

Discipline of Nursing M 5015

- Rest and Sleep
- Comfort
- Nutrition

Rest and Sleep

- Sleep: a state of rest, accompanied by altered consciousness and relative inactivity.
- Rest: a condition in which the body is in a decreased state of activity with the consequent feeling of feeling refreshed.

Circadian Rhythm

- Rhythmic biological clock
 - Influenced by internal and external factors
 - Individual biological clocks
- Need to be in sync: activities and ones biological clock.
 - Patient: noisy environment of hospital
 - Nurse: shift work
 - Lay public: jet lag

Sleep and Rest: Developmental Considerations

- Differences by age:
 - Infants 16 hrs.
 - Children 12 hrs.
 - Adolescents varies: probably should have 8 hrs.
 - Adult: 6-8 hrs.
 - Elderly 5-7 hrs.
 - Old-old 8-12 hrs.

Factors that affect sleep requirements

- Age
- Activity/exercise
- Illness
- Medications
- Diet
- Alcohol
- Environmental considerations

Sleep Disorders

- Insomnia: difficulty falling asleep
 - Stress
 - Medication
 - Hormonal changes
 - Illness: hyperthyroidism, psych: manic
 - Recreational drugs
- Narcolepsy: difficulty staying awake (CNS derangement)

Sleep Apnea

- Periods of apnea during sleep
 - Common: middle aged men who are obese and have short, thick necks
 - Obstructive apnea: large tonsils or adenoids, collapse of hypopharynx
 - Dx. by polysomnography: EEG, O₂ Saturation and EKG
 - Tx.: identify and tx. the cause

Sleep Deprivation

- Increasing sx. After 30 hrs of continuous awake period.
 - Decreased ability of concentrate
 - Irritability
 - Depressed reflex / reaction time
 - Impaired judgment

Promoting Sleep

- Restful environment
- Bedtime rituals
- Snacks/beverages
- Avoid caffeine
- Promote comfort / address pain
- Respect normal patterns
- Schedule nursing care to work within normal patterns for patient.
- Medications

Nursing Diagnosis

- Sleep pattern disturbance (insomnia) r/t ICU environment
- Breathing pattern impairment r/t sleep apnea

Comfort

- Pain: "is whatever the experiencing person says it is, existing whenever he (or she) says it does"McCaffery (1979).
- Categories of pain:
 - Nociceptive: acute, result of noxious stimuli
 - Cutaneous: skin or subcutaneous tissue
 - Somatic pain: deep, diffuse, originates from blood vessels, tendons, ligaments or bones
 - Visceral pain: poorly localized, originates in organs in cranium, thorax or abdomen.
 - Neuropathic pain: pain from insult to nerves or CNS.
 - Allodynia: neuropathic pain after slight stimulation

Referred pain

- Pain perceived in an area that is distant from the source.e.g.:
 - AMI: jaw, left arm
 - Renal Colic (kidney stone): groin

Structural Pain Patterns of Organs

- Bowel: cramping, sharp, with 2-3 minute repeat cycles
- Solid organs: (liver, kidney, ovary): sharp, steady without relation to body function
- Hollow organs: (uterus, bladder, gallbladder) sharp, cramping, related to body function
- Arteries: severe, steady, with sharp accentuations
- Blood in abdominal cavity: dull awareness, then sharp, steady
- Myocardium: all referred, dull, heavy ache, weight, tight band.

Pain Patterns of Specific Problems

- Appendicitis: starts with dull peri-umbilical, develops to sharp RLQ. Rebound tenderness at McBurnies point.
- AMI: heavy, dull, vice like, epi-gastrum, or sternum to left arm or sternum opt jaw.
- Lower lobe pneumonia: steady, sharp pain which increases with inspiration.
- Acute cholecystitis: starts with diffuse epigastric pain, develops to sharp RUQ pain. Referred pain to right scapular area: Kehr's sign.
- Dissecting Aortic Aneurysm: back pain, sharp lower back pain with testicular pain.
- Ruptured Ectopic pregnancy: sudden sharp, steady pain in LQ, referred pain to scapular and base of neck.

Responses to Pain

- Behavioral:
 - move away form
 - Grimacing, moaning, crying
 - Guarding
- Physiologic:
 - Inc. b/p, pulse, RR
 - Pupil dilation
 - Muscle tension
 - Pallor
 - Inc. adrenalin output
 - Inc. blood glucose

Assessment of pain

- Location and ..
- P provoking factors
- Q quality
- R radiation
- S severity (scale 1-10)
- T time/duration

Barriers to pain assessment

- Developmental: age: young child use pictures, smiley faces, or infant, use your judgment: look for facial grimacing
- Language: get an interpreter
- Non-literate: use color scale

Evaluation

- After intervention for pain MUST evaluate effectiveness
 - Always get a baseline of pain level before intervention
 - Perform the intervention
 - Depending upon the intervention and expected time for action, re-evaluate.
 - Check periodically, as most interventions will have to be repeated.

Non-pharmacological Relief Measures for Pain

- Heat/cold therapy
- Distraction/diversion
 - Music, humor
- Imagery
- Relaxation
- Cutaneous stimulation (TENS, massage)
- Acupuncture
- Hypnosis
- Biofeedback
- Therapeutic Touch

Pharmacological Therapy

- Non-controlled ie: NSAIDS
- Controlled: narcotics and opioids
- Adjuvant: multipurpose

- Use the smallest amount, of the least powerful that will control the pain.
- Usually use high to break the pain cycle, and then can reduce.

Narcotics and Opiates

- Extremely powerful.
- Most common side effect: respiratory depression. Usually preceded by sedation: use sedation scale to assess:
 - 1= awake, alert
 - 2= occasionally drowsy
 - 3= frequently drowsy
 - 4= somnolent, lethargic. (d/c narcotic/opiate)

Acute Pain

- Must get control of the pain to break the pain cycle
 - Give dose ATC
 - Adjust to receive maximum benefit with minimum SE
 - Allow patients control
 - Medicate until pain control is achieved

Pain control variations by age

- Younger patients: Just because you are young does not mean that you do not feel pain.
- Older patients: Little research r/t pain control in the elderly. With decreased liver function, may need lower doses to achieve same effect.

Modes of pain control

- Self medication
- Patient controlled analgesia
- Administered medication:
 - PO, SQ, IM, IV, epidural
 - Local medication: local infiltration, nerve block, ointment

Nursing Diagnosis

- Acute pain (rt. Flank) r/t renal colic
- Chest pain r/t AMI
- Chronic pain (bilateral joints of hands) r/t rheumatoid arthritis.
- Impaired mobility r/t hip joint pain of chronic arthritis

Nutrition

- **Nutrients:** specific biochemical substances used by the body for growth, development, activity, health maintenance and recovery from illness/injury.
- **Calories:** energy obtained from nutrients in the diet.
- **Basal metabolism:** the amt. Of energy required to carry on the involuntary activities of the body at rest.
- **Ideal Weight:** rule of thumb:
 - female: 100 lbs + 5 lbs for each inch over 5 feet.
 - Male: 106 lbs. + 6 lbs for each inch over 5 feet.
- Can = or – 10 % based upon body frame size.

Body Mass index (BMI)

- Kg / ht^2 (in meters) or
- Lbs / ht^2 (in inches) X 704.5
(see BMI chart)
- BMI > 25 overweight
- BMI > 30 obese

Required Nutrients

- Carbohydrates
- Fats
- Proteins
- Vitamins
- Minerals
- Water

Healthy Diet

- Moderation
- Variety
- Balanced
(see food pyramid)
- Males: 2400, cal daily
- Females: 2100 cal daily

Factors which Influence Nutrient Requirements/ Intake

- Age: infants to older adult
- Pregnancy
- Activity
- Illness
- Alcohol abuse
- Medication
- Economics
- Psychosocial factors
- Cultural

Anthropometrics

- Measurements to determine body dimensions
- Height
- Weight
- Triceps skin fold
- Mid arm circumference

Enteral Nutrition

- Provided through passing a feeding tube: can be naso gastric, or PEG (percutaneous endoscopic gastrostomy tube).
- Must always confirm placement of the tube: instill air, and listen for gurgling sounds.
- Uncomfortable
- Use only as necessary
- Risks associated with

Naso gastric Tube

- Check placement before each feeding
- Potential for aspiration
- Patient misses the taste of food
- Check residual
- If patient is sick enough for tube feedings, must weigh the patient to track weight.
- Change the formula at least Q 4 hrs, so it does not go bad.

Total Parenteral Nutrition

- Meets nutritional requirements directly via IV methods. Bypasses the GI tract.
- Highly effective, but HIGH RISK.
- These patients are susceptible to local and systemic infections, hyperglycemia.
- Used when serum albumin levels > 2.6 g/dl.

When to medicate for pain?

- As long as pain medication will not mask symptoms and interfere with diagnosis, treat the pain.
- Use the proper medication: drug, dose, timing, route

Nursing diagnosis

- Altered nutrition (less than required caloric intake) r/t bulimia
- Risk for aspiration r/t NG tube
- Altered nutrition state (obesity) r/t high fat, high caloric diet
- Potential for infection (line sepsis) r/t TPN infusion.
