Environment

NURS 141 Unit I

Aims of Quality Care

- Safety
- Effectiveness
- Patient-centered
- Timeliness
- Efficiency
- Equitable

Environment

Definition- all internal or external conditions or influences that effect us and our status on the health illness continuum.

What is a safe environment?
External Environment

Basic Physiological Needs
- Temperature comfort level = 65° - 75°
  - Hypothermia
  - Hyperthermia
- Humidity comfort level = 60% - 70%
  - Skin evaporation
  - Humidification for respiratory system
- Light
  - Comfort
  - Safety
  - Stimuli for G&D
- Oxygen
- Nutrition

External Environment

Pollutants
- Noise
  - Decibels
  - Senses
  - Sleep
- Air
- Water
- Land

External Environment

Pollutants
- Radiation

- Pathogens
External Environment

Sociocultural

Extended Family

Local church

State Gov’t

Individual/ Immediate Family

Neighbors

Friends

Co-workers

Local community

Church denomination

Internal Environment

Biological

- Nutrition
- Fluids & electrolytes
- Immunity
- Race

Immunity – defense against infection

- Invading microorganism attacked by monocytes - remaining fragments = antigens

     Immune response

     a. lymphocytes (cell mediated),
     b. antibodies & immunoglobulins

Passive immunity

Natural immunity

Artificial active immunity
Internal Environment

Diversity = variety, not alike, dissimilar
- Culture
- Ethnicity
- Growth & development
- Biological rhythms
- Gender

Internal Environment

Psychosocial.
- Self-concept – individual’s knowledge about the self. Subjective sense of self, mixture of thoughts, feelings, attitudes, & perceptions.
- Body image
- Self-esteem
- Cognition

Cultural & Ethnic Groups

Culture: A set of beliefs, values, & attitudes that characterizes a group of people and affects individual behavior.
Ethnicity: groups whose members share a common social & cultural heritage from successive generations.
Cultural & Ethnic Groups

Specific cultures:
- Asian
- African-American
- Caucasian
- Hispanic

Nursing significance
- Cultural behavior
- Ethnocentrism
- Stereotyping
- Cultural sensitivity

Impact of Culture on Health

- Time orientation – past, present, future
- Communication
- Space
- Social organization
- Environmental control
- Biological variations
Spirituality

Definition – force that gives meaning to life.
Significance in health.
- Source of hope
- Defines our existence.
- Achieves harmony.
- Resource for healing.
- Provides sense of hope.

Assessment.
- Source of strength?
- What gives meaning to life?
- Objects/symbols.

Model for spiritual assessment & intervention

Influence of Religions

Common characteristics:
- System of practices
- Organized outward expression of beliefs
- Birth & death rituals

Practices
- Jehovah’s witness – prohibits blood transfusions
- Judaism – body washed by burial services/ circumcision on day 8
- Christianity – last rites or communion/ baptism
- Diet restrictions – vegetarian diet

Spiritual Interventions

Nursing diagnosis
- Ineffective individual coping
- Hopelessness

Interventions
- Educate – Instill hope
- Provide support
  • Establish a caring presence
  • Listen to concerns
  • Referral to pastoral care
  • Include family/significant others
Healthy Environment

- Safety
- Comfort
- Disease transmission control
- Sensory stimulation

Influencing factors
- Developmental level
- Diversity
- Disease transmission

Patient’s Healthy Environment

Safety risk factors
- Immobility
- Limitations
- Medications
- Safety awareness
- Age
  - Resource
  - http://hartfordign.org/Resources/Try_This_Series/

Hygiene
- Social practices
  - Frequency
  - Timing
- Culture
- Education
Patient’s Healthy Environment

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Patient’s Healthy Environment

Disease transmission – Chain of infection

Modes of Transmission

Contact
– Direct (fecal, oral, or contact client, herpes)
– Indirect (inanimate objects, needles, dressing, hep B)
– Droplet (large particle: Cough, sneeze, talk, i.e., measles, influenza virus, rubella)

Air
– Droplet - Droplet suspended in air (TB, chicken pox)

Vehicle
– Contaminated items. H2O - Cholera, drugs, solution - pseudomonas, Blood - Hepatitis C
– Food - salmonella, E. coli
Modes of Transmission (con't)

- Vector
  - External mechanical transfer (flies)
  - Internal transmission - Mosquito - malaria, fleas, Ticks - Lyme's disease

Patient's Healthy Environment

- Asepsis
  - Clean/clean
  - Sterile/sterile
  - Dirty/dirty
- Medical asepsis
  - Handwashing
  - Alcohol-based waterless antiseptic
  - Antimicrobial soaps
  - Antiseptics
  - Disinfectants

Patient's Healthy Environment

- Standard precautions
  - CDC guidelines
    - Purpose
    - Blood & body fluid precautions
    - Laundry
    - Waste disposal
    - Protective equipment
  - Handwashing
  - Gel
Cellular response to Infection = Inflammation

- Protective response - ↑ blood flow
  - Redness
  - Warmth
  - Edema
  - Release of histamines – increased pain
  - Increase in WBC’s
- Exudate – fluid, dead tissue & WBC’s
- Tissue repair

Surgical asepsis

- Sterilization
- Disease transmission
- Chain of infection
- Prevention of transmission

Healthy Environment for the Nurse

- Safety
- Asepsis
- Environmental hazards
  - Human immunodeficiency virus (HIV)
  - Hepatitis B virus (HBV)
  - Hepatitis C virus (HCV)
  - Respiratory infections
Healthy Environment for the Nurse

- Prevention
  - Hygiene
  - Standard precautions
  - Sharps precautions
  - HIV testing
  - Post exposure protocols
  - Respiratory precautions
  - Immunizations

Environmental Hazards

- Physical environment
  - Clutter
  - Furniture
  - Equipment
  - Floors
  - Lighting

- Physical injury
  - Falls
  - Restraints
  - Violence

- Thermal injury
  - Fire
  - Electrical

- Chemical injury
  - Ingestion
  - Allergens

- Microbial
  - Respiratory
  - Infectious agents
  - Resistant agents
  - Nosocomial agents

- Hazardous materials
  - Spills
  - Medication
  - Wastes
  - Oxygen
Nursing Interventions

Protective body mechanics
- Stability
- Leverage
- Motion
- Body alignment

Restraints
Transmission control

Basic Personal Safety Measures

Assess violence risk
- Local demographics
- Security policies
- Gang identifiers

Identify patients prone to violence

Strategies to avoid harm
- Exits
- How to summon help
- Safe distance

Summary

Nurse’s role in regard to environment
- Risk factors
- Advocacy
- Safety
- Manipulation of the environment
- Holistic view