Patients who have undergone surgical procedures often have self-care concerns in their preparation for discharge from the hospital. This article examines the research literature about information needs of postoperative patients prior to their discharge. The most common concerns were the incision/wound care, pain management, activity level, monitoring for complications, symptom management, elimination, and quality of life. Because of their clinical knowledge of the perioperative experience, wound, ostomy, and continence nurses and other advanced practice nurses have a critical role in the development of discharge-educational programs for postoperative patients and caregivers. Because unmet discharge needs can contribute to poor patient outcomes and readmission, it is critical that wound, ostomy, and continence nurses, advanced practice nurses, and clinical staff nurses accurately identify patients' informational needs and find ways to meet these needs especially with the aging population, new/advanced surgical procedures, vulnerability/poverty, and literacy level of patients.

Surgical procedures often result in an altered ability to provide self-care because of pain and fatigue; in addition, many individuals are dealing with an open or closed wound. The fastest growing segment of the population comprises persons older than 65 years, and this aging of the U.S. population is expected to increase the demand for surgical services by 14% to 47%.

Important goals in perioperative patient management include the prevention of complications and the preparation for discharge. Throughout the hospitalization, the nurse has a critical role in providing information to patients and their families to help them come to terms with their current condition and to prepare them for the future. However, the length of the hospital stay is usually short; this impacts the time available for patient teaching and also means that much of the postoperative care and monitoring is done at home by patients and their families. Complications that occur following discharge can be costly; for example, studies of surgical site infection show total costs following discharge can be costly; for example, studies of surgical site infection show total costs following discharge ranging from $5155 to $6200 compared with $1773 for persons without an infection.

Wound, ostomy, and continence (WOC) nurses and advanced practice nurses (APN) have clinical expertise in the care of patients who have undergone surgery. Knowledge of the research literature about patients’ postoperative information needs may aid WOC nurses and APNs to focus better on discharge teaching and to assist other nurses in the development of guidelines for working with postoperative patients. This article focuses on the research literature on information needed by patients prior to discharge, with a particular focus on the patients who have undergone surgery. Literature from 1990 through 2004 with key words such as patient discharge, hospital discharge, and patient teaching was examined in PubMed and CINAHL; all papers were written in English and were about adults. We recognize that the length of hospitalization has decreased and operative procedures have evolved over the 14-year span of this

Barbara Pieper, PhD, RN, FAAN, CWOCN, CS, Professor/Nurse Practitioner, College of Nursing, Wayne State University, Detroit, Mich.
Mary Sieggreen, MSN, APRN, BC, CNV, Nurse Practitioner, Vascular, Harper University Hospital, Detroit, Mich.
Barbara Freeland, MSN, APRN, BC, CDE, Clinical Nurse Specialist, Diabetes, Harper University Hospital, Detroit, Mich.
Pauline Kulwicki, MS, APRN, BC, CNRN, Clinical Nurse Specialist, Neurosciences, Harper University Hospital, Detroit, Mich.
Madelyn Frattaroli, MSN, RN, APN, Nurse Practitioner, Critical Care, Harper University Hospital, Detroit, Mich.
Deborah Sidor, MSN, CCRN, APRN, BC, Clinical Nurse Specialist, Critical Care, Harper University Hospital, Detroit, Mich.
Maria Teresa Palleschi, MSN, RN, CCRN, Clinical Nurse Specialist, Critical Care, Harper University Hospital, Detroit, Mich.
Jerry Burns, ACRN, CS, CNNP, Nurse Practitioner, HIV/AIDS, Harper University Hospital, Detroit, Mich.
Donna Bednarski, MSN, RN, CNN, CS, CNP, Nurse Practitioner, Renal, Harper University Hospital, Detroit, Mich.
Beth Garretson, MSN, APRN, BC, Nurse Practitioner, Bariatric Surgery, Harper University Hospital, Detroit, Mich.

Corresponding author: Barbara Pieper, PhD, RN, FAAN, CWOCN, CS, College of Nursing, Wayne State University, 5557 Cass Ave, Detroit, MI 48202 (e-mail: bapieper@comcast.net).
Physicians and nurses continue to have concerns at discharge that may not be affected by time.

### Educational Needs of Patients Following Cancer Surgery

Galloway and colleagues examined information needs and the effect of symptoms on activities of persons prior to and following hospital discharge for lung cancer surgery. Forty patients completed the Patient Learning Need Scale, a 50-item perception scale of the importance of learning needs related to self-management of healthcare after discharge. Patients were interviewed twice: 48 to 72 hours prior to discharge and a mean of 24.5 days after discharge. The four areas of greatest needs identified by patients prior to discharge were to prevent, recognize and make judgments about complications; activity guidelines; incision care; and impact of cancer on present and future life. The patients wanted a moderately high level of information before discharge, and information needs were not affected by the patient’s age or educational level. Once home, the importance of information about symptoms (loss of appetite, cough, fatigue, pain, and breathlessness/dyspnea) increased in relation to other aspects of care. Fatigue had the greatest impact on self-care activities, although pain was a major interfering factor. The authors concluded that these patients had many information needs and that providing information might help to optimize patient functioning. This study showed that patients were able to predict their informational needs related to recovery at both of the data points of the study; the primary needs were identified as information about treatment, possible complications, symptom management, and medications.

### Educational Needs of Patients Following Abdominal Surgery

Hodgson and Given examined psychosocial and disease-specific factors that influenced the functional recovery in older adults (n = 172) undergoing surgery for lung, prostate, breast, and colorectal cancers. Pain and fatigue were the most common and most severe symptoms reported by patients after discharge. Psychological well-being was a significant factor influencing functional recovery. Comorbidities and symptom severity were significantly associated with a decreased probability of recovery.

Galloway and Graydon examined informational needs, symptom distress, and uncertainty among patients who had undergone surgery for colon cancer. Forty patients, aged 43 to 89 years, were interviewed before discharge; of these, 28 agreed to be interviewed about 4 weeks after discharge. Information that patients rated as highly important included understanding the treatment, complication management, diet and activity guidelines, and symptom management. Because the relationship between preinformation and postinformation needs was significant, the authors concluded that patients were able to predict their need for health information prior to discharge. Perceived uncertainty about the diagnosis, treatment, and symptoms was associated with an increase in expressed discharge-information needs.

Anthony and Hudson-Barr interviewed 44 patients (mean = 59.2 years) undergoing abdominal surgery to determine their information needs and preference for involvement in care; patients were interviewed 3 times (prior to their presurgical testing appointment, within 24 hours prior to discharge, and after discharge). Identified information needs included access to care, wound/ostomy care, medications, pain, complications, nonphysical concerns such as depression, worry, and finances, requests for information about their procedure and diagnostic tests, and personal habits. The most frequently identified needs were dietary guidelines and activity guidelines (functional activities allowed at home). Thirty-seven nurses also identified and ranked predischarge needs for these patients; nurses’ frequently identified needs were wound/ostomy care and complication management.

Breemhaar and colleagues used open-ended interviews and observations on multiple occasions with 21 patients undergoing either cholecystectomy or herniorrhaphy. Almost half of the patients reported fear of anesthesia, postoperative pain, and postoperative side effects. They desired more information about discharge and recovery at
The authors noted that patients leaving the hospital may not anticipate homecare problems; in addition, they may not be concerned about the limitations of their knowledge. Nurses need to be aware of the difficulties that the patients may face at home.

Zalon12 examined pain, depression, and fatigue among 60 older adults undergoing major abdominal surgery, in terms of impact on functional status and self-perception of recovery. These patients completed questionnaires 4 times ranging from during hospitalization to 3 months after discharge. Pain, depression, and fatigue accounted for significant percentages of the variance in functional status (13.4% at 3 to 5 days; 30.8% at 1 month; 29.1% at 3 months) and perception of recovery (12.3% at 3 to 5 days; 33.2% at 1 month; 16.1% at 3 months). The author concluded that pain, depression and fatigue can significantly impact the postoperative recovery and should be evaluated further.12

Pain, depression, and fatigue can significantly impact the postoperative recovery and should be further evaluated.

Miscellaneous Procedures

Zylinski13 used a case study approach with a semistructured interview to evaluate the quality and quantity of patient education for 10 surgical patients who had surgery for hernias or varicose veins. The interviews were done within 4 weeks of discharge at the patients’ homes. Seven nurses also completed a questionnaire about perioperative care. Zylinski13 found limited documentation of teaching and care by nurses, though the nurses stated that the discharge teaching formed the largest part of their patient education responsibilities. Seven patients remembered receiving some advice at the time of discharge, but they had to be prompted to remember what was taught. Patients expressed the need for more information about bruising and swelling, pain, sensation to be expected, care and use of bandages, description of the operation, cause of the condition, diagnostic tests, and expected pattern of rehabilitation. Patients did not receive information about smoking, alcohol, exercise, and diet, though these were topics that could have affected wound healing.

Using a semistructured interview format, Holmes and Lenz14 studied the perceived self-care informational needs of patients undergoing elective lumbar surgical procedures. Fifteen patients were interviewed preoperatively; 13 of them were interviewed again 4 to 6 days after discharge. Preoperatively, the most common informational need was the amount of activity or exercise that could be done after surgery (46.7%). Other areas of concern expressed preoperatively were return to work, eligibility for...
homecare, when to shower, when to start driving, and dressing care. After discharge, patients were asked what it was like on the day discharge information was given. Patients expressed some issues with teaching as 2 were in pain and 6 were sleepy; explicit, informative discharge instruction was reported by only 4 persons (30.8%). Two said the teaching was not clear, and 2 said there were inconsistencies in teaching about wound care, bathing, and getting out of bed. When asked where they sought information after discharge, 5 said they used the discharge instruction sheet provided by the nurse and 5 called their physician and used the discharge sheet. A majority (69.2%) received a postdischarge phone call from a clinical nurse specialist and 44.4% found it helpful. The study highlighted the difficulty in finding the ideal time to do patient teaching as well as the areas in which the patients felt the information was deficient.

Devine and Cook\(^\text{15}\) performed a meta-analysis of 102 studies to examine how psychoeducational interventions influence recovery, pain, psychological well-being, and satisfaction with care among hospitalized surgical patients. Psychoeducational interventions were defined as treatments that were psychological and/or educational in content such as providing health-related information, teaching patients skills, and providing patients with psychosocial support. Psychosocial interventions reliably facilitated the recovery of surgical patients in terms of length of hospital stay, resumption of normal activities, incidence of medical complications, and postsurgical respiratory function. Psychoeducational interventions reliably reduced surgical pain, increased psychological well-being, and increased satisfaction with care.

### Ambulatory Surgery

Watt-Watson and colleagues\(^\text{16}\) examined pain management of patients (mean age = 41 years) discharged after ambulatory surgery for several procedures. The patients (n = 180) were interviewed over the telephone 4 times ranging from 24 hours to 7 days after discharge. Pain was found to be severe especially in the first 24 hours. About 20% of the patients experienced analgesic adverse events within the first 72 hours; the most common side effects were constipation and nausea. Most of the patients received no information at discharge about analgesic use in terms of inadequate pain relief and/or adverse events. The authors did not explore additional concerns of same-day surgery patients.

Reid\(^\text{17}\) used a nonexperimental descriptive survey to examine the informational needs of patients undergoing day-stay surgery. Ten nurses who worked in the day surgery unit participated in a focus group from which the questionnaire was developed; 15 staff nurses then completed the questionnaire. Nurses identified the information needed preoperatively as the perioperative routine/plans for discharge (n = 8), orientation to the unit (n = 6), staff introductions (n = 3), and the information regarding what the procedure feels like (n = 3). Factors that affected the information given to patients included (n = 4 each) the patient’s understanding/mental competence, the information desired by the patient, and the degree of perceived anxiety. Thus, the nurse’s assessment affected the information that the patient received. The primary reasons to give patient information were to increase the patient’s control over the situation, reduce the patient’s anxiety, meet the patient’s need, afford the patient reassurance, and prepare for the “unknown.” Time constraints due to staff shortages restricted the information given to patients and less information was given when the patient verbalized an inability to cope with it or had impaired cognitive function. If a patient refused information, the nurse respected this choice, but tried to determine the reason.

Waterman and colleagues\(^\text{18}\) used interviews to examine postoperative pain, nausea and vomiting among 55 patients (mean age = 39 years) who had undergone ophthalmic outpatient surgery. The participants were telephoned 8 days after their surgery and asked about their experiences with pain, nausea, and vomiting while in the hospital and following discharge. For about one-third of the patients, the experience was mostly tolerable; for another third, the experiences were worse than they had imagined, and for some, the pain was severe. The patients were grateful for the preoperative and postoperative instructions and especially liked the written information, but they also desired information about the side effects of medications.

Patients were grateful for preoperative and postoperative instructions, and especially liked the written information, but they also desired information about the side effects of medications.

### Medical-Surgical Patients

Boyle and colleagues examined the posthospital concerns of medical (n = 50) and surgical (n = 100) patients within 4 months after hospitalization.\(^\text{19}\) Questionnaires were completed by the patients at their first return visit to the physician’s office or clinic. Important patient concerns were understanding their health progress (67%), appropriate activity level (66%), knowledge of insurance coverage (61%), information regarding medications and side effects (52%), understanding pain management (51%), and knowing when to consult the physician (49%). Surgical patients were more concerned about the appropriate level of activity and pain control than medical patients. The authors noted that short hospitalizations may prevent patients from comprehending information given by nurses.
and prevent them from realizing the extent of the problems they will face at home.\textsuperscript{13} They concluded that preparing patients for discharge should be a high priority for nurses.

Bubela and colleagues\textsuperscript{20} developed and used the Patient Learning Need Scale for a study involving 128 medical and 173 surgical patients. The mean age of participants was 53.8 years (SD = 18); 85 had a diagnosis of cancer. Medical patients reported higher information needs than surgical patients; the authors related this to longer hospital stays and greater number of medications. Patients with cancer also had higher informational needs. The data in this study also suggested higher informational needs among female patients and those with less education.

Charles and colleagues\textsuperscript{21} examined patients’ reports about their care in Canadian hospitals. Of the 4599 persons who agreed to be interviewed over the telephone, 61% were surgical patients; however, results were presented globally and not separated by medical or surgical conditions. In terms of discharge information, the patients identified the following deficits: lack of information regarding the complications to watch for at home (39%), lack of information regarding time frame for resumption of normal activity (32%), lack of information regarding activity restrictions and guidelines (29%), and lack of information regarding measures to promote recovery (24%).\textsuperscript{21} Twenty-six percent of the patients did not believe that the care provider at home was given enough information to promote recovery. Pain was not addressed as an element of discharge instruction, and 36% of those having diagnostic tests were not told how much pain to expect.

\section*{What Can Be Learned and What Should Be Done?}

We examined research literature about the information needed by surgical patients at discharge; Table 1 summarizes the studies. The studies were small and many lacked information about the research process or design, such as description of the sample, power analysis, or psychometrics of the instrument. In addition, older adults were underrepresented in these studies. However, this literature review clearly indicates that the information needed by postoperative patients is an international concern, and these needs will increase as the population ages and undergoes more surgical procedures and more day-stay procedures. Because unmet discharge needs can contribute to poor patient outcomes and readmission, it is critical that nurses accurately identify patients’ informational needs and find ways to meet these needs.

The 3 major areas of “informational” needs according to the studies reviewed were pain management, incision/wound care, and activity guidelines (Table 1); therefore, educational tools and programs should focus on these areas. However, it is also important to assure that the educational programs address individual “nonstandard” concerns and the home caregivers’ concerns and ability to provide the needed care. When caregivers are unable to provide essential care, additional resources must be identified.\textsuperscript{22}

Patients need information about strategies to manage symptoms and pain. Pain was one of the most common variables in the studies reviewed (Table 1). Patients who have not been educated regarding pain management may return to the hospital for additional care, thus increasing the cost of care. In addition, pain increases anxiety and stress for both the patient and the caregiver. Pain may not be acknowledged or documented in a patient’s record; patients need to know the degree and duration of pain after surgery as well as the effective use of analgesics and other pain relief measures.\textsuperscript{23,24}

Another area of unmet need was the instruction regarding incision and wound care. Lack of knowledge of wound care may result in inadequate wound care and increased risk of infection. Patients and their family members should be taught basic wound assessment and the importance of reporting adverse events to the provider. The importance of assessment is highlighted by data indicating that two-third of sternal wound infections following cardiac surgery were identified after discharge.\textsuperscript{25} Surgical site infections have been associated with a decline in mental health, increased visits to outpatient clinics and emergency departments, increased radiology studies, increased readmissions, and increased utilization of home healthcare.\textsuperscript{3} Little information is available about a patient’s beliefs about wound healing and dressings, and these beliefs can greatly influence the care that is provided. In addition, the patient’s health insurance will affect availability of wound care supplies. Future research needs to examine in more detail patients’ perceptions of wound care and healing, comfort level in doing wound care, and wound care supplies that the patients are willing and able to purchase.

General care is a large concept that includes activity, treatment needs, diet, well-being, and personal care. Activity level and dietary guidelines are frequently identified as areas of information need. Activity levels impact the return to work or return to the outpatient clinic for postoperative visits, especially if transportation is lacking. As the number of older adults increases, activity issues will become even more important.

None of the studies focused on the discharge planning for vulnerable populations. Vulnerable groups are those with increased relative risk for adverse health outcomes.\textsuperscript{26} These groups include people of low social and economic status who lack environmental resources; these individuals have additional challenges related to poverty, illiteracy, type of insurance (if available), and transportation. Poverty

\textbf{Needs will increase as the population ages and undergoes more surgical procedures and more day-stay procedures.}
<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Country</th>
<th>Sample Size</th>
<th>Age, Yr*</th>
<th>Incision Wound</th>
<th>Pain</th>
<th>Activity</th>
<th>Complications</th>
<th>Manage Symptoms</th>
<th>Fatigue</th>
<th>Elimination</th>
<th>Well Being</th>
<th>Quality of Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bubela²⁰</td>
<td>1990</td>
<td>Canada</td>
<td>128 medical; 173 surgical</td>
<td>M = 53.8; R = 18-80</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boyle¹⁹</td>
<td>1992</td>
<td>U.S.</td>
<td>50 medical; 100 surgical</td>
<td>R = &lt;25-&gt;65</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Galloway⁴</td>
<td>1993</td>
<td>Canada</td>
<td>40</td>
<td>M = 63; R = 42-81</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zylinski¹³</td>
<td>1993</td>
<td>England</td>
<td>10</td>
<td>R = 21-65</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charles²¹</td>
<td>1994</td>
<td>Canada</td>
<td>1785 medical; 2814 surgical</td>
<td>R = 18≥75</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breemhaar⁶</td>
<td>1996</td>
<td>The Netherlands</td>
<td>54</td>
<td>R = 18≥51</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Galloway⁶</td>
<td>1996</td>
<td>Canada</td>
<td>40</td>
<td>M = 66.2; R = 43-89</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Henderson¹¹</td>
<td>1996</td>
<td>Australia</td>
<td>20</td>
<td>M = 34; R = 16-71</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Holmes¹⁴</td>
<td>1997</td>
<td>U.S.</td>
<td>15</td>
<td>R = 18≥70</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waterman¹⁸</td>
<td>1999</td>
<td>England</td>
<td>55</td>
<td>M = 39; R = 20-72</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jacobs⁷</td>
<td>2000</td>
<td>Canada</td>
<td>45</td>
<td>M = 38.8; R = 18-76</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Henderson¹⁰</td>
<td>2001</td>
<td>Australia</td>
<td>158</td>
<td>M = 48; R = 14-85</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anthony⁶</td>
<td>2004</td>
<td>U.S.</td>
<td>44</td>
<td>M = 59.2; R = 27-87</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Watt-Watson¹⁶</td>
<td>2004</td>
<td>Canada</td>
<td>180</td>
<td>M = 41</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zalon¹²</td>
<td>2004</td>
<td>U.S.</td>
<td>192</td>
<td>R = ≥60</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hodgson⁵</td>
<td>2004</td>
<td>U.S.</td>
<td>172</td>
<td>R = ≥65</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*M, mean age in years; R, range of ages in years; some authors did not give exact numbers.
and payment for care are serious issues affecting healthcare, and the number of persons who lack health insurance in the United States continues to increase.25 Persons who lack health insurance have greater unmet health needs and poorer overall health. In addition, poverty determines the locality in which a person lives, affects the nutritional status, and is associated with the use of tobacco, alcohol, and illicit drugs. Future research should include a focus on the special needs of vulnerable patient populations.

A large number of Americans have limited ability to read and write; data indicate that many patients read and comprehend at a level 2 or 3 grades lower than the level of formal education completed in school.28 Compromised literacy is particularly common among the older people.29,30 Health literacy is defined as a person’s ability to obtain, process, and understand basic health information and services in order to make appropriate healthcare decisions.31 Patients being prepared for discharge must be taught in ways so that they can absorb the content, appreciate its relevance, and believe it so that they will act on it. Health literacy clearly needs to be a focus of future research.

Teaching methodology is another aspect to be considered in research related to patient education. A combination of written and verbal instruction is the most commonly used approach, and this “dual format” has been shown to enhance patient learning and patient satisfaction. A Cochrane review of written and verbal information at discharge recommended the use of both.32 Research regarding efficacy of various approaches to patient education would be extremely helpful to those providing information to patients and their families.

A Cochrane review of written and verbal information at discharge recommended the use of both.

Hassling and colleagues33 described a Web-based information system for patients undergoing coronary artery bypass surgery (CABG) and valve replacement. Patients reported the Web-based system was helpful; they could not remember some of the information provided in the hospital for various reasons including the time of education, sedation, and pain because they were not receptive to learning at the time the teaching was done. However, not all patients were comfortable with computer-based resources; therefore, this should not be the only option.

Patient education is an important and challenging component of care, and effective communication and teaching strategies are areas of practice that need continual attention. One effective strategy is use of a follow-up phone call 2 to 4 days after discharge. Pidd and McGrory34 made telephone contact with 64 patients who had undergone transurethral resection of the prostate. Sixty-nine percent of the patients stated telephone contact was the best way to reach them and 47% of patients preferred that the call had come from a nurse. A minority of patients were unable to discuss their postoperative concerns over the telephone. Although the telephone call lasted longer than a visit to a physician, the telephone calls were economical because they reduced the outpatient clinic visits. Patients did state they preferred a scheduled time for the call so that they could prepare for it. Bostrom and colleagues35 also examined the use of telephone follow-ups; their study population was a group of medical and surgical patients. They found that the patients did not usually initiate a phone call to the nurse, but if the nurse initiated the phone call, most patients had questions and problems that they had not anticipated.35,36 The areas of “most frequent questions” included dietary guidelines, follow-up appointments, complication recognition and management, activity guidelines, bowel problems, pain management, and guidelines for rest. The investigators concluded that the telephone can be a valuable and cost-effective way to monitor patient progress.36 However, providers must be aware of the difficulties associated with the telephone follow-up for vulnerable groups—incorrect telephone numbers or lack of telephone access.

One issue contributing to the problems with patient education is the lack of feedback from patients regarding adequacy and accuracy of information. Nurses need to find a way to obtain needed feedback from patients in order to strengthen their patient teaching. Devine and Cook15 noted that organizational support and resources are needed if nurses are to provide high-quality patient education on a consistent basis. The time and tools needed for patient education are fairly costly, so institutions need incentives to support psychoeducational care. Identified benefits include decreased length of stay, decreased complication rates, reduced need for medications for pain, anxiety, and nausea, and reduced time loss from productive activities. However, a Cochrane review of 11 randomized controlled trials concluded that the impact of discharge planning and patient teaching on readmission rates, hospital length of stay, health outcomes, and cost is uncertain.27 This is clearly an area in which additional studies are needed.

**Summary**

This review of research literature about postoperative patients’ discharge needs identifies 3 critical areas of information needs—pain management, incision/wound care, and activity guidelines. Patients generally want a high level of information; this information helps to optimize their functioning especially during the first 2 weeks at home. Family involvement in the patient’s care positively influences behavioral changes for the patient. Research regarding patients’ information needs especially in terms of
society’s aging population, vulnerable groups, and literacy skills is greatly needed. WOC nurses and APNs have knowledge about the perioperative experience and patient teaching. Their clinical practices often bridge inpatient and outpatient settings, giving them an understanding of what patients learned in the hospital, what they did not learn, and how they prefer to learn. Although WOC nurses and other APNs do not have time to provide all aspects of postoperative preparation for discharge, they can serve as a resource to other nurses, help develop and evaluate educational programs, and assist in the design of research studies. WOC nurses and other APNs will continue to improve patients’ preparation for discharge home, thus decreasing complications and readmission to the healthcare system.

**KEY POINTS**

Postoperative Discharge Information Needs

- Incision/wound care, pain, and activity level are primary concerns of patients discharged after a surgical procedure.
- A lack of information about postoperative self-care after discharge has the potential to increase the risk of complications.
- Research about postoperative patients’ informational needs should be done with consideration of the aging population, healthcare disparities, and literacy.
- More information is needed about what should be included in discharge teaching, when it should be done, impact of literacy on discharge teaching, and teaching methods.
- Educational programs must be continuously evaluated for their content and effectiveness.

**References**


