

## Geriatric Pain Management, Pharmacological and Nonpharmacological Considerations

**Purpose:** The main goal of this study is to consider pain management options for the geriatric population to provide them relief from physical discomfort. Within this article, the authors compare the use of pharmacological and nonpharmacological interventions and their effect on the elderly. This study also focuses on the different complications that may arise during the treatment of persistent pain in the geriatric population.

**Design:** This study focuses on finding the best treatment for each individual based on their needs. For example, the author goes through the barriers that could be affecting the individual, stresses the importance of a physical examination and assessments, and goes through different treatments that would be most beneficial for each person.

**Sample:** The sample consisted of the elderly population, including the nursing home population as well as community-dwellers.

**Results:** The results showed that persistent pain is widespread among the elderly population. However, with the right treatment modality for each individual, it is possible to manage the pain. The study explains how the method of providing analgesics at regular intervals has been estimated to be 80-90% effective in managing pain for the elderly. Therapeutic exercises have also been proven to decrease pain. For example, if an elderly patient does 8-12 repetitions at 60-70% over 12 weeks in the affected portion of the body, then this has been shown to improve quality of life, decrease fatigue, and enhance strength.

Level of Study: Level 2  
Quality of Study: Good Quality

### Clinical Significance:

The clinical significance of this study is that individual examinations and tests are done in-depth to determine the most effective treatment for each patient. Some elderly found that pharmacological interventions work better than non-pharmacological and vice versa. It is important for the care team to take the time to individualize care so that the patient experiences relief. Also, the staff must be aware of the complications and side effects of each treatment option. Once the treatment of choice is determined, it may need to be adjusted in the future.

## Seth Pierron, Cassie Pohlman, & Hannah Kramer

### PICO Question:

In the geriatric population, how does the use of non-pharmacological interventions compare to pharmacological options in reducing pain?



### Resources:

Kaye, A. D., Balach, A. R., Kaye, R. J., Niaz, R. S., Kaye, A. J., Liu, H., & Fox, C. J. (2014). Geriatric pain management, pharmacological and nonpharmacological considerations. *Psychology & Neuroscience*, 7(1), 15-26. <http://dx.doi.org.ezproxy.libraries.wright.edu/10.3922/j.pns.2014.1.04>

While people believe pain is a normal part of aging, it is not. However, pain is common in older adults. It can often debilitate the person and increase their chance of falls, functional impairments and slow rehabilitation. This is why treatment of pain in older adults is so crucial and why health care providers need to adequately and quickly subdue their pain.

For effective treatment, it is important to do a pain assessment to figure out the best strategy for the patient. There may be challenges such as underreported pain or pharmacodynamic changes to drugs. It is important to work with the patient and the patient's care team to determine these challenges. The patients have multiple options of pain interventions to choose from either pharmacological or non-pharmacological. Some non-pharmacological treatments include massage, acupuncture, meditation, heat/cold therapy, and physical therapy. These options offer the patient a different choice from the regular pharmaceutical options that are often prescribed by doctors. These interventions can save patients money while also reducing pain; however, there is still a lot of argument as to the effectiveness of non-pharmacological interventions. With this reason, people often use different pharmacological options including NSAIDs (Ibuprofen, Motrin, Advil), Acetaminophen (Tylenol), Opioids/Narcotics (Morphine, Oxycodone) and Corticosteroids (Prednisone, Prednisolone). Research is now showing, however, that a combination of non-pharmacological and pharmacological treatments are effective when treating pain in older adults. Within this project, there is compiled research to evaluate the effectiveness of non-pharmacological pain interventions in comparison to traditional pharmacological options.

## Non-Pharmacological Approaches to Pain Management in Residential Aged Care: a Pre-Post-Test Study

**Purpose:** The main goal of this study was to look at the effectiveness of non-pharmacological pain interventions in those of the geriatric population. They used different types of pain control measures such as massage, exercise, and TENS.

**Design:** Each participant was created a pain management program to reduce their pain. This included four sessions per week of non-pharmacological treatments such as massage therapy, TENS, exercise/stretching or a combination of them. The physiotherapists selected the intervention base on their clinical expertise. There are some instances that residents did not receive treatment due to refusal, being out of the facility and the resident was sick.

**Sample:** The total sample size was 186 participants/residents. Inclusion criteria for participants included as have been assessed for having chronic pain through medical practitioner diagnosis, residing at the nursing home for at least 8 weeks at the time of data collection, able to speak English, and not bed bound. The average age of participants was 83 years of age with a range of 60-100 years old.

**Results:** There were significant reductions in pre-session pain ratings across the 8 weeks. The mean pain rating decreased from 2.5 to 2.4 in the eighth week which is statistically significant. Looking at pre-session and post-session pain ratings, they were decreased significantly across the four sessions. The participants reported having less pain later in the week than earlier in the week. Session 1 pain mean score was 2.46. By session 4, it had dropped to 2.37 showing that this was also statistically significant. Looking at the average pretreatment pain score it was rated as 2.4 and the average post-treatment was 1.1. This shift of pain control is considered both clinically and statistically significant. The intervention group that received the largest decreases in pain scores were participants who received both massage and TENS. This study also looked at PRN pain medication use before and after this period. The number of participants who did not receive PRN medications increased from 62% to 66% which is statistically significant when looking at the results.

Level of Study: Level 2  
Quality of Study: Medium/Good Quality

### Clinical Significance:

The clinical significance of this study is that non-pharmacological pain control interventions can be effective in reducing pain and PRN pain medication use. The residents in long term care/residential aged care facilities should be offered a non-pharmacological pain intervention to reduce their pain. The staff working at these facilities should also be trained to assess and manage the residents pain. By doing this, there may be a reduction in the heavy reliance on pharmaceutical pain control measures and polypharmacy affecting older adults.