

Pain Management

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Goals:

- To improve awareness of pain physiology, pain issues, assessment skills, and ways to manage chronic pain in older adults
- To effectively incorporate strategies of medical treatment, complimentary therapy, and psychological, social, and spiritual support for clients and families

Pain is a BIG Problem:

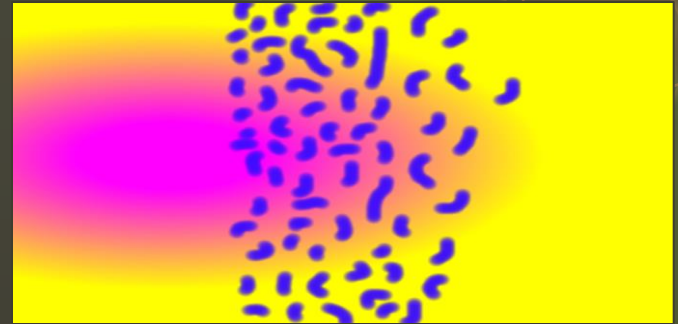


- Unrelieved pain often results in Emergency room visits
- Pain is costly
- Pain affects all aspects– physical, emotional, spiritual and social
- Under-treating pain has huge impact on other health problems and on quality of life
- Pain is subjective- can be difficult to assess and manage

Understanding Pain:

- Pain reception in peripheral nervous system and spinal cord
- Pain messages (nerve impulses from sensory stimulation)
- Types of pain stimuli
 - Mechanical - edema, tumors, trauma
 - Chemical- irritation from secretions on nerve endings (perforated organs, pancreatitis, MI
 - Thermal - loss of epidermis exposing sensitive nerve endings to hot or cold
 - Electrical - tissue injury from electrical sources

Pain Physiology:



○ 1. Transduction

- Conversion of a mechanical, thermal, or chemical stimulus into a neuronal action potential

Pain Physiology (continued):

○ 2. **Transmission**

- Movement of pain impulses from the site of transduction to the brain
 - Transmission along the nociceptor fibers to the level of the spinal cord
 - Dorsal horn of spinal column processing
 - Transmission to the thalamus and the cortex of the brain

Pain Physiology (continued):

○ 3. **Perception**

- Occurs when pain is recognized, defined, and responded to by the individual experiencing the pain

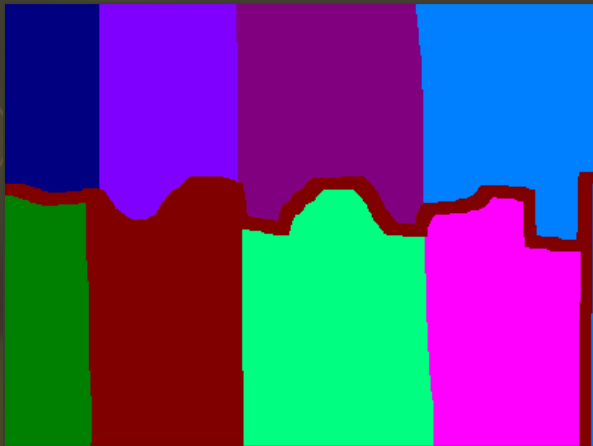
○ 4. **Modulation**

- Activation of descending pathways that inhibit or facilitate the transmission of pain

Gate Control Theory:

- Developed 1965, it is the most influential pain theory
- Proposed gating mechanism in spinal cord
- Opening and closing of the gate was determined by
 - Amount of activity
 - Type of nerve fiber (myelinated is fast)
 - Selective cognitive processes

Using Gate Control Theory:



- Interrupting pain during transduction, transmission, perception, or modulation can be effective for controlling acute or chronic pain.

Acute Pain:

- Onset is sudden
- Usually lasts less than 3-6 months
- Can be mild or severe
- Decreases over time
- Typically has related signs and symptoms
 - Elevated HR, resp. rate and BP
 - Increased anxiety, agitation, confusion and urinary retention

A Definition of Chronic Pain:

- **“Severe persisting pain or moderate pain of long duration that disrupts sleep and normal living, ceases to serve a protective function, and instead degrades health and functional capability...”**

-Chapman and Stillman (1996)



Chronic Pain:

- Long term pain for over 6 months
- Typically, the pain doesn't go away
- Decreased physical and social activity
- Fatigue, and sleep problems
- Decreased appetite
- More difficult to treat than acute pain
 - Nerve endings "expect" pain
- Difficult to assess objectively- physical "stress response" no longer seen

Pathology of Pain:

- Nociceptive pain
 - Originates from damage to somatic or visceral tissue
- Neuropathic pain
 - Caused by damage to nerve cells or changes in spinal cord processing
- Psychogenic Pain - Has emotional or psychological origin



Pain Assessment:

- Intensity (Use pain scale to rate pain)
- Location of Pain
- Observe any physical findings
- Quality
- Timing
- Aggravating and alleviating factors
- Analgesic history
- Goals and expectations for pain control

“Quality” of Pain:

- Somatic Pain-from bone/connective tissue with localized **aching, gnawing, stabbing**
 - Arthritis, muscle, tendon or bone injuries
- Visceral Pain-Deep pain like **cramping, gnawing, pressure, or squeezing**
 - Pancreatitis, kidney stones, surgery
- Referred Pain-Felt in a different body part
 - MI, liver, gallbladder
- Neuropathic Pain-**burning, numb, touch sensitive, radiating, shooting, or tingling**
 - Herpes zoster, neuropathies, phantom pain

Pain Management:



- **Nurses find creative ways to decrease pain and prevent suffering.**
- **Nurses use knowledge of pain physiology, and appropriate pain management interventions when planning care.**
- **Quality of life and functional abilities of our patients are optimized with effective pain control.**

Treatment of Pain:

- Pharmacologic Intervention
 - Analgesics
 - Adjuvants
- Non-pharmacologic (Alternative pain interventions)
- Psychosocial interventions
 - Promote spiritual health/Refer for pastoral care PRN
 - Maintain hope/Prevent despair
 - Complete Advance Directives PRN

Examples of Analgesics:

- Mild Pain - Non-narcotic analgesics
 - Acetaminophen (Tylenol)
 - Non-steroidal anti-inflammatory drugs (NSAIDS) like ibuprofen, naproxen, aspirin, Disalcid
- Moderate Pain -
 - Opioid combination analgesics, “weak opioids”, like Percocet, Tylenol #3, Lortab
- Severe Pain- “Strong opioids”
 - Oxycodone, morphine sulfate, Duragesic (fentanyl) patch, oxycontin

Examples of Adjuvants:

- For Neuropathic pain
 - Anti-convulsants, like Neurontin
 - Anti-depressants, like Amytriptyline
- Anti-anxiety, like Ativan
- Anti-emetic, like Compazine
- Anti-gas, like simethicone
- Antacid, like Maalox
- Sleeping pills, like Ambien
- Steroids, like Prednisone

WHO (World Health Organization) Three-Step Analgesic Ladder

Satisfactory Symptom Management

Opioid for moderate to severe pain
 \pm Non-opioid
 \pm Adjuvant

Pain persisting or increasing

Opioid for mild to moderate pain
+ Non-opioid
 \pm Adjuvant

Pain persisting or increasing

Non-opioid
 \pm Adjuvant

Pain

Pain Management:

- Use oral route whenever possible
 - Oral or sublingual opioids are available in liquid form
- Rectal, transdermal, topical, nasal, and intravenous routes are sometimes used
- Avoid injections, if possible
- Epidural or intrathecal analgesic or anesthetic can be administered with injections or pump
 - Nerve Blocks

Other Considerations:

- Management of side effects
 - Prevent and manage constipation when opioids are prescribed (stool softener with laxative should be prescribed)
 - Nausea and sleepiness usually resolve about 1 week after starting opioids
 - Anti-emetics can be prescribed for first week
- Acetaminophen to total 4000mg or less per 24 hours (3000mg for frail elderly)
- Don't use more than one combination analgesic or sustained release preparation

Controlling Moderate to Severe Pain:

- For continuous pain, use sustained release preparations, like MS Contin, Oxycontin, Duragesic to control “background pain”
- Usually a short-acting opioid medication is prescribed for “breakthrough pain”
- For intermittent pain, use short-acting meds PRN, like oxycodone, Morphine Sulfate Immediate Release (MSIR), or combination analgesics

What if Pain Control is Ineffective?

- For mild pain (1-4 out of 10), increase dose by 25%
- For moderate pain (5-6 out of 10), increase opioid dose by 50%
- For severe pain (7-10 out of 10), increase opioid dose by 75-100%
- May use equianalgesic dosing tables to calculate dosage of opioids to be given in 24 hours

Non-pharmacologic Pain Interventions:

- Positioning/Posture
- Education/Anticipatory Guidance
- Touch- Gentle pressure or massage
- Heat/cold treatment
- Relaxation/Distraction/Music/Pet Therapy
- Meditation/Guided imagery
- Aromatherapy
- Acupuncture/Acupressure
- TENS (nerve stimulator)



Discussion:

- What are the common concerns that patients may have about pain and opioids?

What are common side effects when starting an opioid medication, and how should the nurse intervene?

Sleepiness

Nausea

Constipation

Discussion:

- How do you respond to a patient who wants to “wait until the pain is so bad they can’t stand it” because they are afraid they will become “immune” to the pain medication?

Why do some patients not tell health professionals about their pain?

Discussion:



What is the difference between physical dependence, tolerance, and addiction?

Tolerance vs. Addiction:

○ Tolerance

- No “high” (opioids are metabolized differently as they address the pain)
- Usually some physical tolerance and dependency to pain medications develop

○ Addiction

- Psychological “high”
- Intention to harm the body
- Negative personal, legal or medical consequences

True Addiction?

○ Addiction:

- Usage is out of control
- Obsession with obtaining a supply
- Quality of life does not improve

■ Pseudo-Addiction

- From under-treatment of pain
- Drug-seeking/Crisis of mistrust
- Behavior and function improve when pain is relieved



Discussion:



What might the consequences be if you do not believe your patient's level of pain?

Special Considerations for Pain Assessment:

- **Depression** – Perception and interpretation is affected
- **Mental illness** – May have similar behaviors as pain, even without pain
- **Mental retardation or Developmental Disabilities** - Use simple language like hurting, sore, ache – Ask them to point
- **Dementia** – May not be able to express pain. Include family and caregivers in assessment

Nonverbal Indications of Pain:

- Watch for change in behavior
- Crying, moaning, calling out
- Agitated or aggressive behavior
- Increased frustration or irritability
- Changes in sleep or eating habits
- Withdrawal from friends, family, or favorite activities



Pain Management:

- Encourage analgesics to be regularly scheduled
 - Schedule pain medication at bedtime to promote good quality of sleep
- Treatment is more effective if analgesics are taken before pain is at its worst
- Encourage analgesic prior to treatments or activities that aggravate their pain

Pain in Children:

- Children feel pain just as intensely
- Keeping parents informed, as part of the “team” is important
- Anticipatory guidance helps children to cope with pain more effectively
- Careful calculations for dosing adjustments is vital
 - Dosages are usually based on child’s weight
- Children can use a faces scale for pain assessment

Special Considerations in Elderly:

- Slower metabolism
 - Increased risk of higher levels accumulating
- Increased risk of medication interactions
 - Usually taking several different prescription and OTC medications and herbal supplements
- Economic considerations
 - Medication costs, food, health care

Family Involvement:

- Support of family and friends is important
 - Promotes compliance
 - Communicates with health professionals
 - Evaluates effectiveness
 - Supervises medication use
 - Provides medication reminders or assistance as needed
 - Promotes understanding of cultural issues

Consideration for Other Cultures:

- **Cultural Pain** is defined as: “**hurtful, offensive, and inappropriate acts or words** to an individual or group that are experienced as **insulting, discomforting, or stressful** due largely to the lack of awareness, sensitivity and understanding of **differences in cultural values, beliefs, and meanings** of the offended persons”. (Leininger, 1997)

Cultural Pain occurs when nurses or medical professionals impose their culture onto their patients

Examples of Cultural Differences:

- Different cultural beliefs related to pain (Leininger, 1997)
 - German, Irish, Russian, Mexican-American cultures-Stoic
 - Jewish, Italian-Dramatic
 - Arab Muslim- prayer times take priority over medication or procedure times
 - African Americans- believe “soul food” will help them recover

Transcultural Nursing Concepts:

- Uphold cultural rituals if possible
- Learn about different cultural and religious beliefs
 - Patients may be culturally traditional or non-traditional
- Use mutually agreed upon interventions to improve patient cooperation and compliance



Review:



- Screen for pain- **Ask!**
- Do thorough assessment, using your assessment tool and pain scale
- Use pharmacological and non-pharmacological interventions
- Consult with physician and others on pain team
- Re-Assess to evaluate effectiveness of interventions
- Improve the quality of life of your patients by effectively managing pain!

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