Guided Imagery with Relaxation for Reduction of Symptoms and Medication Use

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Problem

- 80% of those over 75 have osteoarthritis (OA) symptoms
- It is estimated that 60 million older adults will have OA by 2020
- OA is the leading cause of disability in adults with annual medical costs of $80.8 billion
- Pain and limited mobility result in a downward spiral ultimately reducing independence and quality of life
Purpose

- This pilot study tested a cognitive-behavioral intervention, guided imagery with relaxation (GIR), to decrease symptoms and reduce medication intake in older adults with OA

Theoretical Basis for Intervention

- BioPsychoSocial Theory of Chronic Pain
- Psychoneuromuscular Theory

Intervention

- Guided imagery with relaxation is a specific script for musculoskeletal pain and mobility difficulties
Intervention (cont.)

- 3 components:
  - Using multiple senses to project themselves in pleasant scene
  - Guided relaxation from feet to head (not Jacobson’s)
  - Return to pleasant scene but with imaging themselves moving about without any difficulty

- Endstage suggestion

Conceptual Model for Design

Hypotheses

- Older adults with OA using guided imagery with relaxation will have
  - significant reduction in pain,
  - Significant increased mobility,
  - and significant reduction in use of pain and arthritic medication,
  - than those who use a sham intervention, planned rest
Method
- Design: 4-month longitudinal randomized assignment
- Sample: 30 women randomly assigned to 2 groups
- Measures at baseline, 2 months, & 4 months
  - Pain NRS
  - Arthritis Impact Measurement Scale-SF (AIMS-SF) mobility scale
  - Western Ontario and McMaster University Osteoarthritis Index (WOMAC)
  - Logged doses of medication

Analysis
- Repeated Measures ANOVA
- Poisson distribution technique

Findings
- Participants who used GIR reported significant changes in average pain, mobility, and medication use than those who used sham intervention
Decreased Average Pain

- Significantly decreased average pain from baseline to 4 months ($p = 0.0284$)

 Increased Average Mobility

- Significant improvements in mobility from baseline to 2 months ($p = 0.0225$)
  
  AIMS-SF, not WOMAC

Decreased OTC Use

- Significantly decreased average OTC use from baseline to 4 months ($p = 0.0189$)
Decreased Rx Use

- Significantly decreased average prescribed analgesics use from baseline to 4 months ($p=0.0347$)

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Baseline Month 2 Month 4
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Decreased Total Medication Use

- Significantly decreased total medication use from baseline to 2 months ($p=0.0248$)

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Baseline Month 2
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- Significantly decreased total medication use from baseline to 4 months ($p=0.0008$)

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Baseline Month 4
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Implications

- Guided imagery with relaxation is a self-management intervention that may lessen symptoms in those with OA and may be an adjunctive treatment that would lessen use of medications, reducing both cost and side-effects.