

# Fundamentals of Nursing

## In-depth Study Notes for Loksewa- ANM & SN

### 1.1 Basic Needs of Clients

Nursing is grounded in addressing the basic needs of clients to promote health, prevent illness, and restore well-being. These needs can be broadly classified as physiological, psychological, and social.

#### 1. Physiological Needs:

- **Air, Water, and Food:** Essential for life, nutrition is crucial for healing, energy, and the body's proper functioning.
- **Rest and Sleep:** Proper rest supports the immune system, reduces stress, and promotes cell regeneration.
- **Elimination Needs:** Proper bowel and urinary function are vital. Nurses need to monitor elimination patterns and assist patients with difficulties.
- **Comfort and Hygiene:** Maintaining cleanliness and comfort is fundamental in preventing infections and ensuring patient dignity.

#### 2. Psychological Needs:

- **Safety and Security:** Patients must feel safe both physically (e.g., preventing falls) and emotionally (e.g., trust in healthcare providers).
- **Love and Belonging:** Emotional support through compassionate care fosters a sense of belonging and improves outcomes.
- **Self-esteem:** Encouraging patients to maintain dignity and respect promotes their sense of self-worth.

#### 3. Social Needs:

- **Social Interaction:** Emotional and social support networks (family, friends, community) play a critical role in healing.
- **Cultural Needs:** Understanding cultural values, practices, and beliefs is essential in providing holistic care.

### 1.2 The Nursing Process

The nursing process is a systematic, patient-centered approach to delivering care. It involves five critical stages:

**1. Assessment:**

- Collect data through interviews, physical exams, and medical records.
- Analyze and identify patient problems, needs, and strengths.

**2. Diagnosis:**

- Develop nursing diagnoses based on assessment data.
- It identifies health problems, such as “Risk for Infection” or “Impaired Mobility.”

**3. Planning:**

- Establish short-term and long-term goals.
- Prioritize nursing interventions based on urgency and the patient’s health condition.

**4. Implementation:**

- Carry out the planned interventions, ensuring proper communication and documentation.
- Provide hands-on care such as medication administration, hygiene assistance, and support with mobility.

**5. Evaluation:**

- Assess the effectiveness of interventions.
- Modify care plans as necessary to meet the patient’s evolving needs.

**1.3 Common Nursing Procedures Used in the Hospital**

Nurses perform several common procedures that form the backbone of patient care:

1. **Vital Signs Monitoring:** Includes measuring temperature, pulse, respiration rate, and blood pressure to assess the patient's condition.
2. **Wound Care:** Dressing changes, cleaning wounds, and ensuring proper healing techniques.
3. **Intravenous (IV) Therapy:** Administering fluids and medications through an IV line.
4. **Catheterization:** Insertion of urinary catheters to manage urinary retention or incontinence.
5. **Oxygen Therapy:** Administering oxygen to patients with respiratory problems.
6. **Suctioning:** Removing mucus or other blockages from the airways to help breathing.
7. **Injections/IM/IV Insertion:** Administering medications via intramuscular or intravenous routes.

Each procedure must be performed with proper aseptic techniques to avoid infection.

## 1.4 Stress and Coping Mechanisms

Stress is a natural response to challenges, and the body's reaction can affect physical and mental health. Coping mechanisms help individuals manage stress. In nursing, stress can affect both patients and caregivers.

### 1. Stress Types:

- **Acute Stress:** Temporary stress due to specific situations (e.g., a diagnosis).
- **Chronic Stress:** Long-term stress affecting well-being, often seen in patients with chronic illnesses.

### 2. Coping Strategies:

- **Problem-focused Coping:** Addressing the cause of stress directly, such as following treatment protocols.
- **Emotion-focused Coping:** Managing emotional reactions through relaxation techniques or counseling.
- **Social Support:** Seeking comfort and guidance from family, friends, and healthcare professionals.

3. **Nurses' Role:** Nurses should recognize signs of stress in patients, provide emotional support, and assist with relaxation techniques like deep breathing exercises.

## 1.5 First Aid Treatment

First aid is the initial care provided to someone who has suffered an injury or illness. Nurses play a vital role in delivering effective first aid.

### 1. Steps in First Aid:

- **Assess the Situation:** Ensure the scene is safe for both the victim and responder.
- **Check Responsiveness:** Determine if the person is conscious or unconscious.
- **Provide CPR if Necessary:** For unresponsive individuals, initiate chest compressions and rescue breaths.
- **Control Bleeding:** Apply pressure to wounds to stop bleeding.
- **Immobilize Fractures:** Stabilize broken limbs to prevent further injury.
- **Monitor Vital Signs:** Keep track of pulse, breathing, and consciousness while awaiting emergency responders.

## 1.6 Administration of Drugs

Administering drugs correctly is essential to patient safety and recovery. Nurses must follow the "Five Rights" of drug administration:

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1. **Right Patient:** Confirm patient identity using multiple identifiers.
2. **Right Drug:** Verify the correct drug name, dosage, and route.
3. **Right Dose:** Ensure the appropriate dosage is administered.
4. **Right Route:** Administer the medication via the correct route (oral, IV, IM, etc.).
5. **Right Time:** Ensure medications are given at the correct time and interval.

Nurses also need to educate patients about the medications they are taking, including potential side effects and interactions.

### 1.7 Infection Prevention

Infection prevention is critical in a hospital setting to reduce the risk of healthcare-associated infections (HAIs).

1. **Hand Hygiene:** Wash hands thoroughly before and after patient contact.
2. **Personal Protective Equipment (PPE):** Use gloves, gowns, and masks to prevent the spread of infections.
3. **Environmental Cleaning:** Regularly disinfect surfaces, equipment, and patient rooms.
4. **Aseptic Technique:** Maintain a sterile environment when performing procedures like catheterization or wound care.
5. **Vaccinations:** Ensure staff and patients are vaccinated against preventable diseases.

### 1.8 Methods of Collecting Different Specimens for Routine and Culture Tests

Specimen collection is essential for diagnostic testing. Proper collection methods ensure the accuracy of test results.

1. **Urine Specimens:**
  - Clean-catch method for urine culture.
  - 24-hour collection for renal function tests.
2. **Blood Specimens:**
  - Venipuncture for serum and plasma.
  - Capillary sampling (fingerstick) for glucose monitoring.
  - Arterial blood gas (ABG) for respiratory and metabolic status.
3. **Sputum Specimens:**
  - For culture and sensitivity tests, ask patients to expectorate into a sterile container.

**4. Stool Specimens:**

- For fecal occult blood tests or stool culture.

**5. Wound Cultures:**

- Swab the wound bed or drainage site to test for pathogens.

Each specimen should be labeled correctly, stored appropriately, and transported to the lab in a timely manner to avoid contamination or degradation.