ORIGINAL RESEARCH

Postoperative Recovery at Home After Ambulatory Gynecologic Laparoscopic Surgery

Kathy J. Horvath, PhD, RN

The purposes of this descriptive, correlational study were to measure pain, fatigue, and functional limitations affecting the "at home" recovery process for ambulatory gynecologic laparoscopic surgery and to explore the relationships between these variables and the return to normal activities. Subjects (N = 91) recorded daily ratings of pain, fatigue, and function on a Home Recovery Log for 6 days postoperatively. The findings indicate that 95% of subjects resumed basic self-care activities such as dressing, bathing, and eating by postoperative day (POD) 3; however, less than 40% of subjects were able to perform other role functions such as shopping, laundry, and work outside of the home. A logistic regression model indicated that pain ratings and functional status on POD 2 were the best predictors of subjects who would need more than 5 days to resume their usual activities and routines. The findings have implications for preoperative teaching and telephone follow-up for ambulatory surgery patients. Preoperative teaching should prepare women for the additional days needed for recovery of instrumental activities of daily living to enable them to make alternate plans as necessary. Furthermore, because pain on POD 2 was the single most significant predictor of delayed recovery, moving the follow-up phone call from the morning to the late afternoon of POD 1 may help the nurse to identify patients who will need extra assistance with pain management.

AMBULATORY SURGERY has advantages for the patient and the health care system, including greater convenience, lower rates of hospital-acquired infections, and reduced costs.[1] However, recovery at home requires self-care and evaluation of signs and symptoms without the availability of immediate nursing assessment. Professional providers must remain clinically accountable for this patient population through the evaluation of patient outcomes.[2]

To date, the focus of most research has been on safe discharge from the ambulatory surgical suite and the evaluation of postoperative complications.[3–8] However, despite the absence of

Kathy J. Horvath, PhD, RN, is the Associate Director for Education and Program Evaluation at the Geriatric Research Education and Clinical Center (G.R.E.C.C.), E.N. Rogers Memorial Veterans Hospital (182B), Bedford, MA.

Address correspondence to Kathy J. Horvath, PhD, RN, Education and Program Evaluation, Geriatric Research Education and Clinical Center (G.R.E.C.C.), E.N. Rogers Memorial Veterans Hospital (182B), 200 Springs Rd, Bedford, MA 01730; e-mail address: kathy.horvath@med.va.gov.

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surgical complications, such as bleeding and infection, ambulatory surgery patients can suffer substantially from pain, fear, and an overwhelming sense of vulnerability.[9,10] In one study, symptom distress and decreased functional status persisted for 7 days postoperatively for some patients.[11] Pain, fatigue, and functional status appear to be the primary factors influencing return to usual activities and routines after ambulatory surgery.[2,12–14] However, postoperative fatigue has not been measured systematically despite frequent patient reports, and further research is needed to explore the relationships between the variables and how they may influence length of time to return to normal daily activities.

The purposes of this study were (1) to measure pain, fatigue, and functional limitations affecting the "at home" recovery process for 6 days after ambulatory surgery and (2) to explore the relationships between pain, fatigue, function, and demographic variables and their effect on the return to usual activities and routines.

Review of the Literature

Recovery from ambulatory surgery is defined by patients as an absence of symptoms and a resumption of their usual activities and routines.[15] Patients' perceptions of the extent of their recovery can differ significantly from the same estimations given by trained nurse observers.[16] In some studies, high and low levels of recovery were not related to age, sex, education, work status, procedure type, previous surgical experience, or the number of hours between completion of the surgery and discharge.[2,12,17] However, other studies have suggested that type and length of surgical procedure and age influenced the symptom distress and length of recovery of ambulatory patients.[3,11]

National acute pain management guidelines recommend that a patient's average pain rating on a 10-point scale be maintained at a 3 or lower[18,19]; however, this is not being accomplished for many patients.[12–14,20] The negative consequences of postoperative pain are of critical significance to patient care. Unrelieved acute pain creates negative consequences such as hypertension, tachycardia, hypercoagulable states, and reduction in respiratory volumes.[21] Pulmonary dysfunction after surgery is generally attributed to pain, not to narcotics. Moderate and severe pain can lead to shallow breathing and cough suppression, or an attempt to "splint" the injured area.

The undertreatment of pain has been a longstanding problem that is associated with many myths and misperceptions about the effects of narcotics, variation in prescriptive practices, and individual variation in analgesic requirements.[22,23] The designation of pain as the "5th vital sign"[24] and new standards for pain management[19] have helped to improve clinical practices for acute pain in institutional settings.[25] However, pain management at home after ambulatory surgery remains a significant source of patient distress, delayed recovery, and dissatisfaction.[11,20]

The North American Nursing Diagnosis Association has defined fatigue as "an overwhelming sustained sense of exhaustion and decreased capacity for physical and mental work."[26] Fatigue is a symptom similar to pain in that it is a multidimensional subjective experience.[27,28] Acute fatigue is considered to have a protective effect and responds to interventions such as rest, sleep, nutrition, or change in stimulation.[29] Protective fatigue allows the person to restore homeostatic processes by providing a warning signal of the need for rest and restoration. However, under conditions of unrelenting demands in internal or external environments, energy reserves can become chronically depleted as demands exceed personal resources for coping.[29]

Surgical recovery is a patient experience where the symptom of acute fatigue is manifested.[30,31] The nature and magnitude of fatigue after ambulatory surgery is difficult to determine be-

cause fatigue has not been measured with a standard instrument in most studies of postoperative recovery at home. Kleinbeck and Eells,[2] reporting on 171 ambulatory surgery patients with laparoscopic procedures, did find that preoperative fatigue levels were related to delayed recovery. Furthermore, Schwenk et al[31] found that postoperative fatigue on days 2 to 7 after ambulatory surgery was significantly less for patients who had a laparoscopic versus a conventional colorectal resection.

The importance of functional health status in nursing practice and research has been well documented.[32,33] Functional status incorporates elements of self-care, mobility, and role functioning, which often have more meaning for the patient's experience of illness than biochemical factors associated with a disease process.[34–36] Recently, researchers have begun to develop new tools to measure functional status after ambulatory surgery, with a focus on the first 2 postoperative days.[16,37] However, the importance of measuring functional status over the full recovery period was demonstrated by Swan et al.[11] They found that patients undergoing laparoscopic procedures had recovered basic activities of daily living by postoperative day 7, but had not yet returned to baseline levels for instrumental activities of daily living associated with role functions.

In summary, recent research suggests that recovery from ambulatory surgery can be delayed for more than 7 days and is influenced by pain, fatigue, and functional status. The variables are interrelated because pain and fatigue can decrease activity; and reduced activity can increase feelings of fatigue and further diminish performance. However, studies to date have not measured these variables simultaneously, nor explored their interrelationships in the same patient population over the full recovery period.

Research Questions

The current study was designed to answer the following research questions: (1) What are patients' patterns of pain, fatigue, functional limitations, and return to usual activities during the first week of recovery at home after laparoscopic gynecologic ambulatory surgery? (2) To what degree do pain, fatigue, and functional limitations predict the likelihood that a subject will have a delayed recovery after ambulatory gynecologic laparoscopy?

Methods

Consecutive, nonrandom sampling was used to select study participants. During the study period, 224 women were scheduled for gynecologic, laparoscopic procedures at the ambulatory surgical unit (ASU) of a large, urban, acute care medical center in the northeastern United States. Following approval by the Institutional Review Board, an introductory letter and a one-page abstract of the study explaining the aims of the study and the sample criteria were sent to surgeons and gynecologists at the study site. The investigator used the OR schedule for ambulatory surgery to identify women who were scheduled for laparoscopic surgery several weeks in advance. The investigator confirmed each woman's ability to read English by checking the list of patients approved for a preoperative assessment by telephone (the patient must be able to read and speak English to qualify for this option). If the patient was on the telephone list, the investigator sent her an informed consent letter explaining the study and her right to participate or not, risks, benefits, and right to withdraw at any time. The investigator then called the women several days later to obtain verbal consent to participate. The subject's willingness to complete the questionnaires indicated informed consent.

If the patient was not approved for a preoperative assessment by telephone, the investigator obtained the information about her English language proficiency from the chart at the time of the preoperative visit. If the patient did not require an interpreter, she was invited to participate in the study on the day of surgery and given the informed consent letter. This alterna-

tive approach was necessary because the preprocedure testing was scheduled too close to the day of surgery to send a letter and call the patient beforehand.

Of the 224 women scheduled for laparoscopic gynecologic surgery, 139 met the inclusion criteria for the study. Eligible patients included those undergoing procedures for both diagnostic and treatment conditions such as infertility, endometriosis, and ovarian cysts. Subjects were eligible to participate in the study if they were discharged directly from the ASU, could read English, and had no cognitive impairment that would prohibit understanding the questions on the instruments. Women with cancer-related conditions were excluded. Subjects were also excluded if they were admitted to the hospital preoperatively or postoperatively.

Of the 139 women who met the inclusion criteria, 26 chose not to participate (19% refusal rate), and 22 agreed but did not complete the study (19% attrition). The overall sample size was 91 subjects, which was sufficient for all proposed analyses. The final sample had the following characteristics: a mean age of 35.8 years; predominantly white (83.5%); married (73.7%); and an average combined household income of $79,427.00. Most had taken educational courses beyond high school (81.3%), and almost 50% had a bachelor's degree (Table 1).

Table 1. Demographic Characteristics of Study Sample

Characteristic	Participants (N = 91)
Mean age (SD)	35.8 (6.7)
Mean income (SD)	$79,427 ($49,448)
Marital status (%)	
Married	67 (73.7)
Not married	24 (26.3)
Racial background (%)	
African-American	10 (11.0)
Asian	1 (1.1)
Caucasian	76 (83.5)
Hispanic-American	4 (4.4)
Educational level (%)	
<High school	5 (5.5)
High school graduate	12 (13.2)
1–3 years college or technical school	27 (29.6)
College graduate	20 (22.0)
Graduate coursework and/or degree	27 (29.7)

Prior to discharge on the day of surgery, the investigator gave the subjects (or family members) a large manila envelope that contained the Home Recovery Log, a 6-page packet that included instruments for the patient to record her pain, fatigue, and function on the afternoon of each postoperative day (POD) between 4 PM and 7 PM. The investigator explained the Home Recovery Log at the time of consent, instructions were written on the first page, and the investigator's telephone number was written on the front of the packet in case the patient had questions when she returned home. The ambulatory surgical nurses assisted the investigator by ensuring that the patients/families had the packet when they left the ASU. The investigator called subjects on PODs 3 and 5 to remind them to complete the Home Recovery Log and mail it back to the investigator in the prestamped return envelope.

Pain was measured each day using a numeric rating scale with 11 increments and the following anchors: 0 = no pain; 5 = moderate pain; 10 = worst pain imaginable. The patient's self-report of pain is considered to be the most valid indication of pain intensity[18,22,38] because of its highly subjective nature. Numerical rating scales have been shown to be both reliable and valid.[39,40] In addition, a single item numeric rating scale is a practical tool to use for repeated measures.

Fatigue was measured with use of the Rhoten Fatigue Scale, a numeric rating scale with 11 increments ranging from 0, which represents "not tired, feelings of energy and pep," to 10, which represents "total exhaustion."[41] Rhoten[41] demonstrated concurrent validity between the Fatigue Scale and independently ob-

served levels of fatigue. Other single-item subjective measures of fatigue, such as fatigue visual analog scales, also have been shown to be valid measures of postoperative fatigue.[42]

Function was measured with use of the Katz Index of Activities of Daily Living and Instrumental Activities of Daily Living.[35] This index measures universal self-care activities needed for basic, daily living including eating, bathing, dressing, transfer, and toileting.[43] In addition, instrumental activities of daily living, such as cleaning, shopping, and transportation, were added to the original index to capture the functional status of ambulatory populations. Reliability and validity have been documented. For example, Ciesla et al[44] demonstrated an internal consistency reliability of .87 on a dichotomous response version of the index.

Construct validity of the Katz Index also has been demonstrated. For example, there is a strong negative association between level of function and age in community-based elders[35] and in hospitalized patients.[45] Three response categories were used for this study: (1) can perform without assistance, (2) needs assistance, and (3) cannot do. The responses were obtained for the 8 items on the index (eating, bathing, dressing, transfer, using the toilet, shopping, cleaning, and transportation), and the scores were summed. Possible scores ranged from 8 to 24, with 8 representing independent function and higher scores representing progressively more limited function. Internal consistency reliability of the Katz Index for the current study was acceptable with a range from .75 on POD 4 to .83 on POD 2.

Return to Usual Activities (RTA), the outcome of the recovery process as described by patients,[15] was measured by subject self-report to obtain the woman's perception of the end of her recovery process. Return to Usual Activities was reported as the number of days (beginning the day after surgery) until the subject perceived she had returned to her baseline of usual, routine activities (activities include work outside or inside the home); possible scores ranged from 1 to 6 days.

Results

Because one dimension of the outcome of interest, recovery, is the absence of symptoms, Table 2 displays the percentages of subjects at each level of pain for PODs 1 to 6. At the time of discharge from the ASU, 91.2% of subjects rated their pain as mild, an indication of adequate pain management by professional standards.[18,19] However, on the afternoon of POD 1, the percentage of subjects reporting moderate pain (40.7%) had increased and was almost equal to those reporting mild pain (44%). It was not until POD 6 that pain ratings in the mild range are reported again by close to 90% of subjects. Thus, subjects were found to have excellent pain control at the time of discharge, as required by discharge criteria. However, by the afternoon of the first day after surgery (POD

Table 2. Percentage* of Subjects Reporting Mild, Moderate, or Severe Pain for 6 Postoperative Days

		Time					
	At Discharge	POD 1†	POD 2	POD 3	POD 4	POD 5	POD 6
Pain (%)							
Mild (0–3)	91.2	44.0	56.1	67.1	75.9	82.5	86.9
Moderate (4–6)	8.8	40.7	36.3	27.5	18.7	12.1	6.6
Severe (7–10)		15.4	7.7	5.5	4.4	4.4	4.4

Abbreviation: POD, postoperative day.

*Percentages on each day may not total 100% because of occasional missing data.

†All measures were recorded between 4 PM and 7 PM each day.

Table 3. Percentage* of Subjects Reporting Mild, Moderate, or Severe Fatigue for 6 Postoperative Days

	Time					
	POD 1†	POD 2	POD 3	POD 4	POD 5	POD 6
Fatigue (%)						
Mild (0–3)	26.4	38.5	57.2	60.5	69.3	78.1
Moderate (4–6)	46.2	47.3	33.0	30.8	24.2	12.1
Severe (7–10)	23.1	13.2	9.9	6.6	4.4	6.6

Abbreviation: POD, postoperative day.
*Percentages on each day may not total 100% because of occasional missing data.
†All measures were recorded between 4 PM and 7 PM each day.

1), 56% of subjects had moderate or severe pain with ratings of 4 or greater.

Symptom distress affecting the recovery process was also monitored by measuring subjects' fatigue levels (Table 3). Fatigue was the symptom that subjects spontaneously complained about most often during the reminder phone calls, saying that the severity was much worse than expected. On POD 1, only 26.4% of subjects had mild fatigue ratings, and by POD 3, a total of 57.2% of the sample experienced mild fatigue, leaving almost half of subjects with moderate to severe fatigue on POD 3.

The second dimension of recovery as defined by patients is return to usual activities and routines. The measures for Independent Function and Return to Usual Activities are displayed in Table 4. Notably, POD 3 was the day that most subjects were told they would be able to resume their usual activities, yet only 27.5% of subjects rated an Independent score on the Katz Index for that day. Furthermore, only 4.4% of subjects perceived that they had resumed their usual activities by POD 3. Individual item scores for the Katz Index (Table 5) revealed that more than 90% of subjects were independent in basic activities of daily living such as bathing, dressing, eating, and toileting by POD 3. However, more than half of the patients in this sample needed an additional 2 to 3 days to resume instrumental activities of daily living associated with role functions such as shopping, cleaning, and working outside the home.

Table 4. Percentage* of Subjects Reporting Independent or Dependent Functional Status for 6 Postoperative Days

	Time					
	POD 1	POD 2	POD 3	POD 4	POD 5	POD 6
Katz Index ADL/IADL (%)						
Independent = 8	7.7	16.5	27.5	40.7	58.2	63.7
Needs assistance and/or dependent = >8	82.4	71.4	58.2	48.3	31.9	24.2
Return to usual activities (%)	0	0	4.4	13.2	25.3	57.1†‡
Cumulative totals (%)				17.6	42.9	100

Abbreviation: POD, postoperative day.
*Percentages for each day may not total 100% because of occasional missing data.
†All measures were recorded between 4 PM and 7 PM each day.
‡POD 6 percentages include all subjects who needed 6 or more days to return to usual activities.

Table 5. Katz Index Scores for Independent Functioning on Postoperative Day 3

Function	Independent Function (%)					
	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
Basic activities of daily living						
Bathing	75.8	85.7	93.4	94.5	97.8	98.9
Dressing	78	89	92.3	93.4	97.8	97.8
Toileting	93.4	96.7	97.8	98.9	100	100
Eating	89	94.5	97.8	97.8	100	100
Getting up from bed or chair	70.3	82.4	92.3	93.4	97.8	96.7
Instrumental activities of daily living						
Cleaning	22.0	29.7	42.9	63.7	76.9	80.2
Shopping	8.8	26.4	36.3	63.7	71.4	82.4
Laundry	14.3	28.6	37.4	61.5	72.5	83.5

The variables were also tested for significant differences in scores between each day (Table 6). Scores for pain and functional status did not meet assumptions necessary for parametric statistics; therefore, nonparametric statistics were used to compute significance (Friedman Matched Samples test and Wilcoxon Matched-Pairs Signed Ranks test). Fatigue scores met assumptions for parametric statistics, and significant differences were computed with use of repeat measures analysis of variance and paired *t* tests. The means for pain ratings showed a sharp increase between the time of ASU discharge and the afternoon of the first POD because the mean was more than 3 times higher between these 2 days. The standard deviation also increased, showing higher scores overall and a greater range of scores. The mean scores for fatigue and function were also highest immediately after surgery and decreased on each

Table 6. Means and SDs for Pain, Fatigue, and Function

		Time					
	At Discharge	POD 1*	POD 2	POD 3	POD 4	POD 5	POD 6
Pain							
Mean score	1.3	4.1	3.4	2.7	2.5	1.9	1.6
SD	1.4	2.1	2.2	2.1	2.2	2.1	2.0
P†		.000	.000	.000	.007	.000	.000
Fatigue							
Mean score		5.1	4.2	3.5	3.2	2.5	2.1
SD		2.3	2.2	2.1	2.2	2.0	2.8
P†		.000	.000	.014	.000	.005	
Katz index							
Mean score		13.4	12.0	10.8	9.9	9.2	8.8
SD		3.4	3.3	2.7	2.3	2.0	1.8
P†		.000	.000	.000	.000	.000	.001
Cronbach's α	.81	.83	.77	.75	.80	.81	

Abbreviation: POD, postoperative day.

*Postoperative ratings on the Home Recovery Log were scored between 4 PM and 7 PM each day.

†*P* values measure the significance of the difference between mean scores on a POD and the preceding day. Each score on each variable is significantly different from the previous day.

Table 7. Logistic Regression Equation With Postoperative Day 2: Scores and Demographic Variables for the Outcome-Return to Activities

	B	Sig	R	Exp (B)	CI (Odds Ratio) 95% CI for Exp(B)
Pain	.7368	.0008	.2890	2.0891	1.357–3.217
Katz index	.5275	.0024	.2556	1.6948	1.205–2.384
Age	.1216	.0389	.1434	1.1293	1.006–1.267
Fatigue	−.1491	.4690	.0000	.8615	.575–1.290
Income	−.2455	.2740	.0000	.7823	.504–1.215
Constant	−11.1443		.0014		

subsequent POD. All differences between scores for each POD were statistically significant.

Logistic regression models were developed to identify early indicators for ambulatory surgery patients who would have a delayed recovery. A logistic regression produces a statistic called the odds ratio that estimates the probability of an event occurring rather than not occurring.[46] In this study, logistic regression was used to determine to what extent the variables of pain, fatigue, and functional status predicted the likelihood that a subject would need 6 or more days to recover from ambulatory gynecologic laparoscopy (Table 7). The logistic regression model with POD 2 scores produced the most accurate model for predicting who will need 6 or more days to recover, with an overall accuracy of 86.3%. The variables that made a significant contribution to the model were pain ($P < .001$), Katz Index ($P = .002$), and age ($P = .04$).

Pain scores on POD 2 were the strongest predictor of recovery in 6 days or more. For each increase in pain rating, a subject was twice as likely to need 6 days to recover (Exp [B] or odds ratio = 2.1). The Katz Index scores on POD 2 also predicted recovery in 6 or more days. With higher scores, an individual was 1.5 times more likely to need 6 days or more to recover (odds ratio = 1.7). In this study, age appeared to be a weak predictor of recovery, with less of an impact than pain or the Katz Index. Older patients were somewhat more likely to need 6 or more days to recover (odds ratio = 1.13).

Discussion

The importance of pain management for the recovery process was confirmed in this study because pain was the most significant predictor of whether a subject would have a delayed recovery process (ie, need 6 or more days to recover). The influence of pain on the return to usual activities and routines suggests the need for better pain management beyond 24 hours after surgery. Infiltration of the operative site with local anesthetics has been shown to improve pain control, but the effect is often temporary, lasting 6 to 24 hours.[47,48] This improvement in pain management allows for earlier discharge from the ASU, but 6 hours postoperatively, the benefit begins to diminish. Thus, the pain control achieved in the ASU with the typical preoperative, intraoperative, and immediate postoperative multimodal analgesic measures is not sustained for many patients on their return home.

In addition to a thoughtful pain management plan,[49] the timing of the postoperative phone call may need to be re-examined. The morning after surgery is typically less than 24 hours postoperatively, and many patients are still benefiting from analgesics given the previous day. A follow-up telephone call in the late afternoon of POD 1 may be the best time to contact patients. Almost half of the patients reported moderate

to severe pain after 4 PM on POD 1, and POD 2 pain ratings were the most significant predictor of return to usual activities. Therefore, clinical intervention to ensure adequate pain control in the evening of POD 1 could have the biggest impact on patient recovery at home and would be an important area for further nursing research.

Fatigue had a moderate but significant relationship with the other major variables. Average fatigue scores were higher than pain scores for each of the 6 PODs after surgery. However, fatigue was not a statistically significant predictor of return to usual activities and routines. One possible explanation for this finding is that acute fatigue is theorized to have a voluntary component.[27] That is, individuals with fatigue have self-perceptions about their ability to perform activities and may push themselves to maintain activity levels despite the presence of fatigue. Furthermore, fatigue and activity do not have a linear causal relationship. Although fatigue may be the result of performing activities, it also can restrict performance.[50] In addition, sleep and rest are often suggested interventions for responding to fatigue[27]; however, rest alone will not alleviate the symptom.[51] Progressive activity is needed to fully overcome feelings of fatigue. Further research is needed to fully understand the influence of acute postsurgical fatigue on return to usual activities in ambulatory surgery patients.

In light of the finding that most subjects needed at least 5 days to return to their usual activities, preoperative preparation and guidance for women having ambulatory laparoscopic surgery for gynecologic conditions needs to be presented differently. Doctors and nurses told most subjects in the study that they would need 2 to 3 days to recover at home. The findings of this study suggest a different approach in which functional status recovery can be described in 2 overlapping phases. The first phase is recovery of basic activities of daily living, which is accomplished in 2 to 3 days. Most patients can expect to be able to eat, bathe, dress, and walk short distances in this period of time. The second phase of recovery of function involves instrumental activities of daily living, which include role functions such as cooking meals, shopping for groceries, and housecleaning. For women who work outside the home, 42 subjects (46%) had resumed job activities in their usual pattern by POD 5. The overall picture that emerges is that most ambulatory surgery patients having laparoscopic gynecologic procedures need assistance with total activities of daily living for 4 to 6 days after surgery. Many women can begin these role functions on POD 4, but in a modified fashion (for example, going shopping with someone else driving or working limited hours). If modification of employment activities is not possible, then assistance with all other activities will allow the woman to conserve energy for her job. Planning ahead by precooking meals, food shopping, and housecleaning before surgery also can conserve energy during recovery.

The findings of this study are consistent with previous studies that did not find an association between demographic variables and recovery from ambulatory surgery.[2,12,17] In this study, income did not have a significant relationship with recovery, and age was a weak predictor of recovery.

The study findings have some limitations for application to ambulatory surgery patients. The study was conducted in one setting and, therefore, may not be generalizable to other patient populations. The sample characteristics reflect predominantly white, middle and upper-middle class patients. In addition, the study sample did not include women who do not read English; therefore, the findings cannot be generalized to patients whose primary language is not English. Finally, analgesic practices varied among anesthesiologists and surgeons and may have influenced the experience of pain.

Conclusions

There are many elements of postoperative nursing care that affect the full recovery of ambulatory patients; however, if only one change is

made in the postoperative nursing care of ambulatory surgery patients, then calling patients later in the day on POD 1 may have the biggest impact. Diminishing the recovery process by just one day would be a worthwhile goal from the perspective of patients, families, and employers. Further nursing research is required to determine whether the timing of the postoperative phone call can reduce the number of days until ambulatory surgery patients return to usual activities and routines.

Patient education for pain management at home and compliance with discharge instructions also needs to be studied as factors contributing to inadequate pain control. Recommendations for comprehensive patient education in postoperative pain management have been proposed[49] but have not been tested to evaluate their influence on pain medication administration at home.

Although many patients appear to recover from ambulatory surgery uneventfully, it may be erroneous to assume that all patients are recovering as quickly and comfortably as we may expect. Each day of recovery is significant, both statistically and clinically. Patients are literally counting the days until they can resume their usual activities and routines. Because people make plans for child care, work schedules, and vacations according to when they expect to be recovered, it is important to give these patients a more accurate and complete picture of the recovery process.

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CALENDAR OF EVENTS

January 24-25, 2004. MSPAN Annual Seminar, sponsored by the Mississippi Society of PeriAnesthesia Nurses, Isle of Capri Casino, Biloxi, MS. Speakers are Chris Pasero, MSN, RN, and Jan Odom, MS, RN, CPAN, FAAN. For more information, contact Faye Townsend at BbobandGfaye@aol.com or 601-582-3665.

March 27, 2004. Oklahoma Society of PeriAnesthesia Nurses' Annual Spring Conference, Tulsa, OK. Speakers are Susan Goodwin, MS, RN, CNS, CPAN—CPAN Review; Barbara Hannah, EdD, MSN, RN, CPAN—CAPA Review; and Betty Gibson, BSN, RN, CCRN, CPAN—Test-taking Strategies. For information, contact Susan Goodwin at adelegood@aol.com.