

Patient Education and the Nursing Process: Meeting the Patient's Needs

Rebecca Wingard, MSN, RN, CNN



Patients who begin dialysis are immediately subjected to a host of medicines, procedures, and dietary and lifestyle modifications. Exposure to this vast array of new experiences requires an expanded knowledge base that provides the information and skills patients will need to internalize behavioral changes that are required to successfully adapt to this new environment. Patient education is the process of providing learning opportunities for patients and their families to increase knowledge of the disease, improve skills in assisting with treatment-related tasks, and aid in the development of coping mechanisms. The goal of modern patient education programs is to achieve long-lasting changes in behavior by providing patients with appropriate knowledge to allow them to make autonomous decisions that will improve their own outcomes (Table 1). Ultimately, education should empower patients to positively affect the prevention, promotion, maintenance, or modification of illness (Redman, 2004; Wick & Robbins, 1998).

Data indicate that providing patients with a solid knowledge base has a significant impact on outcomes. A study of 372 randomly-selected patients on dialysis conducted by the Life Options Council, for example, found that higher levels of knowledge and a greater degree of self-management were associated with significant improvements in functioning and well being. Similarly, analysis of data from a subgroup of patients on dialysis for at least 15 years found that “getting

Rebecca Wingard, MSN, RN, CNN, is a Vice President in the Medical Office at the Renal Care Group in Nashville, TN, and a member of the Music City chapter of ANNA.

Note: This article is supported by a financial grant from Amgen. The manuscript has undergone peer review. The information does not necessarily reflect the opinions of ANNA or the sponsor.

The ultimate goal of patient educational programs is to achieve long-lasting changes in behavior by providing patients with the knowledge to allow them to make autonomous decisions to take ownership of their care as much as possible and improve their own outcomes. Patient education is an integral part of the nursing process, and nephrology nurses can use this process to assess, plan, implement, and evaluate an effective and individualized patient education program.

answers to questions” and “active information seeking” were two of the key components for living a long life on dialysis (Schatell & Sacksteder, 2002).

The importance of education and teaching as vital components of the nursing process has been recognized since the early days of the profession (Kovner & Jones, 2002). However, the central role of nurses in providing patient education is especially accentuated in the dialysis setting where the patients spend large amounts of time getting treatments, with many opportunities for planned as well as spontaneous teaching (Wick & Robbins, 1998). This article provides a review of key components of the patient education process, using anemia-related examples to highlight key principles.

Assessing Patient Educational Needs

The nursing process provides a method for individualizing patient care and education for each patient and event. The first step in this process is a nursing assessment: the process of collecting data to identify the needs and problems of an individual patient and family. In the assessment process, the nurse collects information from various sources, validates this information, sorts and categorizes data, and summarizes or interprets it. The end product—a nursing diagnosis of educational need—is a judgment based on sound data and information (Rankin & Stallings, 2001).

Many healthcare professionals have the misconception that assessment is a prolonged, time-intensive process. However, in many cases nurses perform assessments instinctively on a day-to-day basis. Consider this scenario: You are caring for a patient who pre-

Table 1
General Goals of Patient Education

- Adapt behaviors that maintain health and prevent illness
- Follow treatment programs once illness occurs
- Return to the previous level of health or the maximum level possible
- Minimize complications from illness or disease
- Improve quality of life
- Carry out the basic tasks of living
- Make informed decisions
- Support patient-directed autonomous decision making

Adapted from Redman, 2004 and Wick & Robbins, 1998.

sents for her first hemodialysis session of the week. The patient is pale. You know she has been receiving Epoetin alfa and intravenous iron, and that her hemoglobin (Hb) has been averaging about 11.6 g/dL. You also remember from the patient’s chart that she has a history of gastrointestinal bleeding. You talk with the patient, and ask her how she is feeling. She reports that she has not been feeling particularly well the past few days, and did not have the energy to go out to dinner with her friends last night. An additional probing question reveals that the patient’s stools have been tar-colored for the past several days. An assessment of laboratory values reveals that her Hb has fallen to 10.5 g/dL.

In this brief scenario, the nurse has applied the principles of assessment by integrating physical symptoms, a brief interview with the patient, and knowledge of the patient’s history and laboratory data to detect a clinical challenge.

In addition, several potential knowledge deficits were uncovered, including how bleeding can affect Hb levels and quality of life, the need to ensure that the patient recognizes the implications of a change in stool color in the future, and the need to immediately notify the health care team when such a change occurs.

A formal assessment of educational needs typically includes analysis of data from a variety of sources, including the patient's history, the medical chart, and the family. Once educational opportunities have been identified, it is important to prioritize the most vital learning needs that are required to modify behavior and improve outcomes. Theories on adult education consistently state that adults will devote energy to learn something in proportion to how they perceive it will help them perform tasks or deal with problems that they are currently confronting. As a result, it is vital that any educational topic that is identified is conceptualized in a framework that highlights the patient's needs rather than the interests of the health-care team (Rankin & Stallings, 2001; Redman, 2004; Wick & Robbins, 1998). For example, if the needs assessment finds that the patient does not understand the ramifications of anemia, a nurse who is interested in physiology may want to provide an overview of red blood cell physiology—a topic that many patients may find uninteresting or not particularly applicable to their personal situation. In contrast, a nurse who knows that a patient is very interested in improving his/her quality of life will be more likely to motivate patient interest if the educational session focuses on how to improve quality of life by avoiding anemia.

Planning a Patient Educational Session

Successful patient education is dependent on a well-designed plan that includes a clear statement of the goals and objectives of the educational process. Goals are the desired outcomes of learning, while objectives detail the behaviors that will be performed to achieve the goal (Rankin & Duffy,

1996; Redman, 2004). An example of a goal would be to ensure that activities of daily living are not limited by low Hb levels, i.e., a Hb below the range of 11 to 12 g/dL recommended by the National Kidney Foundation's Kidney Disease Outcomes Quality Initiative (NKF, 2001). Objectives to achieve this goal might be that the patient: (a) knows the target Hb range, (b) can outline three quality of life improvements that have been associated with maintaining Hb in the target range, (c) understands the medications that are used to help control anemia, and (d) knows the signs and symptoms of common conditions that can aggravate anemia, and when to report these conditions to the health care team. Objectives should be specific, achievable, and measurable. They should begin at a level where the patient can succeed and advance to more complex objectives as the patient becomes more knowledgeable.

Setting goals and objectives ensures that learning interventions will be tailored to the patient's individual needs. Conversely, when goals and objectives are not stated, the impact of teaching will not be optimized. A common unintended result of the latter approach is that the patient and family are provided with information, but they fail to understand how to use the information in their own environment and circumstances (Rankin & Stallings, 2001).

The plan should also account for individual patient characteristics that may affect the learning process, such as age, gender, race/ethnicity, culture, religious orientation, socioeconomic status, vision or hearing problems, and lan-

guage/dialect (Giger & Davidhizar, 2004). The reading level of individual patients is also an important consideration, especially if written materials are being distributed. On the basis of literacy skills, it is estimated that about 30 million Americans may not be able to comprehend the materials that are provided by healthcare professionals. In a 1996 analysis, for example, 18% of adults were at or below a 5th grade reading level, 32% at a 5th to 10th grade reading level, and 50% above a 10th grade reading level (Doak, Doak, & Root, 1995). It is important to note that factors such as the number of years of school completed, IQ, verbal skills, and profession/income level do not necessarily correlate with reading level. Conversely, a significant percentage of patients have high literacy skills. It is therefore desirable to develop a plan that accounts for the individual characteristics of each patient. Patients will often be reluctant to admit that they have reading problems. A quick and easy general assessment of the reading level can be done in a few minutes using the Rapid Assessment of Adult Literacy in Medicine (REALM) (Murphy & Davis, 1997). Ideally this test should be completed in private to avoid potential embarrassment for the patient.

There are potential obstacles to patient education that should also be acknowledged and accounted for in the plan. Potential staff-related barriers, for example, include personnel scheduling/experience, limited nursing staffing, and educational resources that may be inappropriate for or incomprehensible

Table 2
Patient Education Assessment:
Considerations and Information Sources

Factors to Consider	Sources of Information
Culture	Patient interview
Race/ethnicity	Patient history
Religious orientation	Family/caregiver interview
Socioeconomic status	Medical chart
Age	REALM test
Gender	Learning style assessment tool
Educational background	KDQOL
Literacy level	Beck Depression Scale
Emotional state	

to some patients. Potential patient-related considerations include differences in learning styles, anxiety, physical-discomfort, financial concerns, or an inability to understand the information being presented. The patient's emotional state should also be assessed as an indicator of the patient's readiness to learn. For example, the patient may be in a state of denial or depression, presenting a barrier to learning. It is important for nurses to be flexible and willing to adapt to individual patient characteristics and situations (Redman, 2004; Wick & Robbins, 1998).

Implementing the Plan

In view of the importance of patient education and the many factors that may hinder the teaching-learning process, it is important for nurses to use the most effective teaching strategies possible. The keys to successful patient-focused education are to keep it simple and make it understandable, while at the same time drawing the learner into the process. The intended outcome of education is to empower patients to advocate for themselves by becoming active participants. If education is successful, the patient will be able to use the new knowledge and skills to help maximize comfort and quality of life (Wick & Robbins, 1998). A few simple guidelines can help nurses succeed in this endeavor.

Choose an Appropriate Teaching Method

Education can be delivered in many ways: Choose the method that is appropriate for the content and for the learning style of the patient and family (Table 3). Whenever possible, use a variety of media that will appeal to the patient's learning style (e.g., lecture, still pictures, motion pictures, television, audio recordings, text) (Wick & Robbins, 1998).

Set Realistic Objectives

Limit educational objectives to no more than four of the most important items. If additional objectives are necessary, schedule separate sessions. Objectives should be clear, concise, and

Table 3
Teaching methods

Method	Sample Topic Areas
Individual instruction	Ideal for continued assessment and technical skill training.
Group instruction	Encourages peer-influenced learning. Small groups of 2 to 5 people offer some of the advantages of individual learning. Medium and larger sized groups are usually unacceptable for skill training but can be appropriate for lectures and videos.
Self-directed and self-study programs	Useful to teach cognitive and psychomotor objectives.

meaningful to the individual (Redman, 2004).

Eliminate Medical Jargon Whenever Possible

Medical jargon is routinely used by medical professionals, and it is sometimes easy to forget that words and phrases we hear everyday can be baffling to patients (Redman, 2004). When speaking about medications (i.e., Epoetin alfa), medical professionals typically speak about indication, dosage, side effects, and prognosis following therapy (Wick & Robbins, 1998). A more patient-focused method of addressing these issues is to discuss specific issues that are important to patients, for example: "What medication am I taking for anemia?" "How much of the medication will I receive?" "What problems can it cause?" "How will this medication help me?" "Why is it important that I not miss a dose?"

Limit Education to Short Teaching Sessions

Short educational sessions (15 minutes or less) are preferred, and should include breaks, repetition of important information, and ongoing assessments of knowledge as determined by questions and patient demonstration (Giger & Davidhizar, 2004; Redman, 2004).

To Change Health Behaviors, Focus on Behaviors and Skills

Nurses should focus on action items for the patient and changing behavior that will lead to positive outcomes for patients. Patients may not need to know all the facts and principles that apply to

the behavior; positive outcomes may be sufficient to cause behavioral changes (Rankin & Stallings, 2001; Redman, 2004). For example, for patients who typically miss dialysis sessions and experience a consequential decline in quality of life, the realization that they will feel better if they attend every dialysis session and receive appropriate medications may be sufficient to make the patient want to modify their behavior—regardless of whether they fully understand the drug's mechanism of action. Similarly, a well-designed educational program can help to empower patients by involving them in the process of improving their own outcomes. For example, knowledge can be imparted so that patients recognize and report conditions that they may notice before the healthcare team that could potentially aggravate anemia and necessitate a modification in the Epoetin alfa prescription. (Examples include fatigue, impotence, and lowered exercise tolerance.)

Present Context First

The context is what the patient already knows; everyone learns better with a foundation for new knowledge. It is important to move from basic to more complex information to give the patient a positive sense of understanding and accomplishment (Rankin & Stallings, 2001; Redman, 2004). For example, patients who do not understand anything about anemia or red blood cells may be lost if they are immediately confronted by information that expounds on the quality of life effects associated with differing Hb lev-

els. Instead, consider putting anemia into a context that the patient is familiar with—for example, start with a discussion of the importance of having energy to perform daily tasks and how the body needs oxygen to supply that energy before talking about topics that the patient may find unfamiliar.

Partition Complex Information

Divide instructions into small, logical pieces. Health-related information can be overwhelming, and patients often are bombarded with information at a time when their ability to comprehend and retain it is impaired. As a result, a number of short educational sessions can often be much more effective than one lengthy session (Rankin & Stallings, 2001; Redman, 2004).

Make Learning Interactive

Interactive learning greatly increases interest and recall. Clinical studies have shown that interaction causes a protein change in the brain that stimulates information retention and long-term memory. Encouraging interaction will assist in drawing the learner into the learning experience. Also, whenever possible, consider including a family member and/or caregiver in the educational session (Rankin & Stallings, 2001; Redman, 2004).

Capitalize on Educational Opportunities When Patients Are Ready to Learn

Patient's readiness to learn can be affected by how sick they feel or their ability to accept information at a given time. A patient who is just starting dialysis, for example, may have a limited ability to absorb information about why it is important to adhere to a host of treatments, therapies, and life style alterations. Similarly, the patient's emotional or physical state may also interfere with the educational process. Anxiety, physical discomfort, financial concerns, or an inability to understand the information being presented may make the learning experience unpleasant and ineffective (Rankin & Stallings, 2001; Redman, 2004; Wick & Robbins, 1998). In contrast, a patient who just experienced a

decrease in quality of life because Hb level fell below 11 g/dL may be very receptive to information on what can be done to help improve Hb outcomes.

These guidelines offer a framework for the design of health instruction in any medium and for any audience. This will help the learner understand what the nurse is teaching and accept the information being presented as useful and meaningful.

Evaluating and Continuing the Educational Process

Nurses should continually assess whether behavioral objectives are being achieved. The evaluation process should include: (a) measurement of the extent to which the patient has met the learning objectives, (b) indication of any need to clarify, correct, or review information, (c) notation of objectives that are not clear, (d) documentation of shortcomings in the process, (specifically in content, format, activities, and media), and (e) identification of barriers that have prevented learning from occurring (Rankin & Stallings, 2001; Redman, 2004; Wick & Robbins, 1998).

If the evaluation reveals that a desired behavioral change has occurred, then the behavior should be reinforced with ongoing educational reminders. When providing reinforcement, remember that educational interludes need not be formally scheduled to be effective. For example, praise for patients who continually achieve a Hb of 11 to 12 g/dL—especially when they are working with the nephrology team by pointing out a change in their condition that could affect anemia—helps foster a trusting relationship between the nurse and patient, keeps important information uppermost in the patient's mind, and encourages patient empowerment. Conversely, if objectives have not been met, it may be necessary to return to the assessment phase, reassess learning needs, and establish a new teaching plan (possibly with an alternative implementation approach). It is also important to document teaching and the patient response to the medical

record so that other staff members can follow through on teaching topics.

Conclusion

Education provides patients with chronic kidney disease with a knowledge base that empowers active participation in decisions about their own care and outcomes. To achieve desired outcomes, educational goals must be geared to the needs of the patient, with an educational plan that accounts for the learning style of the patient and potential barriers to the educational process. By continually educating patients about topics that are important to them, nurses can help patients improve outcomes, build positive attitudes regarding their treatment, and be more independent.

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1. If you applied what you have learned from this activity into your practice, what would be different in your practice?

GOAL

Relate the nursing process to the development of a comprehensive patient education activity, and understand the importance of nurses in this process.

Evaluation

2. By completing this offering, I was able to meet the stated objectives
- Relate each component of the nursing process to the development of a comprehensive patient education activity.
 - Summarize the impact of patient education on patient outcomes.
 - Analyze the importance of nurses on patient education and patient outcomes.
3. The content was current and relevant.
4. This was an effective method to learn this content.
5. I am more confident of my abilities since completing this material
6. The material was (check one) ___ new, ___ review for me
7. Time required to complete reading assignment: _____ minutes

Strongly
disagree

Strongly
agree

1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5

I verify that I have completed this activity _____

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