The Impact of Diagnosis-Specific Discharge Instructions on Patient Satisfaction
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The patient satisfaction score is an important index of quality improvement in health care organizations. The satisfaction score may reflect the quality of patient care and patients’ safety and loyalty. The purpose of this study was to examine differences in mean patient satisfaction scores before and after diagnosis-specific discharge instructions were implemented in three outpatient units (Ambulatory Surgery, Endoscopy, Main Surgery) at an urban acute care hospital. Patients (N = 1171) were contacted by a survey company the first week after surgery. Satisfaction summary reports were obtained from the hospital nursing administration. Results of this preliminary study indicate that diagnosis-specific discharge instructions have positive effects on patient satisfaction scores.

Keywords: patient satisfaction, diagnosis-specific discharge instructions, ambulatory surgery unit, quality improvement.

PATIENT SATISFACTION is a key goal of same-day surgery. For the last three decades, the majority of surgeries have been performed in same-day surgery settings in North America. Successful same-day surgery relies on good communication between patients and health care professionals. Well-prepared verbal or written discharge instructions not only contribute to good communication between patients and health care providers, they also enhance postoperative home care. The purpose of discharge instructions is to provide effective strategies to ensure patients’ safety and meet expectations of care. Henderson and Zernike found that patients who received good instructions were less likely to be readmitted to a hospital. McGrath et al found that 98% of patients indicated postoperative instruction sheets provided useful information for self-care. The use of discharge instructions was one of the factors related to patient satisfaction, health provider performance, and clinical outcomes.

Clark and colleagues demonstrated that the overall quality care in the hospital is related to the quality of discharge instructions. Preoperative standardized education should also be addressed to improve patient satisfaction scores.

Many factors can impact patients’ postoperative education. The very old patient or patients with impaired vision or hearing may require additional time and highly individualized teaching-learning strategies. Increased anxiety and postsurgery fatigue may decrease a patient’s ability to receive and process medical advice and information. In addition, family members may lack requisite knowledge to ask relevant questions during the limited time available to discuss matters with members of the health care team.

Background
Our institution is a 204-bed, Level II trauma care center in Northern California affiliated with Nationwide Medical Corporation (NMC), which has a continuous performance measurement program to monitor the quality of patient care. In the same-day surgery setting, approximately 0.5% to 1.0% of our postoperative patients are readmitted because of lack of self-care skills and knowledge. Some examples include reocclusion after an arterial-venous thrombectomy, infection after a hemorrhoidectomy, and excessive bleeding post-circumcision.

Moreover, questions frequently heard in postoperative phone calls on the day after surgery include: “Why can’t I..."
eat regular food today after my tonsillectomy surgery? Why can’t I remove the nasal packing today after my nose surgery? What is a pendulum swing exercise? I don’t remember how to do it because I was too dizzy," and "The nurse told me that I have to do the sitz bath. What is a sitz bath?" These questions raised serious concerns and reinforced the PACU nurses’ perceptions that more education was needed: Did these patients receive instructions before their discharge home? Did the nurse provide well-informed verbal and written discharge instructions to the patient? Why did these patients not understand the instructions? Were there language barriers, lack of knowledge, skills, or a lack of belief in the value of self-care involved?

Lastly, the monthly survey summary reports for the outpatient settings indicated that the mean postoperative discharge instruction satisfaction score (3.5; 1 to 5 scale) was consistently lower than the corporate patients’ mean satisfaction score (3.6; 1 to 5 scale). We considered two possible reasons for this discrepancy. First, patients may not have received detailed discharge instructions. The discharge instructions used in the department are simple preformatted instructions. The discharge form does not have enough space to write on. It provides only general information, but does not emphasize specific information that can be very important to postoperative patients. Nurses routinely used certified translators or a telephone translation service to provide instructions to non-English speaking patients. Written discharge instructions were available in English only.

The second reason may be time constraints that impact patient teaching and learning in this environment. Because the trauma center opened two years ago, the PACU has expanded functions to care for post-trauma patients to accommodate the increased numbers of trauma surgeries. PACU nursing staff also care for interventional radiology patients, overflow intensive care unit patients, overnight-stay surgical patients, and even emergency cardiac catheterization patients. Because of space constraints, same-day surgery patients are returned to and discharged directly from the preoperative staging area. Nurses cover not only a heavy regular schedule during the weekday, but also on weekends and nights. In addition, the PACU functions without unit clerks or assistants, leaving PACU nurses to field phone calls from administration, family, surgeons, and bed control. Although PACU nurses strive to provide quality discharge instructions consistently, they are affected by the heavy workload.

To improve the quality of care and patient satisfaction, the Nursing Administration Department added the Krames On-Demand (KOD) electronic diagnosis-specific discharge instruction sheets (Krames System) to the outpatient surgery education profile. Since January 1, 2008, electronic diagnosis-specific discharge instruction sheets for all outpatient surgery units’ (Ambulatory Surgery Unit, Endoscopy Unit, and Main Surgery Unit) postoperative patients have been provided. The KOD electronic diagnosis-specific instructions provide a wide range of postoperative instructions for specific surgery or self-care practices. These diagnosis-specific instruction sheets can be printed easily from the unit information system. Nurses also can type patients’ personal information such as name, appointments, medications, or other special discharge issues. The instructions are written in lay terminology and are concise and easy to understand. In addition, color graphics of related anatomy and pathophysiology are included to provide more information for patients. The reading comprehension level is at the sixth to eighth-grade level, and KOD discharge instruction sheets also are available in English, Spanish, Chinese, Vietnamese, and Russian language versions. KOD instruction sheets contain up-to-date information that meets the regulations of The Joint Commission. This study sought to evaluate the effect of this intervention on patient satisfaction scores.

**Literature Review**

Evidence-based nursing practice in the perianesthesia/perioperative setting includes identifying diagnostic strategies, therapeutic interventions, and relevant patient outcome measurements. One common method of measuring health care outcomes is conducting a survey to determine patient satisfaction. Patient satisfaction scores have been used as an index for guiding quality improvement projects in an organization. According to Spooner, it is difficult to pinpoint the significant factors that impact the overall satisfaction score. The factors related to patient satisfaction are varied.

Sociodemographics, surgery outcome, pain management, waiting time, follow-up care, and participation in decision-making, discharge planning, hospital environment, and even professional attire can impact patient satisfaction. Quintana et al reported that women, older patients, those with low education levels, and those who are married or cohabitating have higher satisfaction scores.

Poor pain management is associated with low satisfaction. Surgery outcome or minor postoperative complications such as nausea and vomiting, headache, and backache also can dramatically impact patient satisfaction. If patients are satisfied with waiting time, booking efficiency, information, and advice given, they are more likely to return to the hospital for service and comply with advice. Well-prepared discharge planning, patient education, and multiple lingual service to improve patient satisfaction are highly recommended. In addition, follow-up phone calls by experienced nurses on the day after discharge can ensure the extension of better postoperative care.
The major factor impacting satisfaction scores is unclear communication between patients and health care providers. Waisman et al. reported that almost 20% of patients failed to understand discharge instructions because of medical terminology and language barriers. Patients preferred to receive discharge instructions from an experienced nurse, and Waisman advocated using a diagnosis-specific discharge instruction sheet as well. Diagnosis-specific discharge sheets can improve patients' understanding through the use of lay language as well as through clearly and colorfully illustrated pictures. Providing both verbal and written instructions improved patients' knowledge and satisfaction compared with verbal instructions only. Moreover, an interpreter and written instructions only.20 Moreover, an interpreter and written instructions in the patient's preferred language should be provided to ensure that both patient and family fully understand the discharge instructions. Kessels stated that medical information or instructions should provide thorough, simple, specific, and explicit categorization techniques because 40% to 80% of medical information provided by the health care provider is forgotten immediately. Therefore, selecting a discharge teaching intervention tool to meet the teaching objective is a vital component of patient satisfaction.

Methods

Research Design

A retrospective evaluative design was used to examine differences in mean patient satisfaction scores between postoperative patients who received a diagnosis-specific discharge instruction sheet with patients who did not. Satisfaction data were collected by an independent firm contracted by the hospital. Researchers obtained summary data from the hospital administration for this secondary analysis. No raw data were collected and psychometric properties of the survey instrument are proprietary. Outpatient surgery patients in the three different units were asked to rate their level of satisfaction on a five-point scale (5 = very satisfied, 1 = very dissatisfied) for nine measures. The nine measures were: (1) discharge instructions, (2) discharge procedure, (3) staff communication, (4) concern shown by nursing staff, (5) helpful and courteous staff, (6) family kept informed, (7) concern and problem resolved, (8) overall nursing care, and (9) overall satisfaction.

Subjects and Sampling

Satisfaction data were collected by a contracted agency from 1,171 postoperative same-day surgery patients between 18 and 90 years old who completed the standard telephone hospital satisfaction survey post-discharge. Participants included those undergoing various surgical procedures for general surgery and gynecological, orthopedic, ophthalmologic, and urological disorders. The convenience sample included 588 patients who participated during the October–December 2007 time period (pre-project) and 583 patients who completed the telephone survey from January to March 2008 (post-project). Patients may have had more than one procedure during these time periods, such as cataract surgery and an endoscopy procedure.

Data Collection

Institutional Review Board approval was obtained from San Jose State University and permission was obtained from the Surgery Department manager and the hospital administration. Aggregate patient satisfaction survey data were obtained from the Surgery Department information system. Because an independent contractor conducts the survey, no raw data were available. Thus, data collection was limited to the mean patient satisfaction scores of same-day surgery patients and the corporation mean satisfaction scores for two time periods for the nine measures. No patient identifiers were linked to these data.

Research Procedure and Planning

A Condition of Admission consent form was signed by the patients before admission. Sixty percent of surgery patients at this hospital are identified as English-as-second-
language (ESL) speakers. Languages represented include Vietnamese, Mandarin, Spanish, and Russian. A translated consent form and a professional translation system were used for the survey by the contracted agency.

Data from the hospital survey were entered into a database information system at the agency. No one except the researcher had access to this information. With assistance from a statistical consultant and clarification from the survey contractor, it was determined that no raw data were available for analysis. Data were analyzed by descriptive statistics displayed in graph format.

Results

Graphs 1–3 (Figs 1 to 3) display the mean satisfaction scores for each of the three outpatient settings along with the corporation (NMC) mean scores for the nine nursing measures before and after implementation of diagnosis-specific discharge instructions. Participating patients (N = 1171) were from three different outpatient surgery settings: Ambulatory Surgery Unit (n = 602), Endoscopy Unit (n = 84), and the Main Surgery Unit (n = 485). The length-of-stay of patients in the PACU ranged from 10 to 120 minutes, within a median of 50 minutes.

In general, the postproject mean values for each of the same-day surgery units matched or exceeded the preproject mean satisfaction values for eight of the nine measures. Patient satisfaction scores increased after implementation of the diagnosis-specific discharge instruction. The Endoscopy Unit (Figure 1) had the highest gain in patient satisfaction mean scores post-project. Endoscopy Unit mean scores exceeded the NMC means for five of the nine measures.

Although the Main Surgery Unit (Figure 2) post-project gains are not as great as the Endoscopy Unit, they did improve on six of nine measures. Interestingly, scores on the discharge procedures and the overall satisfaction measures did not change for the Main Surgery Unit. The
Ambulatory Surgery Unit (Figure 3) mean satisfaction scores matched the NMC mean scores for all measures except “concern shown by staff.”

Discussion

The purpose of this study was to evaluate mean patient satisfaction scores before and after implementation of the diagnosis-specific discharge instructions. The results of this study indicated that diagnosis-specific discharge instructions may influence patients’ satisfaction with discharge instructions (Measure 1), discharge procedure (Measure 2), and staff communication (Measure 3). Improving the discharge procedure and instructions may have indirectly contributed to improved satisfaction ratings on related measures as well (concern shown by nursing staff, overall nursing care, overall satisfaction).

Patient satisfaction is positively related to quality nursing care, which includes providing good information to patients and family members. If nurses take time and put forth the effort to address patients’ needs and expectations, patients and family members will feel more respected and may be willing to be involved in decision-making. A simple, accurate discharge instruction sheet, available in multiple languages, may help convey the nurse’s concern and caring. These educational tools assist nurses in providing succinct information to patients and family members. In addition, nurses give these standardized diagnosis-specific discharge instructions to patients before surgery instead of the handwritten sheets that were given to patients just before discharge. This procedural change may have provided additional time for patients and family members to review the information and seek clarification as needed.

Providing educational materials in the patient’s preferred language may have contributed to increased patient satisfaction scores. In the Endoscopy Unit, almost 60% of patients are ESL speakers (primary languages represented are Vietnamese, Mandarin, Russian). The Endoscopy Unit had an increase in the overall mean patient satisfaction score and in the satisfaction with discharge instruction scores after this project. One explanation may be the addition of language preference alternatives in the instruction sheets. Providing preferred language instructions enhances communication between the patient and health care provider. Ferguson and Candib reported that race, ethnicity, and language all impact a patient’s connection to health care providers. Non-English or limited-English speakers are less likely to receive information from physicians and establish good relationships with health care providers. These factors can impact a patient’s treatment outcome, patient compliance, and patient satisfaction. Therefore, health care providers should create more effective means to improve their communication with patients. Brach and Fraser suggested that improved cultural competence techniques, such as utilizing data systems in different languages, have the power to improve patient satisfaction and disease prevention.

Limitations

The limitations of this study are data availability, hospital population, and satisfaction factors. First, raw data were not available because the telephone survey was carried out by an independent contractor. Thus, the researchers are restricted to presenting the means in a graphic format only. Demographic data were not available. The researchers do not know who comprised the sample and when the survey was conducted. Older medical patients may be over-represented in the sample because they are more available during the daytime.

Comparing the hospital survey results with its affiliated hospitals nationwide may not be appropriate. Different hospitals have significantly different characteristics and populations. Although upper management may be the
same, patient responses may be different. Therefore, comparing the satisfaction score with other groups of hospitals may not be accurate.

Finally, patient satisfaction scores can relate to many factors and are not dependent solely on one page of instruction. Patients will not be satisfied with discharge instructions alone when their pain is undertreated or their waiting times are too long. Although diagnosis-specific discharge instructions have standard content and format, the communication skills among educators vary. Good communication skills and knowledgeable nurses may impact patient satisfaction scores more than the discharge instruction sheets.

Implications for Practice

Discharge instructions can positively impact both clinical outcomes and patient satisfaction scores. Providing well-informed discharge instructions for postoperative patients is a fundamental responsibility of primary care providers, surgeons, and nursing staff in an acute outpatient surgery setting. These initial findings support the use of diagnosis-specific discharge instruction sheets by nursing staff to provide the patient and family with understandable postoperative information. This first step can be augmented by additional nursing advice or consultation after patient discharge. Both of these interventions may improve patient satisfaction scores and enhance patient care quality. The use of standardized diagnosis-specific discharge instructions may improve patient satisfaction and care in other settings. Nurse educators and managers may consider implementing this system on other units or in the outpatient (clinic) setting.

Staff development implications cannot be overlooked. The fast pace in ambulatory surgery units challenges nurses to prepare their patients both for surgery and for a rapid discharge. Assisting nurses who are new to this setting to develop the necessary skills in organization, communication, cultural sensitivity, and discharge procedures may further enhance patient satisfaction and promote quality care.

Conclusion

Identifying factors that impact the performance of health care organizations and continuously executing the problem-solving process to improve the quality of patient care is vital. Patients expect health care professionals to provide effective care through open and honest communication and a respectful attitude. Patient satisfaction is a major quality indicator for health care providers. As Newsome and Wright stated, “Care cannot be high quality unless the patient is satisfied.”

Our findings indicate that incorporating written diagnosis-specific discharge instructions into the plan of care for ambulatory surgery clients can positively impact patient satisfaction. In addition to streamlining discharge procedures and standardizing educational content, patient satisfaction scores improved for several measures. Mean patient satisfaction scores increased for discharge instructions, discharge procedure, and staff communication on two of the ambulatory care units. For this sample, diagnosis-specific discharge instructions for postoperative patients were an effective strategy to enhance patient care and improve patient satisfaction.

References


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