Objective

- Cite effective non-pharmacological nursing interventions for orthopaedic pain
Assessment of Orthopedic Pain

“Careful assessment and evaluation to the patient’s pain will allow the nursing staff to determine the appropriate nursing interventions required. The nursing management might involve such actions as repositioning the patient, support or elevations of the affected limbs, application of heat or cold, or the administration of analgesics, sedatives, or muscle relaxants as ordered by the physician”.

Assessment of the Orthopedic Pain

Pain Assessment Tools

- Pain scale, WONG-Baker FACES scale, Verbal rating scale, etc.
- Description of the pain
- Duration of pain
- What makes it worse or better

Patients with advance dementia require behavioral observation to determine the presence of pain.

(Wells, Passaro, and McCaffery, 2008)
Complementary and Alternative Medicine

“Complementary and alternative medicine can work safely alongside each other as long as there is effective communication between all practitioners as well as between patients and practitioners”

(Prince of Wales Foundation for Integrated Health, UK, 2003)
Complementary and Alternative Medicine
((Wells, Passaro, and McCaffery, 2008))

- Opioids, nonopioid, and NSAID’s
- Alternative Interventions
- Effective Communication

Gittell and Colleagues study suggested that communication, goal setting, and patient education contributed to better pain outcome.
Patient Education
(Wells, Passaro, and McCaffery, 2008)

- Done in the Pre-op phase
- Ensures the patient is familiar with the scale
- Alternatives to pain management
- Assess for Coping Techniques
Coping Techniques
(Wells, Passaro, and McCaffery, 2008)

- Natural
- “Before suggesting or instructing patients in the use of nondrug techniques, nurses need to be aware of the methods used effectively and preferred by the patient.”
Non Pharmacological pain management Techniques

- **COGNITIVE**
  1. Distraction
  2. Relaxation
  3. Music

- **PHYSICAL**
  1. Massage
  2. Cold Therapy
  3. Repositioning
  4. Elevation, immobilizing the effected part
Cognitive Techniques
Distraction

• Focusing attention away from the pain
• Distraction is Effective

(Wells, Passaro, and McCaffery, 2008)
Distraction

- Imagery
- Slow gentle breathing
- Music

One study found that 19% to 28% of patients spontaneously adopt a distraction technique while recovering from total hip or total knee arthroplasty

(Pellino, Gordon, Engelke, et al., 2005.)
Relaxation

- It’s safe
- Induce sleep
- Reduce pain
- Calm emotions
- Breathing and focused attention can calm the mind and body

( NIH National Center for Complementary and Alternative Medicine, 2013.)
How Relaxation Techniques May Work
(National Institutes of Health, 2013)

- Contrasts with the “fight or flight’ stress response
- Slows the heart rate
- Reduces Blood Pressure
- Reduces oxygen consumption and levels of stress hormones
- Relaxation techniques may reduce surgery pain, as well as abdominal pain
Relaxation techniques benefit the following conditions (NIH, 2013)

- Anxiety
- Asthma
- Depression
- Fibromyalgia
- Headache
- Heart disease and heart symptoms
- High Blood Pressure
- Insomnia
- Irritable bowel syndrome
- Nausea
- Nightmares
- Overactive Bladder
- Pain
- Tinnitus
- Smoking cessation
- Temperomandibular condition (TMJ)
MUSIC (Ware, 2013)

- Can reduce stress and create a calming environment
- Contributes to distraction
- Refocusing attention
Choosing Music

Sedating or soothing music is

- Instrumental
- Synthesizer
- Harp
- Piano
- Orchestra
- Slow jazz

The intervention is delivered via audiotape and headphones. The duration is typically 20-30 minutes and may involve a single or multiple exposures.

(Wells, Pasero, and McCaffery, 2008)
Physical Techniques
Hand and Foot Massage
( Wells, Pasero, and McCaffery, 2008)

- Massage. Recently investigators have examined hand and foot massage as an alternative to back or body massage.

- Reviews of the massage literature conclude it has a beneficial effect on
  - Anxiety
  - Tension
  - Depression
  - Stress hormones
  - Pain
Cold for Pain Control

- Application of cold for pain relief and reduction of swelling is recommended by the American Academy of Orthopedic Surgeons (2011).
- “Ice Compression minimize swelling and pain”.
  
  (Roberts, 2007)
Research on Cold Therapy

- Cold Therapy has been investigated in patients undergoing orthopedic surgeries (primarily total knee arthroplasty) and has been found to improve pain, range of motion, and function.
- However, a study by Smith and others found that pain similar with the cryo pad and the compression bandage applied by the surgeon at the end of surgery; in addition, the cold therapy increased the cost of care and took more nursing time.
- Thus, using cold therapy via the cryo pad provides no benefit over compression bandages after knee replacement and is less cost effective.
Repositioning

“all that may be required is to realign the body or reposition the affected limb. Proper body alignment is a key factor in patient comfort.”

Positioning for Better Respiratory and GI function
(O’Plasty, 2008)

- Assess the patient’s current position in the bed.
- Note the position of the hips relative to the bed.
- If the hips are moved to just above the place where the bed bends [___x/], the patient will be able to have better lung and abdominal excursion, thus contributing to enhanced comfort levels.
Positioning Tips

- Are the hips and shoulders in line?
- A slight misalignment can cause an unacceptable level of pain
- The patient will be more comfortable with the hips and shoulders in line and the patient’s weight distributed equally over the body.
Safe Repositioning

- Never pull the patient by the arm to help her/him roll onto her side
- Always use the pad or the flat part of your hand against the largest firm patient structure— the hip, upper thigh, mid back between the scapula— to roll a patient to the side.

“An affected limb may require support or elevation on pillows in order to reduce swelling and reduce strain on the associated musculature.”

(Nursing care of the musculoskeletal system, Kindle Edition, 2012)
Immobilizing the Injured Part
(Roberts, 2007.)

- Prolonged Immobilization (more than 3 to 4 weeks) of a joint can cause stiffness, contractures and muscle atrophy.

- These complications may develop rapidly and may be permanent, particularly in the elderly.

- Immobilization decreases pain and facilitates healing by preventing further injury and is helpful except for very rapidly healing injuries.

- Joints proximal and distal to the injury should be immobilized.
Conclusion

Pain control is better attained when is managed by properly assessing the patient’s previous experiences and how they have managed it at home. Better outcomes are also obtained when pain is managed using complementary and alternative medicine.
Questions???
References


