Nursing Process

Chapter III: Nursing Process

Lecture outlines:

- Nursing Process History
- Characteristics of Nursing Process
- Components of Nursing Process
- Nursing Assessment
- Nursing Diagnosis
- Nursing Planning and Outcome Identification
- Nursing Implementation
- Nursing Evaluation

Learning Objectives:

At the end of this chapter, the student should be able to:

- Define key terms.
- Explain the nursing process.
- Describe the components of assessment.
- Describe the three types of nursing diagnoses.
- Discuss planning and outcome identification.
- Discuss the types of skills that nurses must possess in order to perform the nursing interventions during the implementation step of the nursing process.
- Identify factors that may influence evaluation.
- Explain how critical thinking and problem solving are related to the nursing process.
- Use the nursing process to provide safe, effective client care.
The **nursing process** is the framework for providing professional, quality nursing care. It directs nursing activities for health promotion, health protection, and disease prevention and is used by nurses in every practice setting and specialty.

**Nursing Process History**

The first reference to nursing as a “process” was in a 1955 journal article by Lydia Hall, yet the term *nursing process* was not widely used until the late 1960s (Edelman & Mandle, 2002). Johnson (1959), Orlando (1961), and Wiedenbach (1963) referred to the nursing process as a series of three steps: assessment, planning, and evaluation. Yura and Walsh (1967) identified four steps in the nursing process:

1. Assessing
2. Planning
3. Implementing
4. Evaluating

The term *nursing diagnosis* was first used by Fry (1953).

After the first meeting of the group now called NANDA International in 1974, nursing diagnosis was added as a separate step in the nursing process.

Now, the steps of the nursing process are:

1. Assessment
2. Diagnosis
3. Planning and outcome identification
4. Implementation
5. Evaluation

**Characteristics of Nursing Process**
A **process** is a series of steps or acts that lead to accomplishing some goal or purpose. Processes have three characteristics:

1. Inherent purpose.
2. Internal organization.
3. Infinite creativity.

These characteristics are found in the nursing process.

**Components of Nursing Process**

The **nursing process** is a systematic method for providing care to clients. The nursing process is dynamic and requires creativity in its application. The steps are the same for each client situation, but the correlation and results will be different. The nursing process is used with clients of all ages and in any care setting. See figure (1) below:

![Figure (1) Components of Nursing Process](image-url)
Nursing Assessment

The first step in the nursing process includes systematic collection, verification, organization, interpretation, and documentation of data. The completeness and correctness of this data relate directly to the accuracy of the steps that follow.

Assessment involves the following steps:
• Data collection from a variety of sources
• Data validation
• Data organization
• Data interpretation
• Data documentation

Purpose of Assessment

The purpose of assessment is to:

1. Organize a database regarding a client’s physical, psychosocial, and emotional health so that health-promoting behaviors and actual and/or potential health problems can be identified.

2. Identifying the client’s strengths gives the nurse information about the abilities, behaviors, and skills the client can use during the treatment and recovery process.

3. Provides an opportunity to form a therapeutic interpersonal relationship with the client. During assessment, the client can discuss health care concerns and goals with the nurse.

Types of Assessment
The information needed for assessment is usually determined by the health care setting and needs of the client. Three types of assessment are comprehensive, focused, and ongoing.

1. **Comprehensive Assessment**: provides baseline client data including a complete health history and current needs assessment. It is usually completed upon admission to a health care agency.

2. **Focused Assessment**: is limited to potential health care risks, a particular need, or health care concern. Used when short stays are anticipated (e.g., outpatient surgery centers and emergency departments).

3. **Ongoing Assessment**: When problems are identified during a comprehensive or focused assessment, follow-up is required. An ongoing assessment includes systematic monitoring of specific problems.

**Collecting Data**

Data collection is the process of gathering information about a client's health status. It must be both systematic and continuous to prevent the omission of significant data and reflect a client's changing health status.

A database is all the information about a client; it includes the nursing health history, physical assessment, primary care provider's history and physical examination, results of laboratory and diagnostic tests, and material contributed by other health personnel. To collect data accurately, both the client and nurse must actively participate. Data can be of subjective or objective and constant or variable types, and from a primary or secondary source.
Components of a Nursing Health History

1. **Biographic Data:** Client's name, address, age, sex, marital status, occupation, religious preference, health care financing, and usual source of medical care.

2. **Chief Complaint or Reason for Visit:** The answer given to the question "What is troubling you?" or "Can you tell me the reason you came to the hospital or clinic today?" The chief complaint should be recorded in the client's own words.

3. **History of Present Illness:** When the symptoms started
   - Whether the onset of symptoms was sudden or gradual
   - How often the problem occurs
   - Exact location of the distress
   - Character of the complaint (e.g., intensity of pain or quality of sputum, emesis, or discharge)
   - Activity in which the client was involved when the problem occurred
   - Phenomena or symptoms associated with the chief complaint
   - Factors that aggravate or alleviate the problem

4. **Past History**
   - **Childhood illnesses,** such as chickenpox, mumps, measles, rubella (German measles), rubella (red measles), streptococcal infections, scarlet fever, rheumatic fever, and other significant illnesses
- **Childhood immunizations** and the date of the last tetanus shot
- **Allergies** to drugs, animals, insects, or other environmental agents, the type of reaction that occurs, and how the reaction is treated
- **Accidents and injuries**: how, when, and where the incident occurred, type of injury, treatment received, and any complications.
- Hospitalization for serious illnesses: reasons for the hospitalization, dates, surgery performed, course of recovery, and any complications.
- Medications: all currently used prescription and over-the-counter medications, such as aspirin, nasal spray, vitamins, or laxatives.

5. **Family History of Illness**: To ascertain risk factors for certain diseases, the ages of siblings, parents, and grandparents "and their current state of health or, if they are deceased, the cause of death are obtained. Particular attention should be given to disorders such as heart disease, cancer, diabetes, hypertension, obesity, allergies, arthritis, tuberculosis, bleeding, alcoholism, and any mental health disorders.

6. **Lifestyle**
   - **Personal habits**: the amount, frequency, and duration of substance use (tobacco, alcohol, coffee, cola, tea, and illicit or recreational drugs)
   - **Diet**: description of a typical diet on a normal day or any special diet, number of meals and snacks per day, who cooks and shops for food, ethnically distinct food patterns, and allergies
   - **Sleep/rest patterns**: usual daily sleep/wake times, difficulties sleeping, and remedies used for difficulties
   - **Activities of daily living (ADL)**
Instrumental activities of daily living: any difficulties experienced in food preparation, shopping, transportation, housekeeping, laundry, and ability to use the telephone, handle finances, and manage medications.

7. Social Data

- **Family relationships/friendships**: The client's support system in times of stress (who helps in time of need?), what effect the client’s illness has on the family, and whether any family problems are affecting the client.

- **Ethnic affiliation**: Health customs and beliefs; cultural practices that may affect health care and recovery.

- **Educational history**: Data about the client's highest level of education attained and any past difficulties with learning.

- **Occupational history**: Current employment status, the number of days missed from work because of illness, any history of accidents on the job.

- **Economic status**: Information about how the client is paying for medical care (including what kind of medical and hospitalization coverage the client has), and whether the client's illness presents financial concerns.

- **Home and neighborhood conditions**: Home safety measures and adjustments in physical facilities that may be required to help the client manage a physical disability, activity intolerance, and activities of daily living; the availability of neighborhood and community services to meet the client's needs.

8. Psychological Data
- Major stressors experienced and the client's perception of them
- Usual coping pattern with a serious problem or a high level of stress
- Communication style: ability to verbalize appropriate emotion; nonverbal communication—such as eye movements, gestures, use of touch, and posture; interactions with support persons; and the congruence of nonverbal behavior and verbal expression.

**Patterns of Health Care:** All health care resources the client is currently using and has used in the past. These include the primary care provider, specialists (e.g., ophthalmologist or gynecologist), dentist, folk practitioners (e.g., herbalist), health clinic, or health center; whether the client considers the care being provided adequate; and whether access to health care is a problem.

**Sources of Data**
Although data are collected from a variety of sources, the client is considered the **primary source** of data (the major provider of information about a client). As Sources of data other than the client are considered **secondary sources** and include family members, other health care providers, and medical records.

**Types of Data**
Two types of information are collected through assessment: subjective and objective.

- **Subjective data** (also called symptoms): are data from the client’s (sometimes family’s) point of view and include perceptions, feelings, and concerns. The primary method of collecting subjective data is the interview. The health history, a review of the client’s functional health
patterns prior to the current contact with the health care agency, provides much of the subjective data.

- **Objective data** (also called signs): are observable and measurable data that are obtained through both standard assessment techniques performed during the physical examination and the results of laboratory and diagnostic testing. Examples of both subjective and objective data.

**Validating the Data**

Objective data may add to or validate subjective data.

Validation is a critical step that prevents misunderstandings, omissions, and incorrect inferences and conclusions. This process is particularly important if data sources are considered unreliable, such as when a client is confused or unable to communicate. Findings should also be compared with norms, and grossly abnormal findings should be rechecked and confirmed.

**Organizing the Data**

Collected data must be organized so as to be useful to the health care professional collecting the data and to others involved in the client’s care. After being organized into categories, the data are clustered into groups of related pieces. **Data clustering** is the process of putting data together in order to identify areas of the client’s problems and strengths.

**Interpreting the Data**

After data is collected, the nurse can begin developing impressions or inferences about the meaning of the data. Organizing data in clusters helps the nurse recognize patterns of response or behavior.

When data are placed in clusters, the nurse can:

- Distinguish between relevant and irrelevant data.
- Determine whether and where there are gaps in the data.
- Identify patterns of cause and effect.
Documenting the Data

Assessment data must be recorded and some reported. The nurse must decide which data should be immediately reported to the head nurse and/or physician and which data can just be recorded.

Nursing Diagnosis

The second step in the nursing process involves further analysis (breaking down the whole into parts that can be examined) and synthesis (putting data together in a new way) of the collected data. A list of nursing diagnoses is the result of this process. According to NANDA-International, a nursing diagnosis is a clinical judgment about individual, family, or community responses to actual or potential health problems/life processes. A nursing diagnosis provides the basis for selection of nursing interventions to achieve outcomes for which the nurse is accountable. Clients have both medical and nursing diagnoses.

Table (1) Compares Selected Nursing and Medical Diagnoses.

<table>
<thead>
<tr>
<th>NURSING DIAGNOSIS</th>
<th>MEDICAL DIAGNOSIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decreased Cardiac Output</td>
<td>Congestive heart</td>
</tr>
<tr>
<td>Ineffective Breathing Pattern Risk for Imbalanced Fluid Volume</td>
<td>Lung cancer</td>
</tr>
<tr>
<td>Death Anxiety</td>
<td>Chronic obstructive</td>
</tr>
<tr>
<td>Ineffective Airway Clearance</td>
<td></td>
</tr>
<tr>
<td>Ineffective Breathing Pattern Anxiety</td>
<td>pulmonary disease</td>
</tr>
</tbody>
</table>

Types of Nursing Diagnoses
Analysis of the collected data leads the nurse to make a diagnosis in one of three categories:

- **An actual nursing diagnosis**: indicates that a problem exists; it is composed of the diagnostic label, related factors, and signs and symptoms.

- **A risk nursing diagnosis** (potential problem): indicates that a problem does not yet exist but that specific risk factors are present. Risk for followed by the diagnostic label and a list of the risk factors.

- **A wellness Nursing Diagnosis**: denotes the client’s statement of a desire to attain a higher level of wellness in some area of function. It begins with the phrase Readiness for Enhanced followed by the diagnostic label.

Examples of the three types of diagnoses

- Actual diagnosis Perceived Constipation R/T faulty appraisal AEB expectation of passage of stool at same time every day

- Risk diagnosis Risk for Aspiration R/T decreased cough and gag reflexes.

- Wellness diagnosis Readiness for Enhanced Spiritual Well-Being.

After formulation, the nursing diagnoses are discussed with the client, but if this is not possible, the diagnoses are discussed with family members. The list of nursing diagnoses is recorded on the client’s record, and the remainder of the client’s care plan is completed.

**Nursing Planning and Outcome Identification**

Planning and outcome identification are the third step of the nursing process and include both establishing guidelines for the proposed course of nursing action to resolve the nursing diagnoses and developing the client’s plan of care. The planning occurs in three phases: initial, ongoing, and discharge.

1. **Initial planning**: involves development of a preliminary plan of care by the nurse who performs the admission assessment and gathers the
comprehensive admission assessment data. Progressively shorter stays in the hospital make initial planning very important to ensure resolution of the problems.

2. **Ongoing planning**: updates the client’s plan of care. New information about the client is collected and evaluated and revisions made to the plan of care.

3. **Discharge planning**: involves anticipation of and planning for the client’s needs after discharge.

The planning phase involves several tasks:

- Prioritizing the nursing diagnoses
- Identifying and writing client-centered long- and short-term goals and outcomes (outcome identification)
- Identifying specific nursing interventions
- Recording the entire nursing care plan in the client’s record

**Prioritizing the Nursing Diagnoses**

Involves deciding which diagnoses are the most important and require attention first.

Maslow’s hierarchy of needs is one of the most common methods of selecting priorities. After basic physiological needs (e.g., respiration, nutrition, temperature, hydration, and elimination) are met to some degree, the nurse can then consider needs on the next level of the hierarchy (e.g., safe environment, stable living condition, affection, and self-worth) and so on up the hierarchy until all the nursing diagnoses have been prioritized.

1. **First-level priority problems (immediate):**
   - Airway problems.
   - Breathing problems.
• Signs (vital sign problems).

2. Second-level priority problems (immediate, after treatment for first-level problems is initiated):
• Mental status change.
• Acute pain.
• Acute urinary elimination problems.
• Abnormal lab values.
• Risks of infection, safety, or security (for client or others).

3. Third-level priority problems:
• Health problems that do not fit in the above categories.

Identifying Outcomes
Outcome identification includes establishing goals and expected outcomes, which together provide guidelines for individualized nursing interventions and establish evaluation criteria to measure the effectiveness of the nursing care plan. Goals a goal is an aim, intent, or end. Goals are broad statements that describe the desired or intended change in the client’s condition or behavior. Client-centered goals are established in collaboration with the client when possible. Goal statements refer to the diagnostic label (or problem statement) of the nursing diagnosis. Client-centered goals ensure that nursing care is individualized and focused on the client.

A short-term goal is a statement that profiles the desired resolution of the nursing diagnosis over a short period of time, usually a few hours or days (less than a week).

A long-term goal is a statement that profiles the desired resolution of the nursing diagnosis over a longer period of time, usually weeks or months. It focuses on the problem part of the nursing diagnosis.
Expected Outcomes After the goals have been established, the expected outcomes can be identified based on those goals. An expected outcome is a detailed, specific statement describing the methods to be used to achieve the goal.

Identifying Specific Nursing Interventions

A nursing intervention is an action performed by the nurse that helps the client achieve the results specified by the goals and expected outcomes. Nursing interventions refer directly to the related factors or the risk factors in nursing diagnoses. Nursing interventions that reduce or remove the related factors and risk factors resolve or prevent the problem. There may be a number of nursing interventions for each nursing diagnosis. Nursing interventions are stated in specific terms. Examples of nursing interventions are as follows:

• Assist client to turn, cough, and deep breathe.
• Weigh client each day at the same time.

Categories of Nursing Interventions:

Nursing interventions are classified into one of three categories: independent, interdependent, or dependent.

1. Independent nursing interventions: are initiated by the nurse and do not require direction or an order from another health care professional. Example: elevating a client’s edematous extremity.
2. **Interdependent nursing interventions**: are implemented collaboratively by the nurse in conjunction with other health care professionals. For example, the nurse may assist a client to perform an exercise taught by the physical therapist.

3. **Dependent nursing interventions**: require an order from a physician or another health care professional. Example: Administration of a medication.

Dependent nursing interventions must be governed by appropriate knowledge and judgment.

### Recording the Nursing Care Plan

Nursing care plans usually include components such as assessment, nursing diagnoses, goals and expected outcomes, and nursing interventions. The care plan is begun on the day of admission and is continually updated until discharge. Care plans may be standardized, institutional, or computerized.

- **The standardized care plan**: is a printed guide for the care of clients with common needs. This care plan usually follows the nursing process format. It may be individualized by including handwritten notes for unusual problems.

- **Institutional nursing care plans**: are concise documents that become a part of the client’s medical record after discharge. This care plan may simply include the nursing diagnoses, nursing interventions, and evaluation.

- **Computers** can generate both standardized and individualized nursing care plans.

### Nursing Implementation

The fourth step in the nursing process is implementation, the performance of the nursing interventions identified during the planning phase. It also involves the delegation (process of transferring a select nursing task to a
licensed individual who is competent to perform that specific task) of some nursing interventions to staff members or assigning a specific nursing task to assistive (unlicensed) personnel capable of competently performing the task. The nurse is accountable for appropriate delegation and supervision of care provided by unlicensed personnel.

Requirements for Effective Implementation

Implementation involves many skills, including assessing the client’s condition before, during, and after each nursing intervention. Psychomotor, interpersonal, and cognitive skills are also needed to perform the planned nursing interventions.

- **Psychomotor skills:** are used when handling medical equipment and performing skills such as changing dressings, giving injections, and helping a client perform range-of-motion (ROM) exercises.

- **Interpersonal skills:** are used when collecting data, providing information in teaching sessions, and offering support in times of grief.

- **Cognitive skills:** enable the nurse to make appropriate observations, understand the rationale for the activities performed, ask appropriate questions, and make decisions about those things that need to be done. Critical thinking is an important element within the cognitive domain. It helps the nurse analyze data, organize observations, and apply prior knowledge and experiences to current client situations.

Orders for Nursing Interventions

Nursing interventions are written as orders in the care plan and may be initiated by nurses or physicians or from collaboration with other health care professionals. Interventions can be implemented on the basis of specific orders, standing orders, or protocols.
A specific order is an order written in a client’s medical record by a physician or nursing care plan by the nurse especially for that individual client; it is not used for any other client.

**Documenting and Reporting Interventions**

The implementation step also involves documentation and reporting. Data to be recorded include the client’s condition before the intervention, the specific intervention performed, the client’s response to the intervention, and client outcomes.

Information that should be shared in the verbal report includes:

- Completed activities and those not completed
- Status of current relevant problems
- Assessment changes or abnormalities
- Results of treatments
- Diagnostic tests scheduled or completed (and results)

**Nursing Evaluation**

Evaluation, the fifth step in the nursing process, determines whether client goals have been met, partially met, or not met.

When a goal is met, the nurse decides whether nursing interventions should stop or continue for the status to be maintained.

When a goal is partially met or not met, the nurse reassesses the situation. The reasons the goal is not met and modifications to the plan of care are determined by more data collection.

Reasons that goals are not met or are only partially met include:

- Initial assessment data were incomplete.
- Goals and expected outcomes were unrealistic.
- Time frame was not adequate.
• Nursing interventions were not appropriate for the client or situation.

Evaluation is a fluid process that depends on all the other components of the nursing process. As shown in Figure (1), evaluation affects and is affected by the other four parts. Ongoing evaluation is essential for the nursing process to be implemented appropriately. Early evaluation enhances our ability to act safely and effectively.