A quasiexperimental study was conducted to ascertain what nurses know about teaching patients and whether a planned education offering could increase the knowledge nurses have about the teaching process in patient education. A convenience sample of 44 nurses participated in a pretest/posttest and 1- to 2-month follow-up test on the teaching process. Knowledge deficit was present and learning evident. Nurse educators should instruct staff on the teaching process, giving nurses the necessary skills to deliver effective patient education.

**WHAT DO NURSES KNOW ABOUT TEACHING PATIENTS?**

**Jo A. Carpenter, MSN, RN, and Shirley K. Bell, EdD, RN**

Effective patient education is the one outstanding element influencing patients toward positive healthcare changes. Nurses are an integral link to patients' comprehension of healthcare instructions through education sessions. These sessions are conducted both formally and informally numerous times throughout the day between patient and nurse. Teaching is a major responsibility for a nurse and one that should be undertaken with dedication. Implementing the process should facilitate quality patient education during each educational encounter.

Patient education is approached best in an organized manner in which each education encounter, regardless of the length of time, is more likely to produce a quality session, thereby influencing patients to make positive changes in behavior. The teaching process is an organized approach that a nurse can use to teach patients in a comprehensive manner. There are four steps to the teaching process:

1. assessment,
2. planning,
3. implementing, and
4. evaluating (DaCunha & Tackenberg, 1987).

Evaluation is ongoing in each step (Lorig, Gonzalez, & Romer, 1996).

**KEY WORDS**

PATIENT EDUCATION
TEACHING PROCESS
TEACHING SKILLS

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However, evidence reveals that nurses may not know about or understand the teaching process. The nurses in this study were taught the teaching process and the elements specific to each step. The assessment step included:

- establishing a rapport to promote effective communication,
- readiness to learn,
- literacy level,
- learning style,
- age-specific and cultural considerations, and
- barriers to learning.

Planning involved considering the tools the educator would use to teach the patient such as:

- one-on-one teaching,
- reading materials, and
- audio, video, or hands-on learning.

Implementing was putting the teaching plan into action, which includes interactive teaching. Interactive teaching encounters were a crucial element because of the increased potential for learner retention. Lastly, evaluation was taught as an element that was ongoing in each step of the teaching process. Ongoing evaluation keeps the educator aware of the effectiveness of the teaching and learning concurrently. As a result, modifications can be made in an ongoing manner. Also important to the evaluation step was documentation of the teaching session to communicate the results of learning.

### Problem Focus

The problem focuses on ineffective patient education sessions based on the lack of knowledge and use of the teaching process by nurses in healthcare settings. Nurses teach patients countless times through out the day. More often teaching is done haphazardly and “on the run.” Patient education also is infrequently conducted and when conducted is often unorganized in its delivery (Newell, 1994). Elements specific to promote effective education sessions are not considered.

Several barriers, such as time constraints, personal commitment to patient education, nonpurposeful efforts to teach, and lack of teaching skills contribute to the problem of poor patient education delivery (Boswell, Pichert, Lorenz, & Schlundt, 1990). The teaching process can eliminate several of these barriers. Numerous random personal past communications have indicated nurses do not know the teaching process. Thus, nurses are not teaching in an organized manner and are negatively affecting patient education. The following literature review discusses articles on patient education that indicate similar deficiencies.

### Patient Education

A new system to provide better healthcare teaching was adopted by the nurses on a medical floor of a community hospital. The patient teaching system at this community hospital was not meeting the needs of the patients or nurses. Patient teaching was performed haphazardly and only according to the educational level and experience of the nurse. Investigation into various aspects involving patient education led to the revamping of the entire educational process (Newell, 1994).

A committee was formed to develop new teaching plans for the patients, and inservice classes were provided for all staff on the use of the plans. Further education of staff included a new teaching policy based on a type of teaching process that included an assessment of patient educational needs, abilities, and limitations. Reports obtained from patients and nurses demonstrated that the impact of the new patient education system was positive 2 years afterward (Newell, 1994).

Smalley (1997) noted the same lack of effective patient education. Informal chart reviews revealed poor documentation and a subsequent deficit in patient education delivery. Further investigation found that nurses had never received formal training in patient education. Nurses did not perform initial patient education needs assessment and documentation. Results of the investigation prompted a multidisciplinary team to form and investigate solutions to the problem. Diabetic education was targeted as a first-step disease process to revamp the system. Development of a new multidisciplinary patient education flow sheet enhanced the patient education system (Smalley, 1997).

The importance of patient education was again seen in a descriptive study conducted by Jairath and Kowal (1999) on patients’ expectations of postsurgical pain and anticipated responses to pain management. The study investigated a sample size of 186 patients awaiting major surgery such as abdominal hysterectomy, open-heart surgery, and bowel resection at a large metropolitan hospital. Factors influencing pain
management behaviors were documented.

Results revealed clear patient education deficits involving patients as well as healthcare professionals (HCPs), including nurses. One outstanding finding revealed patients believed nurses did not teach about pain management. The implications of the study covered patient education needs to facilitate improved pain management outcomes.

Teaching

Patient education is a major responsibility of nurses. A study determined patient teaching to be important to nurses and was viewed as routine to patient care. Lack of teaching skills prompted an investigation of HCPs’ teaching skills in a study conducted by Boswell et al. (1990). The “Effective Patient Teaching” (EPT) program was developed to improve HCPs’ teaching skills at a diabetic training center in a state university. Sixty-six HCPs participated in a 30-hr instructional course on EPT. Videotaped observation of patient education sessions investigated teaching skill improvement.

Results demonstrated teaching skills before and after participation in the EPT program. There were numerous improvements on 15 patient education skills assessed after EPT. The authors concluded, “Teaching nurses how to teach has been a neglected area in basic education and in continuing education programs” (Boswell et al., p. 238).

In an article by Gaynor and Patyk (1998), a metropolitan hospital was motivated to improve patient education following reports of health consumer dissatisfaction. In response, an advisory committee was formed to establish a 2-yr plan to improve patient education across the continuum. In the first year, problem areas in various departments were identified and resolutions implemented. The second year focused on quality assurance outcome measures.

Results included increased communication between various key departments directly and indirectly related to patient education. Competencies for nurses in patient education were developed and callbacks to patients 48 hrs after discharge revealed improved patient education satisfaction. The Committee continues to assess ongoing patient education issues.

The literature review supports and reveals the importance of effective patient education. One component of effectiveness is the nurse’s ability to deliver patient education in an organized, comprehensive manner. The teaching process can deliver patient education in this manner and will “…increase the likelihood that individuals will learn” (Boyd, Graham, Gleit, & Whitman, 1998, p. 183). The teaching process is delivered in a series of steps, each of which involves tasks to promote the success of the process (Boyd et al.).

Sample

A convenience sample was obtained from participants in the regular nursing employee orientation. Personnel from departments that require a type of patient education participated in the nursing orientation patient education section. Several disciplines were represented—all levels of nursing; medical assistants; physical, respiratory, and occupational therapists; psychiatric technicians; and radiology technicians. However, study was focused on registered nurses (RNs). Written consent was obtained from participants after a detailed explanation of the study and assurance that the information provided would be confidential. At the conclusion of the education session, results were hand carried by participants and placed in a sealed box. A total of 44 RNs participated in the session.

Instrumentation

The instrument was a pretest, posttest, and 1- to 2-month follow-up posttest. All tests were identical and were designed to evaluate knowledge. There were 10 multiple-choice questions each containing three possible answers. The questions addressed key elements of the

Methodology

Design

The design was quasiexperimental, incorporating a pretest, posttest, and a 1- to 2-month follow-up posttest study. The pre- and posttests were designed to demonstrate the knowledge level nurses possessed about the teaching process and its application to case study situations along with elements of content and retention issues. A teaching intervention occurred after the pretest on patient education and the teaching process. Case study scenarios were incorporated into an interactive lecture forum.
teaching process and its application. Elements included the four steps of the teaching process, components of each step, and case study questions regarding the application of the teaching process. The participants completed the test in approximately 5 minutes. Matching numbers on the tests to the registration form facilitated confidentiality and matching the second mailed posttest to each participant.

Data Analysis

Descriptive statistics were used to summarize demographic data for the RN participants. A $t$ test was used to compare pretest/posttest and follow-up posttest scores for the sample ($n = 44$). Analysis also included the mean and standard deviation (see Table 1). Reliability analysis included Cronbach’s alpha measuring internal consistency of the test instrument; results indicated a 0.4724 alpha and 0.4679 standardized item alpha. The questions tested different concepts of the teaching process and did not reflect consistency of one concept, thus the low alpha scores. RNs were representative of associate-, baccalaureate-, and master’s-prepared levels of education (see Table 2). These RNs also represented a variety of job areas in the healthcare system.

Face validity of the tests was demonstrated through a patient education specialist who reviewed the test questions. Content validity was supported through the literature review. Permission to conduct the study was granted from the appropriate review bodies.

Results

Prior Knowledge

The 95% confidence interval for the mean prior knowledge (pretest score) spanned from 7.3 to 8.0 points (see Table 1). Thus, the mean prior knowledge was statistically significantly >7.3 points and statistically significantly <8.0 points. Therefore, the knowledge level was moderately high prior to the education intervention.

Learning

The 44 RNs’ test scores improved 0.4 points from a baseline mean of 7.7 points to a posttest mean of 8.3 points. This improvement was statistically significant. Learning was evident.

Retention

Long-term follow-up scores were obtained from a subsample of 10 nurses. The mean posttest score for the 10 nurses was 8.3 points, and the long-term follow-up mean was 7.4 points. Thus, the 10 nurses lost 0.9 points on average (an 11% reduction from the posttest mean). The reduction was statistically significant ($P = 0.05$).

Results indicated learning occurred between the pretest and the posttest. The intervention of teaching was effective. Teaching methods included interactive lecture, lecture, and case study discussion performed in small groups. The discussion groups subsequently shared their findings with the entire class of participants. Group discussion of the case studies was frequently intensely interactive. Participants often shared similar experiences. Learning was interactive among students as well as the teacher and students. Thus, students learned from each other and the teacher learned from the students. The methods were indicative of adult learning principles. The sample size for the posttest follow-up to assess retention was small ($n = 10$) and, therefore, lacks reliability.
Discussion

There are several limitations to this study. In future studies, a larger sample size would be desirable to possibly increase the reliability of the tool.

Motivation or perceived significance of the participant to learn the teaching process may have been another limitation to learning and retention.

The amount of time to educate the participants on the teaching process is another possible limitation. The education intervention was 1.5 hrs in duration. Complete education of the teaching process could cover more topics specific to each of the four steps, requiring up to a full day to a series of educational sessions.

Each participant group (N = 6) also exhibited an individual type of personality. One group may have been eager to learn, while another may have been hiding time until the conclusion of the education session.

The time the session was taught may have contributed to learning. Several sessions occurred in the early morning hours when learners are usually more alert; other sessions occurred immediately after lunch, which in many cases can cause less concentration on learning.

An additional tool (e.g., a Likert scale self-evaluation of learning based on objectives) could be used to make data evaluation subjective. Subjective answers demonstrate learner evaluation of positive or negative teaching sessions. If teaching sessions are positive, learning and retention will likely occur. Some learners also become stressed when taking a “test.”

All of these factors may have contributed to learning and retention of the elements of the teaching process in this study.

The study demonstrated to a degree what was suspected about nursing knowledge. Nurses in the study exhibit a lack of knowledge about the teaching process. Based on the results that learning did occur, the assumption is made that knowledge deficit was evident for the nurses as well as the entire participant group regarding the teaching process. Subsequent studies may benefit by the inclusion of physicians. Physicians engage in countless education sessions and the results could prove similar. Patient education delivery by all those who educate the patient will be negatively affected without proper education of the teaching process and patient education.

Conclusion

Patients require education from nurses to help make decisions about healthcare choices. Nurses, and others who educate patients, need to learn how to teach patients in order to help them make intelligent decisions. Learning requires verbal and nonverbal interaction between teacher and learner. The teaching process, when used to its fullest, is a framework, quickly referenced in practice to teach patients and includes vital elements of learning.

The nurses in this study demonstrated retained knowledge of the teaching process despite the small posttest sample size. Nurses can be equipped with the necessary elements to promote optimal patient teaching/learning. In turn, patients can be positively influenced, creating a greater possibility of making good healthcare behavior choices. These choices will provide a better quality of life for clients.

References


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