CHAPTER 1
Critical Thinking and the Nursing Process
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KEY TERMS

-Assessment (ah-SESS-ment)
- Clinical judgment (KLIN-ih-kull JUDJ-ment)
- Collaborative (koh-LAB-rah-tiv)
- Critical thinking (KRIT-ih-kull THING-king)
- Data (DAY-tuh)
- Evaluation (e-VAL-yoo-AY-shun)
- Evidence-based practice (EV-ah-dens baste)
- Intervention (in-ter-VEN-shun)
- Nursing diagnosis (NER-sing DY-ag-NOH-sis)
- Nursing process (NER-sing PRAH-sess)
- Objective data (ob-JEK-tiv DAY-tuh)
- Subjective data (sub-JEK-tiv DAY-tuh)
- Vigilance (VIJ-eh-lents)

LEARNING OUTCOMES

1. Explain why good critical thinking is important in nursing.
2. Describe attitudes and skills that promote good critical thinking.
3. Describe the thinking that occurs in each step of the nursing process.
4. Identify the role of a licensed practical nurse/licensed vocational nurse in using the nursing process.
5. Differentiate between objective and subjective data.
6. Document objective and subjective data.
7. Prioritize patient care activities based on the Maslow hierarchy of human needs.

CHAPTER CONCEPTS

Evidence-Based Practice
Patient-Centered Care
Safety

Excellence in the delivery of nursing care requires good thinking. Each day nurses make many decisions that affect the care of their patients. For those decisions to be effective, the thinking behind them must be sound.

CRITICAL THINKING

Nursing students must learn to think critically—in other words, to think like a nurse. This means they must use their knowledge and skills to make the best decisions possible in patient care situations. Halpern (2013) says that “critical thinking is the use of those cognitive [knowledge] skills or strategies that increase the probability of a desirable outcome” (p. 4). Good thinking in nursing care has also been called clinical reasoning or clinical judgment. Clinical judgment can be defined as “the outcome of critical thinking and decision making” (Dickison & Tillman, 2017). Good clinical judgment requires critical thinking attitudes and skills, which are described in this section. It also requires a good knowledge base, so that your thinking and decisions are based on correct, factual information. You will practice critical thinking skills and clinical judgment in clinical situations or simulations with your instructors. Our goal in this text is to provide you with evidence-based, solid medical-surgical knowledge on which to base good decisions.

Critical Thinking Traits

It is important for nurses to possess an attitude that promotes good thinking. The Foundation for Critical Thinking (2015) identifies eight traits associated with good critical thinking: (1) intellectual humility, (2) intellectual courage, (3) intellectual empathy, (4) intellectual autonomy, (5) intellectual
Intellectual Integrity, (6) intellectual perseverance, (7) faith in reason, and (8) fair-mindedness.

**Intellectual Humility**
Have you ever known people who think they know it all? They do not have intellectual humility. People with intellectual humility have the ability to say, "I'm not sure about that... I need more information." Certainly, we want our patients to think we are smart and know what we are doing. However, patients also respect nurses who can say, "I don't know, but I'll find out." It is unsafe to care for patients when you are unsure of what you need to do.

**Intellectual Courage**
Intellectual courage allows you to look at other points of view even when you may not agree with them at first. Maybe you really believe that 8-hour shifts are best for nurses, and you have a lot of good reasons for your belief. But if you have intellectual courage, you will be willing to really listen to the arguments for 12-hour shifts. Maybe you will even become convinced. Sometimes you must have the courage to say, "Okay, I see you were right after all."

**Intellectual Empathy**
Consider the patient who snaps as you enter her room, "I've been waiting all morning for my bath. If you don't help me with it right now, I'm going to call your supervisor." The first response that comes into your head is, "I have five other patients. You're lucky I am here!" If you have intellectual empathy, however, you will be able to think, "If I were this patient, who is in chronic pain and is tired of being in the hospital, how would I feel?" Such thinking might change how you respond.

**Intellectual Autonomy**
Did your mom ever say, "Just because everyone is doing it doesn't make it okay!"? You may see some nurses cutting corners or doing things that you don't think are safe. If you have intellectual autonomy, you will think about what you observe and determine for yourself whether it is safe.

**Intellectual Integrity**
One of your patients asks a hundred questions when you bring her a medication that has been newly prescribed to lower her high blood pressure. Later, you notice she is taking an herbal remedy from her purse. It is good that she asks a lot of questions about her drug, which has been tested extensively by the Food and Drug Administration. In the United States, however, herbal remedies are not held to the same standards as are medications. Someone with intellectual integrity would want the same level of proof applied to both medications and herbal remedies to determine whether they are safe and effective before using them.

**Intellectual Perseverance**
Perseverance means you do not give up. Consider this scenario: You have concerns about some side effects that you noticed after giving a new drug to a patient. You mention it to the health care provider (HCP), who says not to worry about it. However, you are still concerned. If you have intellectual perseverance, you might do some research and then go to your supervisor or the pharmacist to further discuss your concerns.

**Faith in Reason**
If you have faith in reason, you believe in your heart that good clinical reasoning (i.e., critical thinking in clinical situations) will result in the best clinical judgments and, therefore, the best outcomes for your patients. And if you really believe, you will be more likely to attend a seminar or read an article on developing your clinical judgment skills.

**Fair-Mindedness**
A coworker wants to change the medication administration schedule on your unit. She says it will be better for the patients. However, you think it might be because it is a better fit for her coffee-break schedule. If you are fair-minded, you will be sure that your thinking is not biased by something that you just want for yourself, as seems to be happening with your coworker. You should examine your own motives as well as those of others when you are making decisions.

So, what does all this mean to you as a nursing student? The term metacognition means to "think about thinking." It is important for you to try to develop the attitudes of a critical thinker and learn to think clearly and critically about patient care. To do that, you need to constantly reflect on how you are thinking. Are you practicing intellectual humility? Are you trying to be courageous and empathetic? These attitudes create an excellent base on which to build nursing knowledge and develop further thinking skills.

**LEARNING TIP**
Each time you exit a patient's room, do a mini-critical thinking assessment. Ask yourself, "Did I ask the right questions? Was my thinking clear and logical? Is there anything I could have done better?" This 1-minute metacognition exercise will help you develop as a great thinker.

**Nursing Knowledge Base**
Nurses must have a solid knowledge base to safely care for patients. You would not drive a car without first learning the basics of how a car works and the rules of the road. In the same way, you must understand the human body in health and illness before you can understand how to take care of an ill patient. This is the reason you are going to school and studying this book.

Information is found in many places; some information is good, and some is not as good. For example, health information found on a web site may have been put there by a major university or other reputable source, or it may have been put there by a patient who has a particular disorder. While you may learn about a patient's experience by reading his or her web site, you certainly would not base your patient care on someone's personal story.
The best knowledge on which to base your practice comes from research. When nursing care is based on good, well-designed research studies, it is called evidence-based practice. You will read more about evidence-based practice in Chapter 2.

**Critical Thinking Skills**

**Clinical Judgment**

Clinical judgment involves solving problems effectively. Nurses solve problems every day. However, a problem can be handled in a way that may or may not help the patient. For instance, consider Mr. Frank, who is in pain and asks for pain medication. His analgesic is not due for another 40 minutes. You can choose to manage this problem in several ways. One approach is to tell Mr. Frank that it is not time for the pain medication and that he will have to wait. This may solve your problem (you can move on to the next patient), but it does not solve Mr. Frank’s problem as he is still in pain. Another approach is to use a standard problem-solving method: (1) gather data, (2) identify the problem, (3) decide what outcome is desirable, (4) plan what to do, (5) implement the interventions in your plan, and (6) evaluate the plan of care.

1. **Gather data,** or factual information, to help you think critically about Mr. Frank’s request for pain medication. As a good critical thinker, you can use intellectual empathy as well as your knowledge base about pain to decide what data you need. You decide to use a pain-rating scale on which the patient rates pain from 0 (no pain) to 10 (the greatest pain possible). Mr. Frank says that the pain is in his back and rates it at an 8 on the scale. He adds that his pain has gotten worse since he’s been confined to the hospital bed. You check his history in the chart and find that he has spinal compression fractures. Your empathetic attitude tells you that waiting for 40 minutes to relieve his pain is not acceptable. You next go to the medication record and find that he has no alternative pain medications ordered.

2. **Identify the problem.** Here you use your knowledge base about compression fractures, pain, and medication administration to draw the conclusion that Mr. Frank is in acute pain and that the current medication orders are not sufficient to provide pain relief.

3. **Decide what outcome (or goal) is desirable.** Work together with the patient to determine the best outcome. The patient is intimately involved in this situation and deserves to be consulted. You may also collaborate with the registered nurse (RN) or HCP. You talk to Mr. Frank and determine that he needs pain relief now; he cannot wait until the next scheduled dose of medication. He states that he can tolerate a pain rating of 3 or less on the scale.

4. **Plan what to do.** Formulate and consider some alternate solutions. For example, you can tell Mr. Frank that he has to wait 40 minutes; however, this will not help him reach his desired outcome of pain control. You could give the medication early, but this would not be following the HCP’s orders and may have harmful effects for Mr. Frank. You could decide to try some non-drug pain-control methods, such as relaxation, distraction, or imagery. These might be helpful, but you recall from pharmacology class that complementary methods should be used in conjunction with, not in place of, medications. Another option is to report to the RN or HCP that Mr. Frank’s pain is not controlled with the current pain-control regimen. Once you have several alternative courses of action, you can discuss options with the RN and together decide the best thing to do; in this case, you might decide to have the RN contact the HCP while you work with Mr. Frank on relaxation exercises. This would assure him that his pain is being taken seriously.

5. **Implement the interventions** in your plan. The RN enters the room and informs you and Mr. Frank that the HCP has changed the analgesic orders. You obtain and administer the first dose of the new analgesic, being sure to explain its effects and side effects to Mr. Frank. The RN also informs Mr. Frank that the HCP has ordered a consultation with the pain clinic.

6. **Evaluate the plan of care.** Did the plan work? As you recheck Mr. Frank 30 minutes later, he rates his pain level at 2 on the 10-point scale. He smiles and thanks you for your attentiveness to his needs. You think back to the desired outcome, compare it with the current data collected, and determine that your interventions were successful.

Can you see how using good thinking attitudes, a good knowledge base, and the problem-solving process led to a better outcome than simply choosing the first obvious option? You were able to achieve a desirable outcome: assisting Mr. Frank in relieving his pain. And you have earned Mr. Frank’s trust in the process. Problem-solving is how nurses make decisions on a daily basis. In nursing, we call it the nursing process.

**Other Critical Thinking Skills**

Problem-solving is just one critical thinking skill. Another way you can use critical thinking in patient care is by anticipating what might go wrong, watching carefully for signs that a problem might be occurring, and then preventing it or notifying the RN or HCP in time to intervene. Nurses save many lives each year by anticipating and preventing problems. This is called vigilance. An example would be knowing the signs and symptoms of low blood glucose (because of your excellent knowledge base) and watching for them carefully (being vigilant) in a patient taking medication for diabetes. If early symptoms occur, you can intervene before the problem becomes severe. In addition, you could teach the patient and family about low blood glucose and how to prevent it, further reducing the risk to the patient.

There are many other thinking skills that are beyond the scope of this book. You can ask yourself the questions that follow as you continue to develop your thinking skills. These are not in any order nor would they all be asked for in a given situation. They are just some ideas to get you started.

- Have I thought this through?
- What information do I need?
• How do I know?
• Is someone influencing my thinking in ways I am not aware of?
• What conclusions can I draw from the information I have?
• Am I basing this decision on assumptions that may or may not be true?
• Am I thinking creatively about this, or am I in a rut?
• What do I need to watch for in order to prevent complications?
• Is there an expert I can consult who can help me think this through?
• Is there any supporting research or evidence that confirms this is true?
• Am I too stressed or tired to think carefully about this right now?

BE SAFE!
BE VIGILANT! Always ask yourself as you prepare for patient care each day, “What is the worst thing that could happen to this patient today? What are early signs I should recognize, based on the patient’s diagnoses? What will I do if they occur?” Plan ahead to be vigilant and you can prevent many patient care disasters!

NURSING PROCESS
You have just used the nursing process to solve Mr. Frank’s problem. The nursing process is a clinical problem-solving process that links thinking with actions in nursing practice. The nursing process is used to determine patient needs by collecting data, formulating nursing diagnoses, and planning, implementing, and evaluating care. As a nursing student, you consciously apply the nursing process to each patient problem. With experience, you will internalize the nursing process and use it without much conscious effort.

Role of the Licensed Practical Nurse/Licensed Vocational Nurse
The licensed practical nurse (LPN) or licensed vocational nurse (LVN) carries out a specific role in the nursing process, as described in Table 1.1. The role of the LPN/LVN is to provide direct patient care. The LPN/LVN often spends more time at the bedside than the RN, which allows the LPN/LVN to develop a therapeutic relationship and understand the patient’s needs. The LPN/LVN and the RN collaborate to analyze data and develop, implement, and evaluate the plan of care (Fig. 1.1).

Data Collection
The first step in the nursing process is assessment. The LPN/LVN assists the RN in collecting data from a variety of sources to create a comprehensive assessment. Data are divided into two types: subjective data and objective data.

Table 1.1
Role of the Licensed Practical Nurse/Licensed Vocational Nurse in the Nursing Process

<table>
<thead>
<tr>
<th>Steps of the Process</th>
<th>Role of the Licensed Practical Nurse/Licensed Vocational Nurse</th>
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<tbody>
<tr>
<td>Data Collection</td>
<td>Assists registered nurse (RN) in collecting data for assessment</td>
</tr>
<tr>
<td>Nursing Diagnosis</td>
<td>Assists RN in choosing appropriate nursing diagnoses</td>
</tr>
<tr>
<td>Planning Care</td>
<td>Assists RN in developing patient outcomes and planning care</td>
</tr>
<tr>
<td>Implementation</td>
<td>Carries out portions of the plan of care that are within the licensed practical nurse/licensed vocational nurse scope of practice</td>
</tr>
<tr>
<td>Evaluation</td>
<td>Assists RN in evaluation and revision of the plan of care</td>
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Note: There may be slight variations by state.

Subjective Data
Information provided verbally by the patient is called subjective data. Symptoms are subjective data. Anxiety or pain would be considered subjective data because only the patient can feel them. A nurse cannot objectively observe them. Often, subjective information is placed in quotes when documented, such as “I have a headache” or “I feel out of breath.” You must listen carefully to the patient and understand that only the patient truly knows how he or she feels.

When collecting subjective data, start with the patient’s main concern. Try asking, “What happened that brought you to the hospital [clinic, office]?” or “Do you have a specific concern today?”
Once the patient has identified the main concern, further questioning can reveal more pertinent information. Use the phrase WHAT’S UP? as a handy way to remember questions to ask the patient (Box 1.1). Asking the right questions can help you obtain better data with which to make the best decisions.

Next, obtain a patient history. Do this by asking the patient and family questions about the patient’s past and present health problems, including specific questions about each body system, family health problems, and risk factors for health problems. The patient’s medical record may also be consulted for background history information.

In addition to assessment of physiological function, ask the patient about personal habits that relate to health, such as exercise, diet, and the presence of stressors, according to institutional assessment guidelines. Finally, ask about the patient’s family role, support systems, and cultural and spiritual beliefs.

**Learning Tip**
Practice assessing a symptom on a classmate. Ask the WHAT’S UP? questions.

**Objective Data**

**Objective data** are pieces of factual information obtained through physical assessment and diagnostic tests that are observable or knowable through the five senses. For example, a rash can be observed with the eyes and palpated with the fingers (with gloves on, of course). Objective data are sometimes called **signs**. Examples of objective data include the following:

- 3-cm red lesion
- Respiratory rate 36 per minute
- Blood glucose 326 mg/dL
- Patient is moaning

These are all observable or measurable by a nurse and do not need an explanation by the patient.

**Box 1.1**

**WHAT’S UP? Guide to Symptom Assessment**

W—Where is it?
H—How does it feel? Describe the quality (e.g., is it dull, sharp, stabbing?).
A—Aggravating and alleviating factors. What makes it worse? What makes it better?
T—Timing. When did it start? How long does it last?
S—Severity. How bad is it? This can often be rated on a scale of 0 to 10.
U—Useful other data. What other symptoms are present that might be related?
P—Patient’s perception of the problem. The patient often has an idea about what the problem is or the cause but may not believe that his or her thoughts are important to share unless specifically asked.

Objective data are gathered through physical assessment. Inspection, palpation, percussion, and auscultation techniques are used to collect objective data (Fig. 1.2). You can find more on these techniques, as well as how to obtain a complete history, in a nursing assessment text. Pay special attention to problem areas identified by the patient.

**Documentation of Data**

Document all data in the patient’s medical record. If you identify any significant problem, change in the patient’s status, or variation from normal, first report it immediately to an RN or HCP and then document it. Recorded data should be accurate and concise.

When documenting subjective data, use what was stated by the patient or significant other. Use direct quotations whenever possible, such as, “I feel sad.” Quotes accurately represent the patient’s view and are least open to mistaken interpretation.

When documenting objective data, include exactly what you observed. Avoid interpreting the data and using words that have vague meanings. For example, “nailbed color is pink” gives clearer information than does “nailbed color is normal.” “Normal” is an interpretation of data rather than true data. “Capillary refill is 2 seconds” is more precise than “capillary refill is good.” The statement “the wound looks better” is not meaningful unless the reader has previously observed the wound. Stating that “the wound is 1 by 2 inches, red, with no drainage or odor” provides data with which to compare the future status of the wound and determine whether it is responding to treatment.

**Learning Tip**

Beginners may be tempted to use elaborate phrases or words to document, when simple, direct words are best. Simply state exactly what you saw or heard to provide the clearest and most accurate information.
Nursing Diagnosis

Once data have been collected, the LPN/LVN assists the RN to compare the findings with what is considered normal. Data are then grouped, or clustered, into sets of related information that identify problems. Problems are then labeled as nursing diagnoses.

According to NANDA International (NANDA-I; formerly, the North American Nursing Diagnosis Association), a nursing diagnosis is a "clinical judgment concerning a human response to health conditions/life processes, or a vulnerability for that response, by an individual, family, group or community. A nursing diagnosis provides the basis for selection of nursing interventions to achieve outcomes for which the nurse has accountability" (NANDA International, 2017). Nursing diagnoses are standardized labels that make an identified problem understandable to all nurses.

A diagnosis is considered "medical" when the HCP directs most of the care. For example, pneumonia is a medical diagnosis and requires antibiotics, which are ordered by the HCP. A diagnosis is considered "nursing" if the interventions needed to treat the problem are mainly independent nursing functions.

One example of a NANDA-I nursing diagnosis is Acute Pain. In Mr. Frank's scenario, the nurse identified that pain was a problem, and a plan of care was developed to manage the pain. The HCP was contacted for analgesic orders, but independent nursing actions were also used, including relaxation and distraction. These independent nursing actions did not require an HCP's order.

A well-written nursing diagnosis helps guide development of a plan of care. The three parts of a diagnosis include the following:

- Problem: the nursing diagnosis label from the NANDA-I list
- Etiology: the cause or related factor (usually preceded by the words "related to")
- Signs and symptoms: the subjective or objective data that provide evidence that this is a valid diagnosis (often preceded by the words "as evidenced by")

The statement of Problem, Etiology, and Signs and symptoms is called the PES format. Consider again Mr. Frank. A diagnosis using this format might read: "Acute Pain related to muscle spasms and nerve compression as evidenced by patient's pain rating of 8 on a 10-point scale." Note how the complete diagnosis gives you more helpful information than simply the label "pain." This additional information helps determine an appropriate outcome and guides the selection of interventions.

Many patient problems benefit from a collaborative approach—that is, the nurse, HCP, and other members of the health team all work together to reach the desired outcome. For example, a patient with pneumonia (a medical diagnosis) has many needs that depend on HCP orders, such as respiratory treatments and antibiotics. The role of the LPN/LVN is to collect important data on the patient's respiratory status and to provide nursing measures such as encouraging fluid intake, coughing, and deep breathing.

CRITICAL THINKING

Nursing Diagnoses: Which of the following are NANDA-I nursing diagnoses? Which are medical diagnoses?

1. Impaired Physical Mobility
2. Ineffective Coping
3. Herniated Disk
4. Fractured Femur
5. Diabetes
6. Impaired Gas Exchange
7. Appendicitis
8. Activity Intolerance

Suggested answers are at the end of the chapter.

Planning of Care

Once nursing diagnoses have been identified, an individualized plan of care is designed to help meet the patient's needs. Planning involves setting priorities, establishing outcomes, and identifying interventions that will help the patient meet the identified outcomes. It is important to include the patient in the development of the plan of care. The plan will be most successful if the patient agrees with and understands the interventions.

Prioritize Care

Once you know what problems need to be addressed, you must decide which problem or intervention should be taken care of first. Because care should always be patient-centered, with the patient at the center of the health team, such decisions should involve the patient as well as the RN and LPN/LVN. The Maslow hierarchy of human needs can be used as a basis for determining priorities (Fig. 1.3). According to Maslow, humans must meet their most basic needs (those at the bottom of the triangle) first. They can then move up the hierarchy to meet higher-level needs.

Physiological needs are the most basic. For example, a person who is having difficulty breathing is not worried about love or self-esteem; he just wants to be able to breathe. Once physiological needs are met, the patient can concentrate on meeting safety and security needs. Love, belonging, and self-esteem needs are next; self-actualization needs are generally the last priority when planning care. Needs can occur simultaneously on different levels and must be addressed in a holistic manner, with prioritization guiding the care provided.

If several physiological needs are present, life-threatening needs are ranked first, health-threatening needs are second, and health-promoting needs, although important, are last.

LEARNING TIP

If you are stuck wondering which physiological need should take priority, ask yourself, "Which problem is most threatening to my patient's life?"
Chapter 1  Critical Thinking and the Nursing Process

SELF-ACTUALIZATION
(The individual possesses a feeling of self-fulfillment and the realization of his or her highest potential.)

SELF-ESTEEM
ESTEEM-OF-OTHERS
(The individual seeks self-respect and respect from others; works to achieve success and recognition in work; desires prestige from accomplishments.)

LOVE AND BELONGING
(Needs are for giving and receiving of affection; companionship; satisfactory interpersonal relationships; and the identification with a group.)

SAFETY AND SECURITY
(Needs at this level are for avoiding harm; maintaining comfort; order; structure; physical safety; freedom from fear; protection.)

PHYSIOLOGICAL NEEDS
(Basic fundamental needs including food, water, air, sleep, exercise, elimination, shelter, and sexual expression.)

FIGURE 1.3 The Maslow hierarchy of human needs.

LEARING TIP
If you are developing a plan of care for a patient with complex needs and are not sure where to start, go back to the assessment phase. Often, additional information can help you better understand the patient's needs and develop a plan of care individualized to the patient's specific problem areas.

CRITICAL THINKING
The Maslow Hierarchy of Human Needs: Based on the Maslow hierarchy of human needs, list the following nursing diagnoses in order from highest (1) to lowest (5) priority. Give rationales for your decisions.

- Deficient Knowledge
- Constipation
- Disabled Family Coping
- Readiness for Enhanced Self-Concept
- Ineffective Airway Clearance

Suggested answers are at the end of the chapter.

Establish Outcomes
An outcome is a statement that describes the patient's desired goal for a problem area. It should be measurable, be realistic for the patient, and have an appropriate time frame for achievement. Measurable means that the outcome is objective or can be observed. It should not be vague or open to interpretation, with the use of subjective words such as "normal" or "large." Consider, for example, two outcomes:

1. The patient's shortness of breath will improve.
2. The patient will be less short of breath within 15 minutes as evidenced by the patient rating the shortness of breath at less than 3 on a scale of 0 to 10, having a respiratory rate between 16 and 20 per minute, and appearing relaxed.

Although the first outcome seems appropriate, in reality it is difficult to know when it has been met. There is nothing to objectively indicate when the problem has been resolved. The second outcome is objective. You can see that when the patient rates his or her shortness of breath at less than 3, is breathing at a rate of 16 to 20 per minute, and appears relaxed, the desired outcome will have been met. The outcome is realistic, and the 15-minute time frame ensures that the patient's distress is minimized. If the plan of care does not achieve the desired outcome in the given time frame, it should be evaluated and revised as needed.

When determining criteria for a measurable outcome, look at the signs-and-symptoms portion of the nursing diagnosis. The resolution of signs and symptoms identified in the nursing diagnoses is evidence that nursing interventions were effective. If the desired outcome is not achieved, the
problem and interventions need reevaluation. Let’s look again at Mr. Frank’s nursing diagnosis:

- Nursing diagnosis: Acute Pain related to muscle spasms and nerve compression as evidenced by patient’s pain rating of 8 on a 10-point scale
- Outcome: Patient will state his pain level is less than 3 on a 10-point scale within 30 minutes of intervention.

**Identify Interventions**

Interventions are the actions you take to help a patient meet a desired outcome. Therefore, interventions should be goal-directed. Any intervention that does not contribute to meeting the outcome should not be part of the plan of care.

One way to create a care plan is to include interventions that can be categorized as “take, treat, and teach.” In the first intervention category, “take,” or identify, data related to the problem. Next, “treat” the problem by identifying deliberate actions to help reach the outcome. Last, identify what to “teach” the patient and family to promote self-care.

Look again at the nursing diagnosis of Acute Pain. A plan of care for this problem using the take, treat, and teach method might look like this:

**Take:**
- Assess pain level every 4 hours and as needed.

**Treat:**
- Provide pain medication as ordered.
- Provide warm compresses as ordered.
- Offer back rubs.

**Teach:**
- Teach the patient relaxation exercises.
- Teach about the benefits of distraction such as music or television.

In addition to identifying interventions, it is important to understand how and why they will work. The “why” is called a rationale. For example, you should assess pain because the patient is the only person who knows what his pain feels like. You provide warm compresses to bring blood to the tissues and promote muscle relaxation. Sound rationales that are evidence based should guide the selection of each nursing intervention. You will find rationales with interventions throughout this book to help you understand why interventions will be effective.

Like nursing diagnoses, nursing interventions can be either independent or collaborative. Independent nursing actions can be initiated by the nurse. Examples of independent nursing actions include assessment, teaching the patient relaxation exercises, and giving a back rub for comfort. Collaborative actions require an HCP’s order to perform. Examples of collaborative interventions include giving prescribed medications or applying a warm compress.

**Implementation of Interventions**

Once the plan of care has been identified, it must be communicated to the patient, family, and health team members and then implemented. One way a plan of care is communicated is by writing it as a nursing care plan. The nursing care plan is documented on the patient’s medical record to communicate to all nurses the patient’s priority problems, the desired outcomes, and the plan for meeting the outcomes. Many institutions have standardized care plans that are individualized for each patient by the nurse.

Implementation of the plan of care involves performing the interventions. The patient’s response to each intervention is noted and documented. This documentation provides the basis for evaluation and revision of the plan of care.

**Evaluation of Outcomes**

The last step of the nursing process is evaluation. The nurse continuously evaluates the patient’s progress toward the desired outcomes and the effectiveness of each intervention. So, if Mr. Frank’s pain level is still at a level of 5 on the 10-point scale 30 minutes after intervention, the plan of care should be revised. Any part of the plan of care can be revised, from the diagnosis or desired outcome to the interventions. Acute care institutions require routine review and updating of the plan of care.

**SUGGESTED ANSWERS TO CRITICAL THINKING**

**Nursing Diagnoses**
1. Impaired Physical Mobility = nursing
2. Ineffective Coping = nursing
3. Herniated Disk = medical
4. Fractured Femur = medical
5. Diabetes = medical
6. Impaired Gas Exchange = nursing
7. Appendicitis = medical
8. Activity Intolerance = nursing

**The Maslow Hierarchy of Human Needs**
1. Ineffective Airway Clearance: physiological need that can be life-threatening
2. Constipation: physiological need that can be health-threatening
3. Deficient Knowledge: safety and security need
4. Disabled Family Coping: love and belonging need
5. Readiness for Enhanced Self-Concept: self-esteem need
Review Questions

1. In which of the following ways is critical thinking useful to the nursing process?
   1. It highlights the solution to a problem.
   2. It can lead to a better outcome for the patient.
   3. It simplifies the process.
   4. It helps the nurse arrive at a solution more quickly.

2. Which nurse is exhibiting intellectual humility?
   1. The nurse who is an expert at wound care
   2. The nurse who reports an error to the supervisor
   3. The nurse who tries to empathize with the patient
   4. The nurse who asks a coworker about a new procedure

3. Which of the following pieces of information is considered objective data?
   1. The patient's respiratory rate is 28.
   2. The patient states, "I feel short of breath."
   3. The patient is short of breath.
   4. The patient is feeling panicky.

4. The nurse is collecting data on a newly admitted patient who has an ulcerated area on his left hip. It is 2 inches in diameter and 1 inch deep, with yellow exudate. Which of the following statements best documents the findings in the patient’s database?
   1. Wound on left hip, 2 inches diameter, 1 inch deep, infected
   2. Left hip wound, large, deep, with yellow drainage
   3. Pressure injury on left hip, yellow drainage
   4. Wound on left hip, 2 inches in diameter, 1 inch deep, yellow exudate

5. A 34-year-old mother of three is newly admitted to a respiratory unit because she has pneumonia. She has all the following problems. Based on the Maslow hierarchy of human needs, place the problems in order of priority.
   1. Frontal headache related to stress of hospital admission
   2. Anxiety related to concern about leaving children
   3. Shortness of breath related to newly diagnosed pneumonia
   4. Deficient knowledge related to discharge plan

6. Place the steps of the nursing process in correct chronological order of use. Use all options.
   1. Nursing diagnosis
   2. Evaluation
   3. Data collection
   4. Planning care
   5. Implementation

7. Which of the following parts of the nursing process can be carried out independently by a licensed practical nurse/licensed vocational nurse?
   1. Implementation of interventions
   2. Nursing diagnosis
   3. Analysis of data
   4. Evaluation of outcomes

8. The nurse teaches a patient the importance of stopping smoking. Which of the following patient responses provides the best evidence that the teaching was effective?
   1. I have a brother who died of lung cancer. I know smoking is bad.
   2. I tried to quit 5 years ago, and I really would like to, but it is very hard.
   3. Thank you for the information. I will call the Smoke Stoppers organization today.
   4. I know you are right. I should stop smoking.

Key Points

Find the chapter key points in your online resources available through Davis Edge.

Additional Resources

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