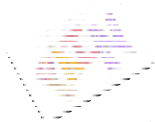


# NONPHARMACOLOGIC APPROACHES to PAIN MANAGEMENT



Linda J. Keilman, DNP, GNP-BC

## Objectives:

1. Define & recognize pain.
2. Identify evidence-based nonpharmacological approaches (NPAs) for effective management of pain.



All images fall within Public Domain, Creative Commons, NYPL collection, MS ClipArt

- An unpleasant sensory & emotional experience associated with actual or potential tissue damage, or described in terms of such damage  
*(International Association for the Study of Pain, 1979)*
- The clinician must accept the patient's report of pain  
*(American Association of Pain, 2003)*
- A subjective experience & no objective tests exist to measure it  
*(American Pain Society, 2009)*
- Whatever the experiencing person says it is, existing whenever the person says it does  
*(McCaffery, 1968)*

## What is wrong with these definitions?



- Older adults tend to under report pain
- Individuals with cognitive impairment (CI) may experience pain differently
  - Ability to describe symptoms is impaired
  - If CI becomes dementia, the ability to communicate & remember pain becomes increasingly difficult
- Pain is undertreated in dementia  
*(Sarbacker, 2014)*
  - Individuals with dementia are at risk for multiple sources & types of pain  
*(Horgas, 2012)*

- Self-report
  - Cannot speak; limited vocabulary (“owie”)
- Observer report
  - Changes in behavior
  - Facial expression
  - Not moving/guarding parts of body
  - High pitched, persistent crying
- Physiological responses *(how the body reacts)*
  - May not be changes
  - Used in combination with other methods



- All pain is a very individualized, subjective experience
  - Self-report of pain is the single most reliable indicator of pain
- Chronic pain is one of the most common conditions in older adults & is associated with substantial disability & costs (Reid et al., 2016)
- Presentation of pain may be non-specific
- Consider pain the 1<sup>st</sup> vital sign
- There are no universal tests for pain

- Medication } ———— AND
- NPAs } At the SAME time!
- Consider:
  - What works & does not work?
  - Trial & error
- Documentation – **EXTREMELY** important!
  - Effectiveness of medication
  - Effectiveness of NPAs
  - How do you know?



## Underlying Pain Principles

- Moral imperative
- Chronic pain can be a disease itself
- Treatment & management = comprehensive
- Interprofessional approach
- Prevention is paramount
- Research evidence should be translated to practice & utilized (evidence-based)
- Safe, effective & appropriate prescription of medications (including opioids)
- Treatment success depends on relationships



## Nonpharm Approaches (NPAs)

\* = empirically supported; evidence based

### Advantages:

- Addresses the psycho-social-spiritual-cultural-environmental potential reason for the pain
- Holistic & person-centered
- Avoids use of medications that can decrease QOL
- Preserves communication & interaction
- Creates memorable moments
- Improves/maintains QOL for all involved

- Not used in place of appropriate medications but rather as an adjunct

- Utilize as soon as possible



- Know the individuals story

- Past interests, hobbies, activities, likes & dislikes, experience, preferences, values, their *bucket list*

- **INDIVIDUALIZE** the approaches!

- Many of the interventions, techniques & strategies require active involvement from the individual (*cognitively intact*)

- Empowerment

- Increased self esteem & self worth

- Older adults with CI can & should be involved in interventions starting with their preferences

- Caregiver & provider education, patience, creativity, *knowing the person's story*

- \* Activities/Activity

- Individual

- Meaningful

- Intentional

- Physical (*exercise*)

- Aerobic

- Low impact

- Water (*hydrotherapy*)

- Stretching & strengthening are effective exercises for improving pain & function

- Tai chi, yoga, Pilates, chair



- Acupuncture

- \* Animal Assisted Therapy (AAT)

- Pet visitation

- Certified, family pets, farm animals, strays

- Aromatherapy

- Use of scents to relax, relieve stress & decrease pain

- \* Assistive Devices

- Eye glasses, hearing aids, canes, WC

- Shoes, clothing



- \* Bathing Alternatives

- Bathing Without a Battle (*Barrick et al., 2002*)

- \* Biofeedback

- Machine that helps the individual control their physiological function & relax

- \* Care Plans

- Individualized, detailed, comprehensive

- \* Communication

- Consider YOUR words & how you ask

- Slow, repetitive, simple explanations



- Nonjudgmental acceptance

- Assure the individual you believe they are in pain

- Neutral “I” responses

- “That must be very difficult for you”

- “I understand that ...”

- Consider:

- Social pressure

- Cultural expectations

- Health literacy principles

- Empowerment & advocacy



- \* **Cognitive-Behavioral Therapy (CBT)** = *Psychological intervention*
  - Adaptive & therapeutic coping strategies
  - Behavioral rehearsal
    - Imagining/thinking about performance
    - Practicing
    - Role-playing
- \* **Cryotherapy** (*decrease pain & swelling; prevent further tissue damage; numbing effect; soothing*)
  - Cold/ice
  - Compresses/packs



- \* **Coping Strategies**
  - Adaptive
- \* **Daily Routine**
  - Consistent
  - Familiar
  - Honoring basic bodily/human functions
- \* **Distraction / Diversion**
  - Person-centered
  - Everyone is a unique individual
  - Knowing their story very helpful!



- \* **Environment Modification**
  - Lighting, sound, temperature, smells
  - “Home-like”
  - Comfortable seating (*arms, back support*)
  - Mattress (*pressure redistributing*)
  - Bed height
  - Positioning/repositioning (*neutral body alignment*)
  - Smooth & tight linens
  - De-clutter
  - Placement of furniture



- \* **Heat** (*sore muscles, spasms, old injuries*)
  - Warm
  - Moist
  - No heating pads over an ointment
- \* **Hypnosis/Hypnotherapy**
  - A state of conscious change requiring the body to relax
- \* **Humor & Laughter**
  - Relaxes whole body
  - Triggers release of endorphins
  - Boosts the immune system
- \* **Immobilization** (*with caution*)



- \* **Listening**
  - The ability to accurately receive & interpret messages in the communication process
  - Not the same as hearing
  - Types:
    - Active
    - Comprehensive
    - Discriminative
    - Empathic
    - Reflective
    - Intentional

Listening  
=  
Learning

- **Lifestyle Changes:**
  - Adequate sleep
  - Balanced nutritional intake
  - Drinking plenty of water
  - Limiting caffeine
  - Physical activity
  - Routines
  - Smoking cessation
  - Monitoring alcohol & drug intake

Live. Life. Healthy

- \* **Massage** (*body, feet, hands, legs, head, back*)
  - Progressive muscle relaxation/techniques
  - Techniques: friction, percussion, vibration, tapotement
- \* **Mindfulness Meditation**
  - Mindfulness based stress reduction (MBSR)
  - Guided imagery
- \* **Music or Music Therapy (MT)**
  - Positive effects on pain & anxiety from a pathophysiology perspective



- \* **Observation**
- \* **Presence**
  - Being with
  - Empathic
- \* **Rehabilitation**
  - Physical or occupation therapy
  - Optimizing ROM, strength, endurance, neuromuscular control
- \* **Reflexology**
  - Pressure points in the feet that correspond to parts of the body (organs, systems)



- \* **Reminiscence**
  - Life review
- \* **Religion/Spirituality/Faith**
  - Improve coping skills, social support, foster feelings of optimism/hope, promote healthy behavior, reduce feelings of depression & anxiety, encourage a sense of relaxation
  - Meaningful practices
  - Prayer (*centering*)
  - Readings
  - Rituals



- \* **Self-Management**
  - Culturally & linguistically appropriate
  - \* **Education** (*in both print & electronic form*)
    - **Teach:**
      - Nature of pain
      - Self-help strategies to prevent, cope with & reduce pain
      - Benefits, risks & costs of pain management options
    - **Journaling, diary, log**
  - \* **Spinal Cord Stimulation (SCS)**



- \* **Sleep Hygiene**
- \* **Social interaction**
- \* **Telephone Support**
- \* **TENS** (Transcutaneous Electrical Nerve Stimulation)
  - Portable, battery powered
  - Advanced applications:
    - Alpha Stim
    - Biowave
- **Therapeutic Use of Self**
  - *YOU can be a therapeutic approach!*

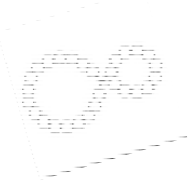


- \* **Touch**
  - Therapeutic (TT)
  - Healing
  - M-technique (*stroking in cycles of 3*)
  - Rocking, holding, cuddle, hug, handshake
- \* **Weight reduction**



"Welcome to the Weight Loss Forum.  
To lose one pound, double-click  
your mouse six million times."

# PEARLS



**Pain is always subjective!**

**Pain can exist even when no physical cause can be found!**

**Assume that older adults with CI or dementia have pain if they have conditions typically associated with pain!**

**All people are unique individuals with their own needs, wants & desires!  
Options & choices are paramount!**

**A uniform pain threshold does not exist!**

**A pain assessment should address the physical, psychological, cultural & spiritual aspects of pain**

**NPAs are effective in pain management!**

**Know the person's story!**

**Be proactive, preventative, positive & hopeful!**

**Optimal pain management is the**

**RIGHT**

**of all individuals**

**&**

**the ethical responsibility**

**of all health care professionals**

# Outcomes



- Endorphin release
- Fatigue/lethargy/energy level improved
- Decreased inflammation
- Improved circulation
  - Increased blood flow
- Muscle relaxation
- Decreases the strength & doses of medication required on a daily basis



- **Improvement in quality of life (QOL)**
- **No pain or tolerable, manageable pain levels**
- **Maintain function** (*physical, mental, emotional, spiritual, social*)
- **Maintain cognition**
- **Hope**
- **Socialization**
- **Decreased morbidity & mortality**
- **Decreased use of health care & decreased costs**



# References & Resources

Administration on Aging (AOA), Department of Health & Human Services. (2013). *Aging statistics*. Retrieved from [http://www.aoa.gov/Aging\\_Statistics/](http://www.aoa.gov/Aging_Statistics/)

American Geriatrics Society Panel on the Pharmacological Management of Persistent Pain in Older Persons. (2009). Pharmacological management of persistent pain in older persons. *Journal of the American Geriatrics Society*, 57(8), 1331-1346.

American Medical Directors Association. (2009). *Pain management in the long-term care setting: Guideline summary NGC-7638*. Columbia, MD: Author.

American Society of Anesthesiologist Task Force on Chronic Pain Management; American Society of Regional Anesthesia and Pain Medicine. (2010). Practice guidelines for chronic pain management: An updated report by the American Society of Anesthesiologists Task Force on Chronic Pain Management and the American Society of Regional Anesthesia and Pain Medicine. *Anesthesiology*, 112(4), 810-833.

Arnstein, P. (2010). Assessment of nociceptive versus neuropathic pain in older adults. *Best Practices in Nursing Care to Older Adults: Try This Series*. Retrieved from [http://consultgerim.org/uploads/File/trythis/try\\_this\\_sp1.pdf](http://consultgerim.org/uploads/File/trythis/try_this_sp1.pdf)

Barrick, A.L., Rader, J., Hoeffler, B., & Sloane, P.D. (2002). *Bathing without a battle: Personal care of individuals with dementia*. New York, NY: Springer Publishing Company, Inc.

Bernhofer, E.I., & Sorrell, J.M. (2012). Chronic pain in older adults. *Journal of Psychosocial Nursing*, 50(1), 19-23.

Bjoro, K., Bergen, K., Herr, K. (2008). Tools for pain assessment in older adults with end-stage dementia. *Quarterly Newsletter of the American Academy of Hospice and Palliative Medicine*, 9(3), 1-3.

Braun, C., Stangler, R., Narveson, J., & Pettingell, S. (2009). Animal-assisted therapy as a pain relief intervention for children. *Complementary Therapies in Clinical Practice*, 15(2009), 105-109.

Bruckenthal, P. (2010). Integrating nonpharmacologic and alternative strategies into a comprehensive management approach for older adults with pain. *Pain Management Nursing*, 11(2), S23-S31.

Centers for Medicare & Medicaid Services (CMS). (2010). Minimum data set (MDS) 3.0. Section J: Pain Management. Retrieved from [http://www.ahcancal.org/facility\\_operations/Documents/RAI\\_3.0/MDS%203.0%20Chapter%203%20-%20Section%20J%20V1.02%20June%2010,%202010.pdf](http://www.ahcancal.org/facility_operations/Documents/RAI_3.0/MDS%203.0%20Chapter%203%20-%20Section%20J%20V1.02%20June%2010,%202010.pdf)

Chandler, R., & Bruneau, B. (2014). Barriers to the management of pain in dementia care. *Nursing Times*, 110(28), 12-16.

Christo, P.J., Li, S., Gibson, S.J., Fine, P., & Hameed, H. (2011). Effective treatments for pain in the older patient. *Current Pain and Headache Reports*, 15, 22-34.

Cousins, N. (1979). *Anatomy of an illness*. New York City, NY: W.W. Norton & Company, Inc.

Dillon-McDonald, D., Gifford, T., & Walsh, S. (2011). Effect of a virtual pain coach on older adults' pain communication: A pilot study. *Pain Management Nursing*, 12(1), 50-56.

Eccleston, C., Morley, S.J., & Williams, A.C. (2013). Psychological approaches to chronic pain management: Evidence and challenges. *British Journal of Anesthesia*, 111(1), 59-63.

Ferrell, B.A., (1995). Pain evaluation and management in the nursing home. *Annals of Internal Medicine*, 123, 681-687.

Fouladbakhsb, J.M., Szczesny, S., Jenuwine, E.S., & Vallerand, A.H. (2011). Nondrug therapies for pain management among rural older adults. *Pain Management Nursing*, 12(2), 70-81.

Geriatric Pain. (n.d.) Retrieved from <http://www.geriatricpain.org/Pages/home.aspx>

Gracely, R.C. (2016). Pain language and evaluation. *Pain*, 157(7), 1369-1372.

Hashefi, M., & Katz, J.D. (2013). Nonpharmacologic, complementary, and alternative interventions for managing chronic pain in older adults. *Clinical Geriatrics*, 21(3).

Hawker, G.A., Mian, S., Kendzerska, T., & French, M. (2011). Measure of adult pain. *Arthritis Care & Research*, 63(S11), S240-S252.

Herr, K. (2010). Pain in the older adult: An imperative across all health care settings. *Pain Management Nursing*, 11(2 supplement), S1-S10.

Herr, K. (2011). Pain assessment strategies in older patients. *The Journal of Pain*, 12(S3), S3-S13.doi:10.1015/j.jpain.2010.11.011

Institute of Medicine. (2011). *Relieving pain in America: A blueprint for transforming prevention, care, education, and research*. Washington, DC: The National Academies Press.

Keilman, L.J. (2015). Compendium of evidence-based nonpharmacologic interventions for pain in older adults. *Advancing Excellence in America's Nursing Homes*. Retrieved from [https://www.nhqualitycampaign.org/files/Guide\\_to\\_Evidence-based\\_NonPharmacologic\\_Interventions\\_for\\_Pain.pdf](https://www.nhqualitycampaign.org/files/Guide_to_Evidence-based_NonPharmacologic_Interventions_for_Pain.pdf)

King, S., Chambers, C.T., Huguet, A., MacNevin, R.C., McGrath, P.J., Parker, L., & MacDonald, A.J. (2011). The epidemiology of chronic pain in children and adolescents revisited: A systematic review. *Pain, 152*(2011), 2729-2738.

Klassen, B.L., Liu, L., & Warren, S.A. (2009). Pain management best practice with older adults: Effects of training on staff knowledge, attitudes, and patient outcomes. *Physical & Occupational Therapy in Geriatrics, 27*(3), 173-196.

Klein, A. (1989). *The healing power of humor*. Los Angeles, CA: Tarcher/Putnam.

Marcus, D.A., Bernstein, C.D., Constantin, J.M., Kunkel, F.A., Breuer, P., & Hanlon, R.B. (2012). Animal-assisted therapy at an outpatient pain management clinic. *Pain Medicine, 13*(1), 45-57. doi:10.1111/j.1526-4637.2011.01294.x

McAuliffe, L., Borwn, D., & Fetherstonhaugh, D. (2012). Pain and dementia: An overview of the literature. *International Journal of Older People Nursing, 7*, 219-226.

McClean, S., Bunt, L., & Daykin, N. (2012). The healing and spiritual properties of music therapy at a cancer care center. *The Journal of Alternative and Complementary Medicine, 18* (4), 402-407. doi:10.1089/acm.2010/0715

McPherson, M.L., & Uritsky, T.J. (2009). Pharmacotherapy of pain in older adults: Nonopioid. In F.M. Gloth (Ed.), *Handbook of pain relief in older adults: An evidence-based approach*. Baltimore, MD: Springer Media. doi:10.1007/978-1-60761-618-4\_4

Molton, I.R., & Terrill, A.L. (2014). Overview of persistent pain in older adults. *American Psychologist, 69*(2), 197-207. doi:10.1037/a0035794

Munk, J., Kruger, T., & Zanjani, F. (2011). Massage therapy usage and reported health in older adults experiencing persistent pain. *The Journal of Alternative and Complementary Medicine, 17*(7), 609-616.

Nadler, S.F. (2004). Nonpharmacologic management of pain. *Journal of the American Osteopathic Association, 104* (11, S8), S6-S12.

National Institutes of Health. National Center for Complementary and Alternative Medicine (NCCAM). <http://nccam.nih.gov/health/pain/chronic.htm>

Nguyen, J.T., Grzywacz, J.G., Lang, W., Walkup, M., & Arcury, T.A. (2010). Effects of complementary therapy on health in a national U.S. sample of older adults. *The Journal of Alternative and Complementary Medicine, 16*(7), 701-706.

Ni-Thuathail, A., & Welford, C. (2011). Pain assessment tools for older people with cognitive impairment. *Nursing Standard, 26*(6), 39-46.

Park, J., & Hughes, A.K. (2012). Nonpharmacological approaches to the management of chronic pain in community-dwelling older adults: A review of empirical evidence. *Journal of the American Geriatrics Society, 60*, 555-568.

Reid, M., Ong, A.D., & Henderson, R. (2016). When we need Nonpharmacologic approaches to manage chronic low back pain in older adults. *JAMA Internal Medicine*. Published online.

Quinlan-Colwell, A. (2012). *Compact clinical guide to: Geriatric pain management*. New York City, NY: Springer Publishing Company.

Scherder, E., & Plooi, B. (2012). Assessment and management of pain, with particular emphasis on central neuropathic pain, in moderate to severe dementia. *Drugs Aging, 29*, 701-706.

Smith, G.B. (2011). Persistent pain in older adults: Don't be afraid to prescribe opioids. *Advance for NPs and PAs, 2*(9), 23-27.

Songer, D. (2005). Psychotherapeutic approaches in the treatment of pain. *Psychiatry, 19*-24.

Thiekle, S. (2012). Are these 4 pain myths complicating care? *Journal of Family Practice, 61*(11), 666-670.

Tse, M., Wan, V., & Ho, S. (2011). Physical exercise: Does it help in relieving pain and increasing mobility among older adults with chronic pain? *Journal of Clinical Nursing, 20*, 635-644. doi:10.1111/j1365-2702.2010.03547.x

University of Iowa. (n.d.). Geriatric pain. Retrieved from <http://www.geriatricpain.org/Content/Management/Interventions/Pages/default.aspx>

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics. (2015, May). *Health, United States 2014: With special feature on adults aged 55-64*. Washington, DC: Authors.

Venable, E.F., Lee, H., Lee, I. (2015). Pain assessment in persons with cognitive impairment. Retrieved from <http://emedicine.medscape.com/article/2113960-overview#a7>

Wang, D., & Feinstein, A. (2011). Managing pain in older adults: The benefits of yoga postures, meditation and mindfulness. *Topics in Geriatric Rehabilitation, 27*(2), 104-109.

Weaver, D. (2009). Minimizing pain and promoting comfort for older adults in care. *Nursing & Residential Care, 11*(7), 329-332.

Weiner, D.K. (2007). Office management of chronic pain in the elderly. *The American Journal of Medicine, 120*, 306-315.

Wittink, H.M., Rogers, W.H., Lipman, A.G., McCarberg, B.H., Ashburn, M.A., Oderda, G.M., & Carr, D.B. (2006). Older and younger adults in pain management programs in the United States: Difference and similarities. *Pain Medicine, 7*(2), 151-163.



**Linda J. Keilman, DNP, GNP-BC**  
**Michigan State University, College of Nursing**  
**1355 Bogue Street, A 126 Life Science Building**  
**East Lansing, MI 48824**  
**517 355 3365**  
**keilman@msu.edu**