diagnostic intervention historically performed during hospitalization that could now be accomplished without a conventional hospital stay. In addition, the IAAS position is that procedures performed as day surgery require the same technically sophisticated facilities, rigorous pre-operative selection procedures, and postoperative follow-up as procedures requiring a hospital stay. Although there has been an increased movement towards day surgery, there is decreased opportunity

for nurses to engage patients and their family members and this creates a gap in practice that has not been addressed (Gilmartin & Wright, 2007, 2008; Tse & So 2008). Less time with patients and their family members means less time for nurses to provide instrumental and emotional support (Gilmartin & Wright, 2008; Walker, 2007).

Statement of the Problem/Background

There is a plethora of literature and research regarding the best practices with pain management techniques; however, there is a significant need to bring research and consensus guidelines in line with pain care practice with surgical day care patients. Recent studies have shown that 30-60% of patients experience moderate to severe pain in the first 24 hours after discharge home following day surgery (Lemos, Jarrett & Philip 2006; Townsend & Cox 2007; Rawal, 2008; White & Kehlet 2010). Patients undergoing day care surgery do not have the benefit of the pre-admission clinic where patients receive individualized assessment and teaching from an anaesthesiologist specialized in pain care and a nurse focused on issues specific to patients undergoing surgical procedures (Walker, 2007). Oshodi (2007) maintains that nurses are equipped with knowledge and skills to provide appropriate information to promote self-care to patients undergoing day surgery. Surgical day care settings provide an ideal opportunity for the nurse to engage patients and their family members in learning how to manage postoperative pain. Nurses recognize that patients and their family members have a right to information that is accurate, truthful, and presented in a way that is understood, a position consistent with the notion that providing information can be empowering (Parse, 1999).

Transformation from the traditional hospital care for surgical patients to same day surgery has altered patient care in general, with pain care a focus of particular concern. This change

in health care delivery requires innovative strategies for the development and delivery of education specifically suited to surgical day care patients and their families, and pain care is a key component of the educational needs of this patient population. Thus, the objective of this project is to develop innovative strategies to address the educational needs of patients and families to support their capacity to manage pain. Expansion of the nurses' educative role is fundamental to achieving this goal. An understanding of the fast-tracking¹ method and multimodal management of pain and nausea are necessary to identify the unique needs of the same day surgery patient population. I will do this through reviewing the literature, summarizing the main concepts, and by making recommendations developed through themes that arise from the current literature.

Problem 1: Pain Care for Day Surgery Patients

Unfortunately, pain management, which should be central to the success of day surgery as it is an anticipated response to any surgical procedure or tissue trauma, remains an area requiring improvement (Buss & Melderis, 2002; Jin & Chung 2001; Lemos Jarrett & Philip 2006; Townsend & Cox 2007). Advancements in surgical approaches and practices have contributed to the success of same day surgery. The increased numbers of minimally invasive surgical techniques for a variety of procedures and the use of local anaesthetic at the surgical site contribute to a rapid recovery associated with much less pain, thus, the growth in numbers of same day surgical procedures (White, et al. 2007).

The fast-tracking approach, when applied to day surgery, promotes the use of short acting anaesthetic agents and multimodal techniques to manage pain and nausea in the immediate

¹ "The fast-tracking recovery concept examines different paradigms for streamlining the postoperative recovery process" (Watkins & White, 2001, p.379).

postoperative period. According to Watkins and White (2001), these techniques enable patients to bypass the labour intensive Post Anaesthetic Care Unit (PACU) for transfer directly to the less costly Surgical Day Care Unit (SDCU) for assessment and preparation for discharge home. Multimodal pain management techniques have been shown to reduce the amount of opioid analgesics used for pain management while reducing pain, thus contributing to a decrease in the unpleasant side effects of opioid medications. Multimodal pain management consists of (a) administration of oral acetaminophen® and (b) an oral anti-inflammatory such as Naprosyn® both given preoperatively and continued at prescribed intervals postoperatively. According to several authors this method has been shown to reduce the amount of opioids necessary to achieve pain control (Lemos, Jarrett, and Philip, 2006; Schug & Chong, 2009; Townsend & Cox, 2007; White & Kehlet, 2010).

Decreased use of opioids minimizes the side effect of nausea often caused by these medications. In addition, anaesthetic agents may also cause nausea and vomiting in some individuals. Postoperative nausea management occurs through the administration of Ranitidine® and/or Metoclopramide® pre-operatively and Ondansetron®, either preoperatively or in conjunction with Dexamethazone® intra-operatively. Prochlorpromazine® may be given post-operatively if the patient experiences nausea upon awakening from the anaesthetic. This use of multimodal management methods to control postoperative pain and nausea is part of the fast-tracking approach necessary for day care surgery to be successful. Kehlet and Wilmore (2008) found that because multimodal evidence-based care within a fast-track approach significantly enhances postoperative recovery, this practice should be more widely adopted. A multidisciplinary move towards the development of pre-printed orders that reflect the multimodal fast-tracking approach

(Appendix), and the expansion of patient education to include pain care are necessary to improve postoperative recovery for day surgery patients.

Problem 2: Information Provision for Patients and Families

Currently, patients undergoing day surgery arrive at the facility the morning of their procedure with the information provided in the physicians' office. Nurses in the SDCU perform an assessment, which includes engaging patients in a conversation about their understanding of the surgical procedure. Assessment includes identification of specific learning needs of the individual, and patient information provision occurs during this admission process when anxiety is high. Grieve (2002) states,

Hospitalization, even in patients who are not faced with the prospect of surgery, is known to cause anxiety. One may, therefore, expect some degree of anxiety in patients attending for day surgery. Anxiety provokes a physiological stress response which impedes the healing process. Thus, the reduction of preoperative anxiety is widely accepted as part of nursing care. (p. 670)

According to Oshodi (2007), anxiety provokes a physiological stress response that has been linked to increased postoperative pain. In addition, the most frequently expressed concern of patients in the SDCU is how much pain they will have following their surgery (B. Smith, personal communication, July 15, 2010). Information provided to patients and their families should include, but not be limited to, information about the surgical procedure itself, and should also include how patients might assess and manage postoperative pain.

The educative role of nurses is an integral part of the care that is essential to patient satisfaction and positive outcomes. Gilmartin and Wright (2007) conducted a literature review exploring the nurses' role in day surgery. They concluded that patients and families

have identified deficits in day surgery which need to be addressed to bring about positive change to current practice. “Key areas include developing pre-assessment, the utilization of novel communication strategies, psychological preparation, improved guidance for symptom management in the postoperative period, and more tailored and family-centered discharge planning” (Gilmartin & Wright 2007 p. 189). Strategies for improvements in the area of communication with patients and families require direction, cohesion, and greater innovation.

Objectives of the Project

It is my contention that the quality of care in this setting will improve with the implementation of specific changes to the current provision of perioperative education for this patient population. “The replacement of some traditional approaches in surgical care with evidence-based practices has demonstrated that surgical recovery can be accelerated and time required for convalescence decreased” (Kehlet & Wilmore, 2006, p. 189). It is my belief that a collaborative team effort is necessary to improve the quality of care in this setting. Nurses, pharmacists, anaesthesiologists, and surgeons working to consider pain care modalities, explore pain regimes specific to the surgical day care patients, and engaging patients and families in conversations about pain care is essential to improve pain care. Patient education that includes support for pain and symptom management after discharge home following day surgery is crucial to improve care. In this project I will conduct an integrative review of the literature to inform current practices.

Significance of the Project

The quality of educational approaches to perioperative nursing care for surgical day care patients and their families currently suffers from inconsistency. Patients and families do not have the benefit of the pre-admission clinic offered to individuals requiring a lengthier

hospital stay postoperatively. In addition, pain management is physician dependent: anaesthesiologist dependent in the immediate postoperative period and surgeon dependent upon discharge home. Inconsistencies exist with the current practices within nursing and medicine regarding information provision on pain management. A commitment to consistent patient care by means of a multidisciplinary approach holds promise for strengthening the quality of pain care for the surgical day care population.

Preoperative preparation, intra- operative interventions, and postoperative follow-up care consistent with the most recent research findings have potential to prevent patients from returning to the emergency room or to their family physicians following day surgery. Failure to implement these processes has potential to contribute to the health care costs that ambulatory surgery professes to save. There is a need for collaboration among nurses, surgeons, anaesthesiologists, and administrators to integrate improved perioperative management, which improves the quality of the recovery process by shortening the convalescence period after surgery (White & Kehlet, 2010).

Nurses' Role

In addition to drawing on evidence to guide nursing practice, understanding the importance of the educative role of the nurse in this setting has potential to improve the quality of care by ensuring consistency in the focus of care and pedagogies utilized. Benefits of preoperative education for patients are well documented in the literature, and have been shown to decrease the anxiety associated with impending surgery. The nurses' educative role facilitates emancipation and empowerment as patients gain confidence with self-care (Orem, 2004; Parse, 1999). Information provision by nurses assists patients and families to gain insight into their situation, which increases their ability to cope with the surgical experience.

The nurses' role is to promote adaptation by providing information to patients and their families specific to their individual needs and promoting participation, therefore, creating a supportive-educative environment (Orem, 2004).

While nurses' practice is interprofessional in this setting, nursing practice is guided by theoretical perspectives on the educative role. The goal of education is to assist patients/families to attain self-care agency by recognizing limitations and determining deficits, thereby providing explicit information that is patient/family specific. This patient/family-centered approach to education is receptive to the individuals' responses and how they perceive their surgical experience; therefore, they are able to adjust to their situation (Orem, 2004). The educative role in this setting is congruent with the philosophical underpinnings of nursing as a science and as an art, encompassing persons, their internal and external environment, their health, and nursing practice (Orem, 2004; Parse, 1999).

Method: Integrative Literature Review

In this literature review I will investigate the gaps in the care of patients undergoing day surgery, and explore what is evident as ways to improve current practices. Patient information provision, management of pain and anxiety, and the educative role of nurses are prevalent themes in the literature throughout this review. Following examination of the literature I will identify inconsistencies in current practice and provide recommendations to improve care for this patient population.

My review of the literature began with a Cumulative Index of Nursing and Allied Health Literature (CINAHL) search for articles pertaining to individuals undergoing surgical procedures and returning home the same day. Key words for the search were fast-tracking, multimodal, pain, ambulatory, day surgery, anxiety, and education. Over fifty-two articles

were retrieved and I proceeded to apply inclusion criteria as follows: (a) written in English, (b) published after 2000, (c) either quantitative or qualitative research and literature reviews, (d) addresses the population of patients undergoing surgical day care procedures, and (e) studies linking pain, anxiety, and information provision. This resulted in 23 papers that met the criteria. The rating scale of Whittemore and Knafl (2005) was used to determine relevancy to improving care for patients undergoing day surgery in the areas of patient information and anxiety, the educative role of nurses, and information provision and pain care. This resulted in 10 studies to be included in this integrative review. Three quantitative, four qualitative and three literature reviews were chosen to provide a comprehensive understand of the phenomenon of concern. The two-point rating scale reflects the theoretical rigour and data relevance of a study where 2.0 indicates high relevancy and 1.0 indicates a low relevancy.

Methodological strategies to enhance rigor proposed by Whittemore and Knafl (2005) include: problem identification; literature search; data evaluation; data analysis; and, presentation or recommendations for practice (p. 548). Studies that include the surgical day care patient population were rated 2.0, or highly relevant to this review. Eight of the studies are specific to the day surgery population and two of the studies include both patients undergoing day surgery and surgical patients remaining in hospital postoperatively. These two studies investigate preoperative information provision. In addition, the studies were critiqued and analyzed for their strength, rigor and relevance using the framework of Polit and Beck (2008) as illustrated in Appendix 1. The included articles are listed in the Table at the end of this paper. The 10 studies were chosen as they all scored high in rigor and ranked as highly relevant to the topic of this integrative literature review. Distinct patterns and

themes arose from the data showing relationships between the variables, which describe current knowledge.

Literature Review

Patient Information and Anxiety

Patient Centered Care

Four of the studies in this literature review are concerned with the patients' experience, and explore aspects of current practices that require changes to provide a patient-centered approach to the care of patients undergoing day surgery. Two qualitative studies (Bothe & Donoghue, 2009; Gilmartin & Wright, 2008), one quantitative study (Mitchell, 2010), and one literature review (Bellani, 2008), explored current practices from the patients' perspective in the surgical day care setting. The first study was conducted by Both and Donoghue (2009), "Using Action Research to Develop a Model of Patient-Centred Day Care," a study that was undertaken to develop a patient-centred, safe, and effective model of care for patients undergoing complex surgical procedures and returning home the same day.

Patients undergoing Laparoscopic Cholecystectomy (LC) and Umbilical Hernia Repair (UHR) at a 500 bed hospital in New South Wales were being postponed due to insufficient bed capacity. Investigation of how these procedures were managed as day surgery at other facilities revealed that changes to the current surgical and anaesthetic techniques were required. The researchers in this study recognized the importance of the specialized intra-operative care that is required for day surgery to be successful. This is consistent with the belief that advancements in anaesthetic and surgical techniques have contributed to the growth in numbers of surgical procedures now being performed as day surgery (Kehlet & Wilmore, 2008; Tse & So, 2008; White, Kehlet, Neal, Schricker & Carr, 2007).

The permanent staff of the Day Surgery Unit (DSU) formed the research team, and patients undergoing LC and UHR for an 11 month period beginning January 2002 benefited from the improvements in patient care. The research design used Habermas' theory of communicative action, which encompasses the notion that effective communication can achieve understanding between two or more people (Habermas, 1987). The researchers used Meyers' (1995) six stages of action research, assessment, negotiation, planning and action, evaluation, and withdrawal to structure the research process.

The critical moments of the patients' experience in the preoperative period were identified as the waiting time, lack of information about delays, lack of emotional support, and psychological disengagement by the health care professionals (HCP). Postoperative experiences focused on hurried interactions, moments of drowsiness, and difficulty with information absorption. The findings suggested that information reinforcement, and ensuring that relative/carers are present during discharge planning, has a positive influence on the ability to cope at home following day surgery. The researchers considered patient safety to be multifaceted and a priority of care. Effectiveness of care is described as using resources to do the right thing, in the right way, and at the right time to achieve desirable outcomes. Patient-centeredness is portrayed by the researchers as a philosophy of care which embraces the patients as the principle factor in the delivery of care. Significant changes occurred that improved the three chosen criteria: patient safety, effectiveness of care and patient centred care.

Several researchers agree that information provision in the day surgery setting is problematic and highlight the importance of the presence of a relative/caregiver during the delivery of information. Information provision has been recognized as a crucial factor of

anxiety management, so it is essential to develop an approach to overcome the obstacles that exist in the day surgery setting (Gilmartin & Wright 2007; Oshodi, 2007; Tse & So, 2008).

The assessment stage of the study revealed that day surgery processes were organized to meet hospital demands and allowed little time for communication between nurse and patient. Patient education materials were outdated and not used by the nurses, so patients were sent home without written postoperative instructions. The need for a carer for twenty four hours was not emphasized as a safety precaution. In the negotiation stage the team aligned their values into the decided set of criteria. Ongoing monitoring focused on continual diagnosis, planning, intervention, and evaluation of the changes. Withdrawal was concerned with ending the research project while maintaining continuation of reflective action to ensure improvements to the quality of care for this patient population.

As a result of this research study guidelines for patient assessment were developed and implemented, individual patient assessment and needs were identified and documented, and name and contact number of carer recorded. Confirmation of the presence of a carer for twenty four hours post discharge, and preoperative assessment indicating special needs that were documented for reference at the next phase of treatment improved safety for patients. In addition, education was provided for patient and carer about the overall day surgery process and literature was developed and disseminated to patients and carers in their own language about day surgery, the procedure, and recovery. Critical examination of current practices that focused on the needs of the patients undergoing day surgery resulted in more effective, safer, patient-centered care.

This study has shown that action research is an appropriate methodology to enable nurses to change practices that they identify as relevant in their own clinical setting. Although

nurses in another SDCU may not recognize the same practice issues, the method used facilitated recognition of issues in practice that required change to improve patient care. The practice concerns identified in this study are supported by the findings in the following two studies presented in this review.

Patients Felt Abandoned

The second study in this review is “Day surgery: Patients felt abandoned during the preoperative wait,” conducted by Gilmartin and Wright (2008). A hermeneutic phenomenological approach with unstructured interview data was used to obtain data from the experiences of 20 adult patients undergoing day surgery. Patients undergoing gynaecology, urology, and general surgery were purposefully selected at the pre-assessment clinic in one large teaching hospital in the north of England.

Hermeneutics, as described by Polit and Beck (2004), is a qualitative tradition drawing on interpretive phenomenology focusing on lived experiences and how individuals interpret their experiences. Consistent with the hermeneutic approach, findings were interpreted through themes that emerged using the phenomenological method as posited by van Manen (1990) to analyze the qualitative data. Unstructured interviews occurred with one key question encouraging participants to talk about their experiences of the day surgery. Active listening, non-verbal cues, and probing were used to encourage responses. The interviews were tape recorded, transcribed verbatim, and brief notations were taken by the researcher to strengthen the recorded data and allow for ‘memoing’. Interpretation occurred through the identification of four themes using the phenomenological method: (a) feeling of empowerment during preparation for surgery, (b) apprehensions encountered, (c) feelings of abandonment in the preoperative waiting area, and, (d) the dynamics of recovery.

Trustworthiness was established by allowing participants the opportunity to read the findings and indicate if they were compatible with their perspective utilizing member validation.

Consistent with the previous study in this review, the feeling of abandonment caused apprehension in the preoperative waiting area, making patients feel emotionally vulnerable, which affected their ability to communicate. An important aspect of preoperative care is for HCP to provide continuity when engaging in preoperative dialogue, and to facilitate a stronger degree of empowerment for patients throughout their journey (Bellani, 2008; Tse & So, 2008; Walker, 2010). This study investigated patients' experiences; therefore it is relevant to practice changes that need to occur to improve patient satisfaction and outcomes. Limitations include the small number of participants and sampling excluding several other groups who undergo day surgery. Gilmartin and Wright (2008) suggest that a future study conducted in another facility may be useful to see if any significant differences emerge. The study emphasizes the importance of psychological support during the preoperative period to improve the care of patients facing a surgical procedure. Information provision and psychological support is an important aspect of care during the preoperative wait to alleviate the feelings described in this study. These findings are consistent with those of Bellani, (2008), Bothe and Donoghue, (2009), and Mitchell, (2010).

Anxiety Provoking Aspects of Anaesthesia

The third study in this review corroborates the findings in the previous two studies and supports the notion that lack of information provision and psychological support increases anxiety in patients awaiting surgery. Mitchell (2010) conducted a quantitative study, "General Anaesthesia and Day-case Patient Anxiety." The researcher aimed to uncover the most anxiety-provoking aspects of general surgery to determine what interventions may

alleviate preoperative anxiety. Mitchell (2010) contends, “Patients undergoing day surgery have brief hospital stays, limited contact with health care professionals, and restricted access to formal anxiety management strategies” (p. 1061). Several authors agree with Mitchell (2010) and found that the brief encounter with HCP during the preoperative waiting period did not allow for the psychological support that patients undergoing day surgery required (Gilmartin & Wright, 2007; Lemos, Jarrett & Philip, 2006; Tse & So, 2008).

Using a quantitative cross-sectional survey design, a convenience sample of 1250 patients scheduled for elective surgery in three day surgery units in England participated in the study. Four hundred and sixty patients completed the questionnaire over a two year period from 2005 to 2007. Eighty-five percent said they were anxious on the day of surgery. The questionnaire had 59 items, with the majority using a Likert-type response format. The study focused on anxiety associated with surgery and general anaesthesia.

Issues concerning the preoperative experience, such as waiting and arriving at the theatre door were a considerable source of anxiety. Also, thoughts associated with being unconscious, dying during surgery, waking during surgery or not waking afterwards, were a further cause of anxiety. Findings from this study identify specific anxiety provoking issues that patients encounter when undergoing surgical procedures.

The researchers conclude that patients undergoing day surgery require less physical care and an increase in the psychological aspects of care. “The formal and timely provision of information about the planned surgery and a patient-centered approach to anaesthetic information provision are vital first steps” (Mitchell, 2010, p. 1068). Supplying appropriate information provides the knowledge patients need to participate in their care, and offers the psychological support required to alleviating anxiety. This is a concept well established in the

literature and pointed out by Bellani, 2008; Gilmartin & Wright, 2007; Oshodi, 2007; and Walker, 2007. Mitchell (2010) also found that information provision for patients prior to the day of surgery was shown to decrease anxiety, and Walker (2007) recognized the need for rigorous research to identify optimum timing and delivery of preoperative information.

Mitchell concluded that personality type may have exerted an influence on the level of anxiety experienced by the participants. Limitations to the study were associated with the differing surgical procedures performed, use of patient self reported questionnaires, and the low response rate. Further studies are required to develop the themes arising here, especially to evaluate the formal presentation of information to dispel the myths associated with general anaesthesia. In addition, evaluation of interventions directed towards anxiety management on the day of surgery is indicated (Mitchell, 2010; Walker, 2008).

Evidence from the study demonstrates the changing needs and management of patients undergoing day surgery and general anaesthesia. Knowledge from this study may be used to structure preoperative patient information to include addressing the common fears that patients have shown to experience. As noted in the previous studies by Bothe and Donoghue (2009) and Gilmartin and Wright (2008), Mitchell (2010) demonstrates that patient information provision is necessary to provide the psychological support that patients need when faced with surgery. Patient information directed at those aspects of surgery that create the anxiety associated with the experience is required to alleviate fears, thereby, decreasing anxiety and providing patient-centered care.

Information Provision and Anxiety

Review of the literature by Bellani (2008) investigates the “Psychological aspects in day-case surgery.” The fourth study in this review scored as highly relevant linking patient

information provision and anxiety. The main themes of Bellani's literature review are related to experiences within the day surgery process, anxiety and its management, information provision, and recovery at home. For brevity's sake only anxiety management and information provision are discussed in the Bellani (2008) review.

A computerized search using Medline and the Cochrane Database produced 72 references from the key words: "day-case" or "outpatient" or "ambulatory" and "quality of life" and "patient" interchangeably. Consistent with the previous studies, Bellani found that anxiety is a common emotional reaction to having a surgical procedure and high degrees of anxiety have been shown to adversely influence the surgical procedures, which has a negative impact on surgical outcomes. Bellani (2008) contends that the most fearful aspects of day surgery were general anaesthetic, the preoperative waiting time, and anticipated pain and discomfort postoperatively. These findings are consistent with the studies of Gilmartin & Wright (2008) and Mitchell (2010).

Bellani (2008) found that the most common cause of patient dissatisfaction was lack or inadequacy of information and that correct timing, content, and delivery of patient information has shown to reduce anxiety. The timely and appropriate provision of different levels of information tailored to patients' coping style and preferences has been strongly recommended indicating that a formal and structured program of information delivery is required. This recommendation was also voiced by Mitchell (2010) and Stomberg, et al., (2008). Other recommendations by the researcher included the implementation of an anxiety management plan that focused on the provision of correct level information related to the patient's coping style, maintaining close physical presence of the nurse and physician, and involving the patient in decision-making processes whenever possible. The management plan

they suggest should centre around the most common preoperative fears, and on praise and encouragement to promote self efficacy.

Findings in Bellani's (2008) review emphasized that it is crucial for patients to receive timely, appropriate, and evidence based information and that patients want the amount of information to be tailored to their preferences. In addition, Bellani states, "A dilemma exists with information provision in that too much as well as too little can cause an increase in anxiety" (p. 545). These findings correlate to the previous three studies in this review emphasizing patient information provision, and also revealing the importance of timing, content, and delivery for anxiety reduction. Individualized patient-centered information provision is possible when nurses possess the knowledge and skill required to assess the coping style, level of understanding, and desires of the individual patient.

The Educative Role of the Nurse

The findings in the previous three studies in the preceding section emphasize the need for a structured program concentrating on patient information provision. A structured program would require nurses to become more actively involved in established information provision practices. The educative role of the nurse is highlighted in three of the ten articles: one qualitative (Fitzpatrick, 2005), one quantitative (Stromberg, Segerdahl, Rawal, Jakobsson, & Brattwall, 2008) and one literature review (Walker, 2007). All three articles explore current practices of preoperative and postoperative information provision and investigate the provision of appropriate timely patient information, emphasizing the role of the day surgery nurses.

Educative Role of Nurses and Patient Information

The first study by Fitzpatrick (2005), “What Characterizes the ‘Usual’ Preoperative Education in Clinical Contexts?” aims to understand how the usual preoperative education is practiced in several surgical clinical units at one hospital in Ireland. Fitzpatrick (2005) conducted a qualitative study using a strategy resembling grounded theory to understand how the usual preoperative education occurs in several surgical units at one hospital in Ireland. The primary purpose of grounded theory is to generate comprehensive explanations of phenomenon that are grounded in reality (Polit & Beck, 2004), so the method was appropriate for this investigation. Twelve nurses with a minimum of two years experience in a surgical clinical setting from five units participated in the study. In-depth interviews were carried out by one of the researchers and transcribed incident-by-incident.

Four themes emerged from the data: (a) the importance of patient education and what patient education encompassed, (b) generic content of information where participants focused on the physical and technical aspects of what patients could expect to happen such as drains, catheters, and the use of equipment; (c) principles of teaching and learning revealed that the majority of participants did not relate to the terms “principles of learning,” “theories of teaching and learning,” or “teaching strategies”; and, (d) “teaching tools.” Several of the participants viewed preoperative education as “telling” the patient specific information, rather than a collaborative process and used the preoperative check list inappropriately as a teaching tool. Verbal exchange between the nurse and the patient only occurred if the patient asked questions. Some written materials were available but the nurses’ use of the materials depended on the nurses’ assessment of the patients’ cognitive level or on time constraints.

Fitzpatrick (2005) found that the nurses applied some elements of educational theory, but most did not have knowledge of the principles of teaching and learning. The researcher concluded that in the absence of structured preoperative educative interventions, this aspect of care occurred in an inconsistent and ad hoc manner. When preoperative education is unstructured the quality and quantity of information is dependent on the individual nurse caring for the patient. She also concluded that timing, method, content, and tools employed in structured programs benefit patients. The author of this article concluded that structured preoperative education programs might achieve improved outcomes relative to patient teaching and standardization in the delivery of care. Structured programs consider timing, methods, and content of educational sessions. There is general acceptance that structured preoperative education is beneficial for both patients and organizations in terms of outcomes. These findings and recommendations are consistent with Bellani, (2008); Gilmartin & Wright, (2008); Mitchell, (2010); Tse & So, (2008). The study took place in one clinical site, so may not be transferable to other contexts. In addition, time constraints limited the degree to which the data could be saturated.

Preoperative Information and Patient Satisfaction

Walker (2007) asks “What is the Effect of Preoperative Information on Patient Satisfaction?” This literature review conducted by Walker (2007) focused on preoperative information provision in relation to postoperative recovery, and explored the relationship between anxiety and the information received preoperatively. Articles written in English that included participants over the age of 18 were included in the review. A computer data base search included: biomed central, British Nursing Index (BNI), Cochrane database of systemic reviews, Cumulative Index to Nursing and Allied Health Literature (CINHAL), Database of

the National Library of Medicine (Medline), Health Management Information consortium (HMIC), Ovid and PsychINFO. Key words used for the search included anxiety, pain, patient information, postoperative, preparation, preoperative, psychological, satisfaction, surgery, and written information.

Both qualitative and quantitative studies were included in this review and no time period constraints were set for the date of publication. Follow-up reference lists were utilized using an ancestral approach. The ancestry approach is described by Polit and Beck (2004) as “footnote chasing” of cited studies (p. 693). The researcher states that the lack of shared vocabulary between disciplines may result in some studies going undetected. The researcher clarified the meaning of anxiety for the reader. “Anxiety was defined as the feeling of diffuse uneasiness, dread and foreboding for the purposes of this literature review” (Walker, 2007, p. 28).

From this review of the literature, Walker concluded that although preoperative information may be available it may be technical, complicated, and not easily readable due to confounding factors, or merely due to patients being overwhelmed by large amount of information from multiple sources. Further, Walker notes that these articles suggest that appropriate information provision empowers patients to become active participants in their treatment and care, and facilitates the process of making informed decisions and choices (Walker, 2007; Gilmartin & Wright 2008). Therefore, the provision of suitable preoperative information is a key role for health professionals. By ensuring that preoperative information is effective in terms of recovery, patient satisfaction may increase with the care and information provided (Walker, 2007).

Walker further notes that the literature reviewed suggests that patients are more likely to follow a recovery plan if they understand the information provided for self-care. The literature reviewed by Walker indicates that the provision of clear, multidisciplinary written information acts as a point of discussion during their hospitalization and as a point of reference once the patient has gone home. Written information maximizes health professionals' time and helps reduce time spent on repetition of routine information which can easily be delivered in written format. Preparatory information appeared to facilitate increased participation in care and aid in the development of appropriate coping strategies. A multidisciplinary information booklet issued prior to admission was thought to reduce the confusion caused by multiple sources, and help streamline the information process. Walker (2007) and Mitchell (2010) agree that further studies are needed to discover the most effective timing and method of delivering preoperative information to optimize patients' comprehension and decrease anxiety.

Nursing interventions noted to be of highest priority in this review included more extensive and individualized information before surgery, preoperative screening information/education at discharge, a follow-up telephone call for quality assurance, and information and support at home. The researcher wrote, "Although research findings are contradictory with respect to the effects of preoperative information on postoperative pain and patient satisfaction, research does indicate that the provision of good quality preoperative information facilitates active involvement in their care" (Walker, 2007, p. 29). When patients are actively involved they are empowered to participate in their care by making informed choices. In addition, the researchers found that an early and safe discharge requires special attention to medical screening, and individual patient information and education to

optimize perioperative care. Walker (2008) recommends that future research to identify the optimum timing and method of delivering preoperative information to maximize outcomes and patient satisfaction is required.

Nursing Interventions to Improve Care

The third study (Stromberg, et al. 2008) relating to the educative role of the nurse aims to examine nursing practice in day surgery settings in Sweden. The researchers state,

As the complexity of procedures increases, as well as the number of patients with complex co-morbidities who undergo day surgery, it seems apparent that a dedicated day surgery nurse with a more active role, structured nursing interventions, and patient education about discharge and continuous support would be of value for optimizing care and reducing health care costs. (p. 319)

The increased numbers of procedures performed as day surgery contributes to the cost saving strategies of organizations, and optimizing the care of this patient population is beneficial to achieve this goal. Thus, in this study the researchers explore this research question: “What are the potential nursing interventions in the perioperative period based on our findings from a nation wide survey?” (Stromberg, et. al., 2007).

These authors developed a questionnaire that focused on the following: (a) general organization and routines for surgical procedures, (b) preoperative patient evaluation, premedication, process of drug administration; (c) PACU routines, (d) routines for pain management at patient discharge, postoperative nausea and vomiting, and patient information; (e) follow-up routines, (f) reasons for unplanned admission, (g) inclusion of new surgical procedures during the last five years, and, (h) routines for typical elective day cases

in adults, to include arthroscopy, hernia repair and laparoscopic cholecystectomy, child circumcision, adenoidectomy and tonsillectomy.

The questionnaire was mailed to the chairs of 92 anaesthesiology hospital departments in Sweden that perform ambulatory surgery. The chair of anaesthesia was asked to complete the questionnaire together with other physicians and nurses. Most of the questions consisted of “yes” or “no” alternatives, or “frequently” “sometimes”, and “never.” All data were stored in a computerized database and processed using the SPSS software (v. 14.0, SPSS, Inc, Chicago, IL). The process used for analyzing the data from open ended answers and comments in the questionnaire was similar to content analysis. No direct comparison between different hospitals was made. There was a response rate of 88%.

Nearly all units reported the preoperative administration of analgesics, most commonly Acetaminophen® (95%), traditional anti-inflammatory drugs (NSAIDs 73%), and COX-2 inhibitors (15%). Premedication was provided orally (80%). The PACU nurses routinely assessed pain with a specific assessment tool (93%). Most of the hospitals also had a standardized multimodal pain management program, which include both take-home package and prescription. Information about pain therapy was provided orally and in written form by 78% of the hospitals. Ninety-six percent of hospitals provided the patient with written information and instructions concerning the procedure and how to act during the recovery period. Ninety-six percent of hospitals provided a number to call if necessary.

Pain was the main reason for readmission after arthroscopy, hernia repair, and cholecystectomy. Nurse follow-up calls revealed that pain was the most common query after laparoscopic cholecystectomy, arthroscopy, and hernia repair. Surgery specific queries

concerned nausea after cholecystectomy, hematoma after hernia repair, and mobilization after arthroscopy.

Other findings revealed that “As the complexity of procedures increases, as well as the number of patients with complex co-morbidities who undergo day surgery, it seems apparent that a dedicated day surgery nurse with a more active role is needed” (Stomberg et al., 2008, p.318). Optimizing care with structured nursing interventions, patient education, and ongoing supports following discharge would be an effectual method to reduce health care costs, which is the primary goal of day surgery. The researchers recommend that nursing interventions should focus on information provision before surgery, preoperative patient health screening, and information/education at discharge. Furthermore, nursing interventions should include quality assurance, such as follow-up calls for the evaluation of care, as well as providing information and coaching for the patient at home.

The study reveals valuable information that contributes to the identification of the elements one would expect to be included in a structured program that encompasses the journey of the day surgery patient; patient selection, optimization, planned information provision, and postoperative follow-up care. The nurse’ role, these researchers posit, is integral in the development and implementation of such a program for day surgery patients. In addition, the researchers conclude that patients would benefit from being cared for by nurses who have the requisite knowledge and skills to provide the specialized care that day surgery patients need.

The authors of this article echo the realities of day surgery growth when they declare:

Advances in anaesthesia and surgical techniques have made possible a wide spectrum of complex procedures to be performed as day surgery. In day surgery, the contact with the

patient is brief and intense. Admission and discharge occur on the same day limiting contact and opportunity for communication. Optimizing the overall care of the day surgery patient requires a multi-professional approach in which preoperative screening and continuous patient support are of great value for patient safety and satisfaction.

(Stomberg, et. al. 2008, p. 311)

The hospitals that participated in this study utilized the most recent research evidence to provide multimodal pain management techniques intra-operatively. The researchers recognize the need for more structured preoperative and postoperative follow-up pain care to provide optimal care. These recommendations were also voiced by Bothe and Donoghue, (2009); Gilmartin and Wright, (2008); Older, Carr, and Layzell, (2010); Pavlin, Chen, Penaloza, and Buckley, (2004); Stromberg, et al., (2008).

Information Provision and Pain Care

The last three research articles in this review relate to pain management in the surgical day care setting: a qualitative study (Older, Carr & Layzell 2010) exploring patients need for information about pain care, a quantitative investigation (Pavlin, Chen, Penaloza & Buckley, 2004) that explored pain experiences after discharge home from day surgery, and a literature review (Elvir-Lazo & White, 2010) discussing the benefits of multimodal analgesia and how this technique contributes to patient outcomes. Patients' decision-making about analgesic use, incidence of pain following discharge from day surgery, and the use of multimodal analgesia techniques are addressed in these studies.

Patients Analgesia Use

Older, Carr and Layzell (2010) performed a qualitative study exploring patients' use of analgesics following day surgery, focusing on their decision-making about analgesia. The

researchers used an interpretive phenomenological analysis to explore the experiences of 28 patients undergoing day surgery. Interpretive phenomenological analysis is concerned with the individuals' personal perception, achieved through the interpretation of the interactions between the researcher and the participant (Munhall, 2007).

The patients were interviewed on postoperative day four from 2005 to 2006. A purposeful sample was recruited from a local day case unit in the United Kingdom (UK). Twenty-eight adult patients undergoing one of following procedures: hardware removal, laparoscopic interventions/diagnostic gynaecological, cholecystectomy, or hernia repair participated. These procedures are associated with moderate to severe pain postoperatively and all patients received multimodal pain analgesia. Telephone interviews were used to explore patients' experiences of analgesic use following day surgery. The researchers maintain that this method has been successfully used in previous interpretive phenomenological analysis research to explore patients' experiences concerning pain after in-patient surgery.

The data were collected during two stages. The interview guide in stage one was kept simple using two general questions including: "Please could you tell me about any pain or discomfort you have experienced since you left the hospital?" and "Can you tell me about your experience with the painkillers the hospital suggested you take?" Examples of prompts included: "Which painkillers did you take?", "How did you get on with them?", "How did you feel about taking them?" The second stage focused on exploring in greater detail some of the issues that arose in the stage one interviews with new participants.

The following key themes were identified using phenomenological methods advanced by Older, Car and Layzell (2010). Theme one was "Pushing the limits: why patients wanted to

avoid analgesics and why they thought they could,” theme two” “Coping strategies: strategies employed to cope with pain without analgesics,” and theme three “Stopping pain: factors leading to analgesic use.” Interpreting the data relative to these themes, the researchers concluded that inadequate provision of effective analgesia for patients to take home, and patient information that is not consistent and aimed at the individuals’ belief system are the two main barriers to pain management following day surgery. Analgesic use was a complex intentional decision-making process based on a matrix of beliefs surrounding pain, analgesics, and day surgery. Many described how they avoided analgesics and often withstood high levels of postoperative pain. Elvir-Lazo and White (2010) concluded that further research is required to identify ways in which these erroneous beliefs can be overcome.

The researchers identify that structured patient information provision requires the inclusion of education regarding the appropriate use of analgesia following day surgery. The research has implications for the content of patient information prior to discharge home after day surgery. Also, the need for a multidisciplinary approach to provide sufficient pain control for the twenty-four to forty eight hours after discharge is emphasized.

Pain after Discharge

Pavlin, Chen, Penaloza, and Buckley (2003), conducted a quantitative study to determine the significance of pain and other symptoms on the recovery process after ambulatory surgery. A secondary aim was to examine the role of pain and other side effects on return to normal activity, and on patient satisfaction with the recovery process. A prospective, observational, surveillance survey was used to collect data on pain, analgesic use, and related aspects of recovery in the first 48 hours after discharge from an ambulatory surgery unit. A

total of 175 adult patients were enrolled over a 6 month period. Patients undergoing: knee arthroscopy, inguinal hernia repair, pelvic laparoscopy, trans-vaginal uterine surgery, surgery for breast disease, and plastic surgery. Patients were contacted by phone at 24 and 48 hours postoperatively to obtain information about the recovery process. Analgesics were classified as non-opioids (Acetaminophen® or nonsteroidal anti-inflammatory drugs) or opioids. Estimations of equivalent doses were obtained from the medical literature.

Despite significant pain, the majority of patients reported being satisfied with their analgesic therapy and on average patients reported that 77% of their pain was relieved by their medication. Only 13% percent of respondents were dissatisfied with their analgesic therapy. Satisfaction most strongly correlated negatively with pain and nausea. In this study the researchers observed that 60% of patients reported pain of at least moderate degree (> 3/10 after discharge). Interestingly, maximum pain experienced after discharge was more severe than the maximum pain experienced in the recovery unit. Pain was the most common factor identified as limiting activity after discharge, and interfered with sleep in 46% of patients. There was also a strong association between disruption of sleep by pain and drowsiness the following day; drowsiness was the single most common symptom inhibiting return to normal activity.

The findings suggest that more effective pain control may have been attained if longer acting NSAIDs and opioids were used, and patients were instructed to take them regularly when pain is expected to be severe to avoid breakthrough pain. COX-2 inhibitors are recommended when haemostasis is an issue. The data also indicate that prophylactic antiemetic and stool softeners administered would be helpful in eliminating the side effects of opioids and the surgical procedure. Pavlin, et al. (2004) contend,

The disparity between pain scores and satisfaction with analgesia suggests that satisfaction with analgesic therapy is not necessarily a good indicator of the quality of analgesia, but rather relates to a variety of factors, such as the patients expectations, ability to tolerate pain or analgesic side effects, and, possible, the psychological or emotional responses to surgery. (p. 205)

Pain management is a complex matrix of preconceived ideas about analgesia use, individual perceptions of pain, and possibly psychological confounding factors associated with the surgery.

The researchers concluded that improved pain care after discharge is required to provide more consistent pain coverage especially at night. More consistent pain coverage would decrease convalescence so patients could return to their normal activity sooner. Further investigation and development of protocols for management of pain after discharge are indicated to improve the quality of recovery after ambulatory surgery. Selection of analgesics may vary from one institution to another. Thus, the data may not be representative of the recovery processes in all institutions. However, many of the observations related to pain severity, analgesic use, and side effects are consistent with results obtained in outpatient populations in Canada and Sweden. Sixty to seventy percent of surgeries are now performed as day surgery and pain is one of the most common complications of ambulatory surgery. Pain is a significant determinant of the duration of recovery prior to discharge, and one of the most frequent medical causes of delayed discharge after ambulatory surgery (Pavlin, Chen, Penaloza & Buckley, 2004). Therefore, attention to pain regimes for day surgery patients is beneficial to both patients and organizations to improve outcomes and as a cost saving measure.

Multimodal Analgesia and Pain Management

The purpose of a review of the literature by Elvir-Lazo and White (2010) was to provide an update on the topic of multimodal pain management for ambulatory surgery. A key word search was conducted using ambulatory surgery, multimodal analgesia, non-opioid analgesia, non-pharmacologic analgesic therapies, opioid analgesics, postoperative (acute) pain management, and recovery. Findings included that recent literature indicates efficacy of multimodal analgesic regimes continues to improve and opioid analgesics are taking on the role of “rescue analgesics” for acute pain after day surgery. The use of multimodal analgesia is becoming the “standard of care” for preventing pain after ambulatory surgery. The review highlights the importance of aggressive multimodal perioperative analgesia techniques that provide effective pain relief with minimal side effects, are safe, and can be managed by the patients and their families after discharge home.

The researchers concluded that the use of multimodal analgesia offers multiple benefits for the patient and the healthcare system in line with the goals of modern ambulatory surgery. The use of multimodal techniques reduces opioid use, therefore, related adverse effects, duration of hospital stay, and perioperative care costs, while still providing a high quality recovery for the patients undergoing day-case surgery. This integrative review contributes to the already established role of multimodal analgesia techniques and their benefits in the postoperative patient population. The implementation has occurred slowly over the past decade and the evidence continues to show that pain care of patients in the ambulatory setting continues to improve. The researchers conclude that multimodal analgesia is rapidly becoming the standard of care at most surgery centers throughout the world.

Discussion

Considerable research has been conducted on issues affecting patients undergoing day surgery. Studies presented in this integrative review include both qualitative and quantitative research. Three literature reviews were incorporated to present a broader picture of current practices, and to highlight areas that require improvement to the care of patients undergoing day surgery. Common themes in my review are identified as patient information provision, the educative role of nurses, anxiety and pain care. These themes are threaded throughout the literature as areas of concern and form the basis for a structured program for patients undergoing day surgery. Relationships between information provision and anxiety are of particular interest.

Information provision is complex and requires further investigation to identify the correct timing, amount, and level of information for the individual patient (Walker, 2007; Gilmartin, 2007). Information needs to be consistent and supported with written materials to provide a source of reference once the patient is home (Gilmartin, 2008). A multidisciplinary approach to patient information materials would aid in the development of consistent, reliable, and evidence based information. Both and Donoghue (2009); Gilmartin and Wright (2008), and Mitchell, (2010) found that information provision provides the psychological support patients need to decrease anxiety in the preoperative waiting period. Mitchell (2010) identified the common elements of surgery that cause anxiety and suggests that information for patients be directed to address these elements. Caution is expressed by Bellani (2008) as too much information can also cause anxiety, and suggests a formal anxiety management plan that is person-centered. Walker (2007) recommends that verbal information be supported with written materials as re-reading may aid the memory in spite of anxiety. Written materials

were found useful in the study by Bothe and Donoghue (2009), and are recommended by Stomberg et. al. (2008) and Walker (2008) to provide a point of reference for patients and families.

I have discussed the role of information provision in anxiety management and nurses are the primary source of information provision for this population. Bothe and Donoghue (2009) found that the nurses in their study were not familiar with teaching and learning methodology. Therefore, nurses require education specific to performing this very important aspect of care. In addition, the nurses' educative role requires an awareness of literacy and health literacy guidelines. Effective communication requires individualized learning through back and forth communication. This reciprocal interaction aids in the recognition of self-care deficits allowing the nurse to identify and address the specific learning needs of the individual to promote self-care (Tomey & Alligood, 2002, p. 195).

Nurses who provide anticipatory guidance about pain assessment and management minimize anxiety and facilitate self-care for patients. When patients and family caregivers have the skill to assess pain, the language to report their assessment to health professionals, and are knowledgeable about pain medications they are equipped to provide care and this is empowering (Orem, 2004). Pain control after discharge home remains the most common concern for patients undergoing day care procedures and this issue is complex.

Currently, multimodal analgesia is widely used; however, further investigation is required to explore how to dispel the preconceived ideas regarding analgesia use by patients once they return home after surgery. In addition, analgesia needs to be streamlined so that the individual receives appropriate pain medications sufficient to control their pain for the 24 to 48 hours following day surgery. Information provision should include the prevention and

treatment of nausea and constipation, which are the unpleasant side effects of opioids and some surgical procedure and have shown to deter the use of analgesics (Older, Carr & Layzell, 2010). Patients require information on pain care and must be provided with adequate analgesia to effectively treat their postoperative pain at home. Nurses need to be cognisant of the level of anxiety that exists when providing information and education should be directed at the patients' belief system to dispel preconceived ideas that interfere with analgesic use (Older, Carr & Layzell, 2010). Furthermore, Older, Carr and Layzell (2010) contend, "Patients use of analgesics was a complex intentional decision making process based on a matrix of beliefs surrounding pain, analgesics and day surgery... Many described how they avoided analgesics and often withstood high levels of postoperative pain" (Older, Carr and Layzell, 2010, p. 511).

Several studies included in this review have found that structured programs for patients undergoing day surgery inclusive of preoperative, intra-operative and postoperative follow-up care have shown to improve outcomes (Bellani, 2008; Fitzpatrick, 2005; Mitchell, 2010). In addition, structured programs provide consistent, appropriate, evidence based information provision, which has shown to alleviate the anxiety associated with surgery (Bellani, 2008; Walker, 2007; Mitchell, 2010). Expanding the educative role of the nurse requires nurses to acquire the education and skill to participate in a structured program inclusive of all three phases of the patients' journey.

Recommendations

I recommend the development and implementation of a structured patient program for patients undergoing day surgery. Although further research is recommended to investigate optimal timing, content, and delivery of patient information, psychological support by a

nurse should begin prior to the day of surgery: (a) a telephone assessment or an in-person visit to the preadmission clinic to provide support preoperatively, (b) the presence of the nurses to facilitate interaction and communication during the preoperative wait, (c) patient education to support self-care, and, (d) a follow-up telephone call by a nurse to provide an opportunity to relay concerns and receive support in the first 24 to 48 hours postoperatively. Inclusion of a family member or care giver during information provision preoperatively and postoperatively should be encouraged to strengthen the supports for day surgery patients.

Education for nurses in the day surgery setting is needed. Education should include principles of adult teaching and learning, cognisance of the literacy and health literacy needs of the individual, and anxiety management strategies. (Fitzpatrick, 2005; Mitchell, 2010; Walker, 2007). Future research studies are required to assist nurses in providing the correct amount of information at the most appropriate time for patients undergoing day surgery. Preoperative telephone assessments of day care surgical patients should include patient teaching and provide an opportunity for patients to ask questions to maximize their understanding of the information received prior to arriving in the SDCU the day of surgery. A follow-up telephone call, from the nurse in surgical day care, would provide support for the individual patient and their family after discharge. The implementation of telephone assessment and follow-up care provides the opportunity for nurses to assess and evaluate the individuals' situation postoperatively, therefore, providing support currently denied to this patient population (Lemos, Jerrett & Phillips, 2006).

In summary, a structured program for day surgery patients requires information provision specific to the three phases of the patients' journey, and tailored to the needs and coping style of the individual. Individuals require information on preoperative preparation, the intra-

operative anaesthetic and surgical procedure, and postoperative self-care. Nurses providing education require knowledge of teaching and learning methods and the skill required to identify the specific needs of individuals undergoing day surgery. A multidisciplinary approach in the development of patient information materials is necessary to ensure that patients receive consistent, current, evidence based information for self-care. Future research conducted on anxiety management strategies during the preoperative wait and the optimal timing of specific information for patients undergoing surgical procedures is recommended.

Ethical Considerations

The development of pre-printed physician orders (Appendix) for patients undergoing day surgery ensures that all individuals receive the benefits of the most recent evidence based care. All patients receive Ranitidine®, Acetaminophen®, and Naprosyn® as described in this paper as the multimodal technique to manage nausea and pain. The dosage of Naprosyn® is offered as a choice and is dependent on the renal function of the individual. In addition, some anaesthesiologists prefer to administer Ketorolac® intra-operatively, rather than Naprosyn® preoperatively, as an anti-inflammatory.

Changes to pain management following discharge home after day surgery will further enhance the surgical experience for this patient population. Effective pain management is recommended for all patients. “The Joint Commission on Accreditation of Health Care Organizations (JCAHO) mandates that all individuals have the right to effective pain/symptom management, and this mandate should be part of basic clinical nursing care” (American Society of PeriAnesthetic Nurses (ASPAN), 2008). Extensive research in the area of postoperative pain assessment and management has been conducted and the findings indicate explicit improvements are available. Despite the availability of effective analgesics

and new technologies for drug administration, studies continue to find suboptimal pain management (Elvir-Lazo & White 2010; Older, Carr & Layzell 2010). Health care professionals underestimate pain when performing clinical assessment and this pain assessment is difficult because of the complex interactions between patient and practitioner (ASPAN, 2008).

Pain management modalities are multifaceted, and as complex as the patient interaction required to provide quality care to the individual. Nurses require the education and clinical support to provide comprehensive education for their patients. Without support nurses are unable to enact their moral agency, and patients are deprived of the most recent advancements in pain assessment and management techniques. Physicians and nurses working together to provide the most recent evidence based care is necessary. "To give of their best, physicians and nurses need to sustain their unique professional strengths (their knowledge, skills and ethical commitments) and they need to work in close collaboration with each other....their inability to do so constitutes an ethical failure" (Storch & Kenny, 2007, p.478).

Conclusion

Due to the rapid increase in surgical procedures performed as day surgery changes in the care of this patient population are required to improve patient care. An increase in psychological support to promote self-care is empowering for patients and families. Consistent information provision from a nurse is vital to provide psychological support throughout all phases of the day surgery patients' journey. Structured programs to address inconsistent information provision and pain care are recommended to improve patient care (Bellani, 2008; Gilmartin & Wright; 2008; Mitchell, 2010).

Organizations strive to fulfill directives with limited funds provided for specific programs.

Nurses have the knowledge to contribute to the development of health care programs that ensures health care dollars are spent wisely and effectively. A healthy moral climate in an organization ensures that all voices are heard when decisions are being made regarding program development and spending. The multidisciplinary approach, in which nurses play a key role in patient and family education, promotes collaboration and provides assurance that all are contributing to the best possible perioperative care for the surgical day care patient population.

Table: Literature Review Articles

Citation	Purpose	Method
Bellani, M.L. (2008). Psychological aspects in day-case surgery. <i>International Journal of Surgery</i> , 6, S44–S46.	An essential component of anxiety management is information provision. A combination of consistent strategies and interpersonal skills may have the potential to become the base of a formal psycho-educational plan implemented to manage anxiety.	Literature Review
Bothe, J. & Donoghue, J. (2009). Using action research to develop a model of patient centered day care. <i>Practice Development Health Care</i> , 8(3) 152–160.	The objective of this study was to develop a model of care that was patient centred, safe and effective for day surgery patients undergoing complex surgical procedures.	Qualitative-Action Research
Elvir-Lazo, O. L. & White, P. F. (2010). The role of multimodal analgesia in pain management after ambulatory surgery. <i>Current Opinions in Anesthesiology</i> , 23, 697-703.	The use of multimodal analgesia is rapidly becoming the standard of care for preventing pain after ambulatory surgery centers throughout the world.	Literature Review
Fitzpatrick, E. (2005). What characterizes the usual preoperative education in clinical contexts? <i>Nursing and Health Sciences</i> , 7, 251-258.	The difficulties with preoperative education identified in the data may be addressed through organizational investment in preoperative education.	Qualitative Grounded Theory
Gilmartin, J. & Wright, K. (2008). Day surgery: patients' felt abandoned during the preoperative wait, <i>Journal of Clinical Nursing</i> , 17, 2418–2425.	The study demonstrates that the majority of the patients felt abandoned in the preoperative stage and nurses did not recognise the importance of ongoing psychological support.	Hermeneutic Phenomenological qualitative study
Mitchell, M. (2010). General anaesthesia and day-case patient anxiety. <i>Journal of Advanced Nursing</i> , 66(5), 1059–1071.	Focusing on the timely, formal delivery of information about anaesthesia management, emphasizing the notion of 'controlled unconsciousness' and dispelling misconceptions associated with general anaesthesia may help to limit patient anxiety.	Quantitative
Older, C. G., Carr, E. C. & Layzell, M. (2010). Making sense of patients' use of analgesics following day case surgery. <i>Journal of Advanced Nursing</i> , 66(3), 511–521.	Patients' use of analgesics was a complex intentional decision-making process based on a matrix of beliefs surrounding pain, analgesics and day surgery. They did not always adhere to their analgesic regimes at home, many describing how they avoided analgesics and often withstood high levels of postoperative pain. Conclusion. Interventions need to go beyond the provision of pain management information (as in current practice), and overcome some of the erroneous beliefs held by patients.	Qualitative interpretative phenomenological analysis
Pavlin, D., Chen, C., Penaloza, D. &	This study has demonstrated that moderate to	Quantitative

<p>Buckley. P. (2004). A Survey of Pain and other symptoms that affect the recovery process after discharge from an ambulatory surgery unit, <i>Journal of Clinical Anaesthesia</i>, 16:200 –206.</p>	<p>severe pain is common after discharge from an ambulatory surgery center. It is the symptom most commonly causing patient distress after surgery, interfering with sleep, and limiting return to normal activity after discharge. Further investigation and development of surgery specific protocols for management of pain after discharge appears indicated to improve the quality of recovery after ambulatory surgery.</p>	
<p>Stomberg, M., Segerdahl. M., Rawal. N., Jakobsson. J. & Brattwall, M. (2008). Clinical Practice and routines for day surgery in Sweden: Implications for Improvement in nursing interventions, <i>Journal of PeriAnesthesia Nursing</i>, 23, (5) 311-320.</p>	<p>Appropriate nursing interventions should focus on the following:</p> <ul style="list-style-type: none"> • providing information before surgery • preoperative health screening of the patient • information/education at discharge • follow-up calls for quality assurance • information coaching the patient at home. <p>It is apparent that a dedicated day surgery nurse with a more active role would be of great importance for peri-anaesthesia support to patients and their relatives.</p>	<p>Quantitative</p>
<p>Walker, J. A. (2007). What is the effect of preoperative information on satisfaction? <i>British Journal of Nursing</i>, 2007, 16, (1) 27.</p>	<p>The provision of clear multidisciplinary written information serves not only as an aide memoire, but acts as a point of discussion for patients and continues to act as a point of reference once the patient has left the preoperative consultation. The use of written information also maximizes health professionals' time and helps reduce time spent on repetition of routine information which can be easily be delivered in written format. Preparatory information facilitates increased participation.</p>	<p>Literature Review</p>

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Appendix 1: Polit and Beck Critique of Research Studies

Citation: Authors: _____
 Title: _____
 Journal: _____
 Year: _____ Volume: _____ Issue: _____ Pages: _____

Type of study: Qualitative Quantitative Mixed

Location: _____

Key Concept: _____

Variables: Interventional/Independent Variable: _____
 Dependant Variable: _____
 Controlled Variable: _____

Framework/Theory: _____

Design Type: Experimental Nonexperimental Quasi-experimental

Specific Design: _____

Blinding: None Single Double

Description of Intervention: _____

Comparison Group: _____

Cross Sectional Longitudinal/Prospective **No o Data Points:** _____

Qualitative Tradition: Grounded Theory Phenomenology Ethnography
 Other _____

Sample: Size: _____ **Method:** _____

Characteristics: _____

Data Sources: Self Report Observational Biophysiologic Interview
 Other: _____

Description of Measures: _____

Quality: _____

Statistical Tests: Bivariate T-Test ANOVA Chi-Square Pearson's R Multi Var
Multiple Regression: MANOVA Logistic Regression Other: _____

Findings: _____

Effect Sizes: _____

Themes: _____

Recommendations: _____

Strengths: _____

Weaknesses/Limitations: _____

(Adapted from Polit & Beck, 2008, p. 120.)Date: 2000-2010

Population: Day care Patients **Subject:** Pain, anxiety and information provision

Sample Size: Quantitative= > 100 Qualitative= ≥ 10



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**PHYSICIAN ORDERS
ADULT SURGICAL DAYCARE
PRE-OP ANAESTHETIC ORDERS**

Bar Code Area

Bar Code Area

Patient Data

ADDI000001A

Rev: August 2010

Page: 1 of 1

• Must do Optional, Physician please check (✓) as appropriate. (Physician please cross out and initial orders not indicated.)

- Patient to take all regular medications on day of surgery **EXCEPT** Diabetic medications and anticoagulants.
- NPO after Midnight **EXCEPT for CLEAR Fluids** up to 3 hours pre-op.
- Glucometer for all diabetic patients pre-operatively.
- IV Fluids – **NaCl 0.9 %** @ 100 ml/hour
- IV Fluids – **D5W & 0.45 NaCl** @ 100 ml/hr. (consider for patients with diabetes)
- CHLORHEXIDIDNE 0.12% (ORO-CLEANSE)** oral rinse 30 ml swish and spit 20 to 30 minutes pre-op
- Other: _____

ROUTINE PRE-OPERATIVE MEDICATIONS

- **RANITIDINE** 150 mg PO 90 minutes pre-op.
- **ACETAMINOPHEN** 1000 mg 90 minutes pre-op.

OTHER PREOPERATIVE MEDICATIONS

- NAPROXEN** 500 mg PO **on admission** pre-op.
- NAPROXEN** 250 mg PO **on admission** pre-op (patients older than 75 years **or** less than 50 kg.).
- METOCLOPRAMIDE** 10 mg PO **on admission** pre-op.
- SALBUTAMOL** 5 mg via nebulizer 30 minutes pre-op.
- IPRATROPIUM** 0.5 mg via nebulizer 30 minutes pre-op.
- Other: _____

Date: _____

Physician's Signature: _____ Print Name: _____