

# Nursing

THE UNIVERSITY OF THE WEST INDIES

FACULTY OF MEDICAL SCIENCES

U.W.I SCHOOL OF NURSING MONA

In Collaboration with

BROWN TOWN COMMUNITY COLLEGE SCHOOL OF NURSING

BACHELOR OF SCIENCE IN NURSING

YEAR 3 SEMESTER 3- 2012

COURSE TITLE: SENIOR NURSING ELECTIVE WITH STUDY SEMINAR

COURSE CODE: NURS 3039 NE39A

SUBMITTED TO: A. Bell

SUBMITTED BY: 620004024

DATE SUBMITTED: June 22, 2012.

## BACKGROUND

Selection and description of the problem

Education at discharge is a vital component of improving outcomes. Education of patients at discharge promotes self-care, reduces readmissions, and helps patients identify problems early, increasing the chances for intervention and improved outcomes.

Rationale for selection

Poor adherence to discharge teaching leads to worsening of disease and rehospitalization. According to estimates, 54% of readmissions may be preventable, and inadequate discharge planning and education or lack of patient follow-up is common factors in readmission (source). Lack of compliance with medications, failure to follow diet, and delays in seeking medical attention are among the primary reasons for the high rate of rehospitalization among patients (source).

Implication for nursing practice

## INTEGRATION OF RESEARCH TO SUPPORT THE RECOMMENDATIONS

Recommendations clearly identified

Selection of current research evidence supporting the recommendations

Logical discussion of arguments

Performance measures are criteria used by organizations to determine whether an organization is fulfilling its vision and meeting its patient-focused goals. These measures are standardized to evaluate hospitals in order to promote positive outcomes in patient care. They may reflect medical management of patients, but they may also assess aspects of patient care, that is education of patients and their families at discharge. The latest guidelines for management of heart failure recognize the importance of education and recommend that patients receive educational materials as part of the patients' complete discharge instructions (source). These materials should address recommended activity level, diet, discharge medications, follow-up appointment, weight monitoring, and what to do if signs or symptoms worsen. It is unclear whether the discharge instruction performance measure as recorded in the hospital reflects whether the patients did or did not receive each defined component of education. Patient education may be documented in the medical record even if the education was cursory and allowed little time for the patient to absorb and retain the information. Conversely, many patients and their families are not ready to learn at the time of diagnosis, regardless of how thorough the instructional session may be. As such, extensive education may be better absorbed when a patient is in a stable condition and has adapted to living with disease. Fonarow et al concluded that current performance measures related to heart failure, have little effect on patients' outcomes shortly after discharge. Hence, additional measures and/or better methods for identifying and validating performance measures related to heart failure may be needed to improve care and outcomes of patients with heart failure.

Critical pathways and in-hospital instructional tools may improve the provision and quality of discharge education. The AHA Get With the Guidelines heart failure program is a hospital-based quality improvement program whose key component is the Patient Management Tool, a Web-based interactive assessment and reporting system that tracks treatment and facilitates evidence-based medicine. This tool includes education as part of the overall discharge checklist. Although many hospitals are adapting the tools, its presence alone is not enough to guarantee evidence-based practices. Use of a team leads to quick and sustained improvements.

One-on-one sessions between a nurse or multidisciplinary team member and a patient are an important component of education at discharge. In a trial of 223 patients with heart failure, researchers compared the effects of a 1-hour, one-on-one teaching session with a trained nurse educator with the effects of the standard discharge teaching done by the staff. Patients in the education group also received a copy of the treatment guidelines for heart failure written in nonmedical, patient-friendly language. Patients receiving the educational intervention had a 35% lower risk of rehospitalization or death. The intervention patients also reported increased self-care practices.

A prospective, randomized trial<sup>51</sup> was conducted to determine the effect of a formal education and support intervention on 1-year readmission or mortality and costs of care for patients hospitalized with heart failure. Patients' understanding of the topics was assessed and reviewed to provide information about gaps in patients' knowledge for the nurse to address. In subsequent follow-up sessions (by telemonitoring), the nurse reviewed knowledge and provided support for patients to reinforce the initial educational foundation, theoretically by empowering patients and offering strategies to improve adherence. The intervention was associated with a 39% decrease in the total number of readmissions.<sup>51</sup>

Follow-up after hospitalization can reinforce the education that was delivered at discharge. In a study<sup>55</sup> of home-based care after discharge, the intervention involved a nurse visiting the patient once at home after discharge to teach the patient about heart failure and the medications. A reduction in heart failure events (38 vs 51; P=.04) and unplanned readmissions (68 vs 118; P=.03) was seen in those patients receiving the follow-up visit at home compared with the control group.

Telephone monitoring is a possible tool to reinforce education and assess patients' status. Remote titration of the dose of  $\beta$ -blocker carvedilol by advanced practice nurses was studied in patients with heart failure.<sup>58</sup> Before therapy, the nurses instructed patients about the side effects of  $\beta$ -blockers, how to take a pulse, and monitoring weight. Three times a week, patients reported their weights, vital signs, and symptoms to the nurses by phone. The advanced practice nurses counseled, educated, and reminded patients to increase the dose of carvedilol every 2 weeks until the target dose was reached. As a result of this intervention, 96% of patients reached a therapeutic dose (6.25 mg twice daily), and 71% of patients reached target doses of 25 mg twice weekly in approximately 8 weeks. No hospitalizations for heart failure occurred during this period.<sup>58</sup> Another study<sup>59</sup> included 14 randomized controlled trials (4264 patients) of remote monitoring (telemonitoring and/or structured telephone support) to determine if such monitoring improved outcomes in patients with heart failure. Remote monitoring programs reduced the rates of hospital admissions related to heart failure by 21% and the rate of all-cause mortality by 20%. New technologies such as telemonitoring can be helpful tools to improve education but should be used as an addition to a comprehensive educational discharge program.

Hospital Discharge Education for Patients With Heart Failure: What Really Works and What Is the Evidence? Sara Paul, RN, MSN, FNP

One truly comprehensive and competent care for patients hospitalized requires a strong focus on education of patients and their families and emphasizes medication adherence, sodium and fluid restrictions, and recognition of signs and symptoms that indicate progression of disease may be as important as ensuring that patients are prescribed appropriate medical therapy

Patients who are not knowledgeable about their disease and their medication are at a severe disadvantage. Patients' knowledge of the dosage, frequency, and indication of each of their medications and patients' ability to open medication bottles, read labels, and distinguish tablet/capsule colors were assessed. Overall, greater knowledge of, skills with, and adherence to medication were associated with fewer visits.

Data suggest that in practice, discharge education is not emphasized as an essential component of optimal care for patients. A large number of patients who are discharged without receiving education may represent important missed opportunities to decrease morbidity and mortality.

In addition to verbal information, a combination of educational materials may enhance a patient's ability to absorb information. Books, newsletters, videos, CDs, Web pages, and computer-based programs augment the learning process and offer further opportunities for education at patients' convenience after discharge from the hospital (source). Many patients will need repeated education through follow-up telephone calls, newsletters, educational bulletins, or support groups because of the volume of information that is given at the time of hospital discharge.

Educational tools must be a component of multidisciplinary care provided to patients. 22 The team approach to education of patients improves patients' outcomes. Despite best efforts at education, helping patients understand all of the complexities of their disease and therapy may be difficult. Many patients have low levels of knowledge of their disease and lack a clear understanding of their disease and self-care. Understanding patients' barriers to learning may enable nurses to tailor educational approaches accordingly. Simply communicating a therapeutic plan is different from successfully educating patients and their families. Patients and their families should be treated as partners in learning, not as pupils. If patients feel engaged in the discussion and their learning needs are assessed, they may feel that the information is more pertinent to their situation. Teaching sessions should not be a 1-way communication session, but should engage patients in identifying their learning needs. 25 Nurses who teach patients should receive training to ensure that the educational information taught is consistent among all staff members. If the information varies among the staff, patients and their families can become confused.

Cultural differences may impede the learning process. Dietary preferences may be somewhat different for patients of different cultures, and flexibility should be given to allow patients to maintain their cultural differences yet remain within healthy parameters. If possible, a dietitian should be involved to help patients select foods that are acceptable to the patients' palate but low in sodium.

Educational interventions should be specifically tailored for patients and their families and should target their particular barriers to learning, such as functional and cognitive limitations, misconceptions, low motivation, and low self-esteem. 25 The reasons for difficulty in following a prescribed regimen are multi-factorial, but possible barriers to self-care and optimal adherence may include a complex medication regimen that is confusing to the patient, cognitive impairment that makes it difficult for the patient to remember instructions, or the lack of motivation to follow discharge instructions. Patients are often discharged with complex medication regimens. Despite the best intentions of practitioners, patients' understanding of the reason for each medication may be low, and their ability to follow therapeutic instructions may be limited. Compliance may be increased by improving patients' understanding of the importance of the therapy and by streamlining therapy through the use of once-daily agents to reduce the complexity of pill-taking regimens. 30

Cognitive Impairment

A patient's ability to understand, remember, and apply what he or she was taught at discharge is another large barrier. Elderly patients often have comorbid conditions that can make it difficult to understand and comply with therapy. Cognitive impairment may include short- or long-term memory loss, dementia, or attention deficit. In a study of recall of recommendations and adherence to advice among patients with heart disease, Kravitz et al.<sup>32</sup> found that patients who did not recall the instructions had a much greater risk of noncompliance with medications and diet than did patients who remembered the instructions. To overcome memory issues, we must ensure that all instructions and advice verbally communicated to patients are also provided in a written format that patients can take with them to share with family members and refer to later. Family members should be included in the educational session so that they hear the information and can reinforce the instructions once the patient is at home. If the patient's friend or family member who assists in preparing the weekly medications cannot attend a teaching session or an appointment when medication changes are discussed, a note explaining the changes should be sent home with the patient. Even better, a telephone call to the person who oversees the patient's medications will prevent confusion or medication errors. If a patient with cognitive impairment does not have a family member to assist with medications, it may be helpful to contact the patient's local pharmacist, home health nurse, or physical therapist to clarify changes in medication. Any health care professional who has regular contact with a patient can help in evaluating whether the patient is taking the medications correctly.

A list of medications and when to take them should be in large print, and patients should be instructed to place that list prominently in the area where daily medications are stored. Weekly pill containers with 3 compartments per day for morning, afternoon, and night doses help patients remember if they have taken their medications earlier in the day. Refrigerator magnets with information about signs and symptoms of worsening heart failure and the telephone number that the patient should call if those symptoms occur can serve as easily accessible daily reminders. Pictures of foods to avoid, such as high-sodium foods, should be available for patients to keep near the patients' grocery shopping list. Follow-up telephone calls or home visits may help patients remember and follow important discharge instructions. Charts that specify the time of day for each medication dose, either with the use of a clock depicting the time or with doses scheduled around meals, may enhance patients' ability to take pills at the correct time of day (Figure 3U). Pictures of each pill, which can be found in many medication books or online, can help patients identify their medications and may reduce medication errors. Patients' difficulty in following recommendations for diet, exercise, and smoking cessation may be due to lack of motivation and/or self-control. An increase in knowledge is not necessarily accompanied by concomitant changes in compliance behaviors. Poor physical capacity, fatigue, and depression and anxiety are common among patients with heart failure,<sup>25</sup> and all these factors can lead to lack of motivation and low interest in learning how to perform self-care. Ni et al.<sup>24</sup> reported that although most elderly patients with heart failure confirmed the importance of restricting sodium intake and limiting fluid consumption, less than half reported always avoiding salty food, and an equally low percentage did not closely monitor daily weight or fluid intake. This type of noncompliance indicates the need for education about the importance of dietary restrictions and potential consequences of nonadherence. Effective communication between patients, their families, and the health care team may help minimize the difficulties associated with dietary restrictions.

important aspects of communication are left out of instructions like these, such as why the change is important, specific details, and examples of how to go about these lifestyle changes. 2 Methods of Discharge Instruction

The methods and delivery of patient education are varied and may be important to outcomes. Education of patients consists of 5 steps, beginning with assessment of a patient's knowledge, learning abilities, learning styles, cognitive level, and motivation. 25 Next, the patient's learning needs and barriers to learning must be determined. The third step includes discussion with the patient to plan the educational intervention and set goals. In the fourth step, the education and information is delivered to the patient and the patient's family as planned. The last step includes evaluation of the learning process. Strategies that fit with the patient's learning styles, cognitive level, and motivation by using tailored interventions offer a directed way to enhance compliance among patients. 6, 7, 23, 25 – 27, 29, 30, 34, 40 – 45 Practical ideas for improving patients' adherence are listed in Table 3. Nurses are crucial to the success of education and can increase the probability of optimal discharge instruction and better outcomes by using better education strategies. 23 Patients' educational level dictates their ability to comprehend written information, and poor visual acuity limits the benefit of written materials. One-on-One Sessions

Compared with controls, they were more likely to weigh themselves daily (66% of intervention patients vs 51% of controls,  $P=.02$ ), follow a sodium-restricted diet (32% vs 20%,  $P = .05$ ), and stop smoking (97% vs 90%,  $P = .03$ ). 50

In another study, 52 179 patients with heart failure were randomized either to usual care or to a nurse education initiative (consisting of intensive, systematic, and planned education by a study nurse about the consequences of heart failure in daily life) both in the hospital and 1 week after discharge. In addition to evidence-based education such as recognition of warning signs and symptoms of worsening heart failure, problems of individual patients such as social interaction, sexual function, and limited access to the general practitioner were discussed. During the hospital stay, the study nurse assessed each patient's needs, provided education and support to the patient (and the patient's family), gave the patient a card listing the warning signs and symptoms, and discussed discharge. Within 1 week after discharge, the study nurse telephoned the patient to assess potential problems and reinforced and continued education as warranted. One month after discharge, patients from the intervention group reported complying with 14 of the 19 self-care behaviors, vs 12 behaviors for the control group. The increase in self-care behavior from baseline to 9 months was significant in the intervention group ( $t=4.9$ ,  $P$