

Using Guided Imagery to Reduce Pain and Anxiety

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Houston, TX
November 10, 2015

Abstract ID # 73876

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Conflict of Interest Disclosure

No employment relationship with a commercial interest.

No leadership position with a commercial interest.

No research funding from a commercial interest.

No consultant or advisory position.

No commercial interest speaker's bureau.

No stock or investment holdings.

No other compensation.

Study Funding

Funding for this study was provided through the CHI St. Luke's Health—Baylor St. Luke's Medical Center Nursing Research fund.

Using Guided Imagery to Reduce Pain and Anxiety Objectives

Identify the impact of pain on physiological and psychological functioning.

Describe the effect of guided imagery on pain, anxiety, and medication use.

I've learned that people will forget what you said,
people will forget what you did, but people will never
forget how you made them feel.

Maya Angelou

What is Integrative Medicine?

Definition

- Practice of medicine that reaffirms the importance of the relationship between practitioner and patient, focuses on the whole person, is informed by evidence, and makes use of all appropriate therapeutic approaches, healthcare professionals and disciplines to achieve optimal health and healing.
- Group of diverse medical and health care systems, practices, & products that are not presently considered to be part of conventional medicine.
- Frequently called Complementary & Alternative Medicine (CAM)
- Complementary Medicine
 - Used **with** conventional medicine
- Alternative Medicine
 - Used **instead of** conventional medicine

Who uses integrative medicine?

- Older women
- Middle-aged to younger seniors (40-69 years)
- Higher income
- Higher education
- Poorer health status
- Non-urban or rural areas
- Ethnic minority groups

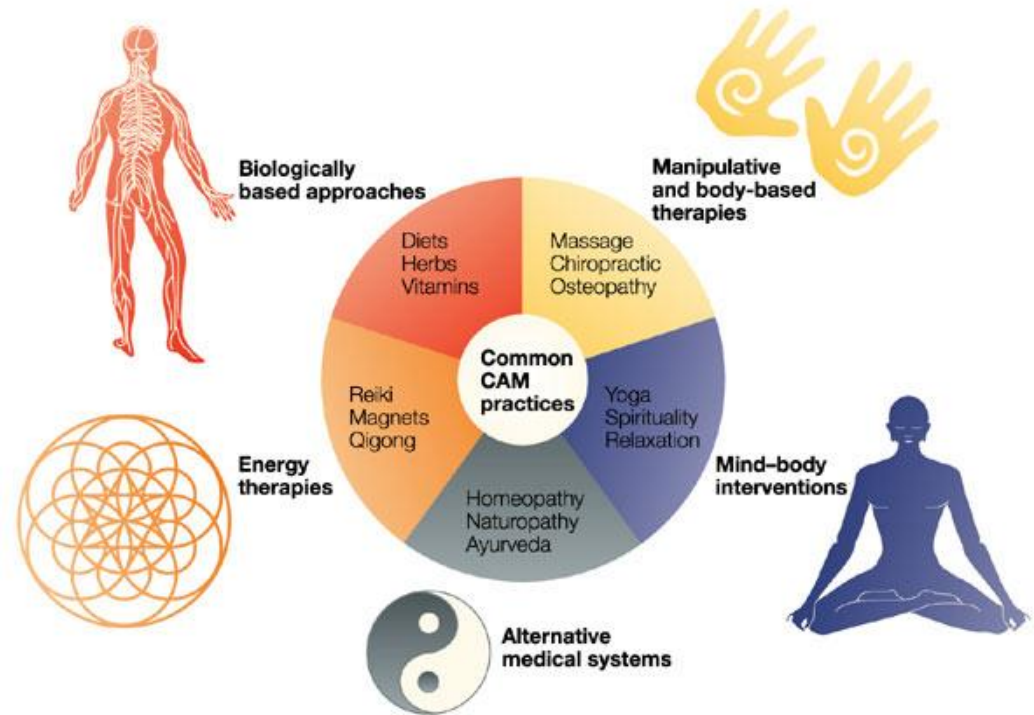


Barnes PM, Bloom B, Nahin R. *CDC National Health Statistics Report #12. Complementary and Alternative Medicine Use Among Adults and Children: United States, 2007*. December 2008;

Adams, Lui, & McLaughlin (2009) *Reviews in Clinical Gerontology*, 19(4), pp 227-236.

Why is integrative medicine used?

- Dissatisfaction with conventional medicine & practitioners
- Postpone age-related deterioration & mortality
- Natural medicines are accessible, safe, & effective
- Autonomy over health care decisions
- Manage pain** from acute and chronic conditions



Nature Reviews | Immunology

What Is Pain?

Definition

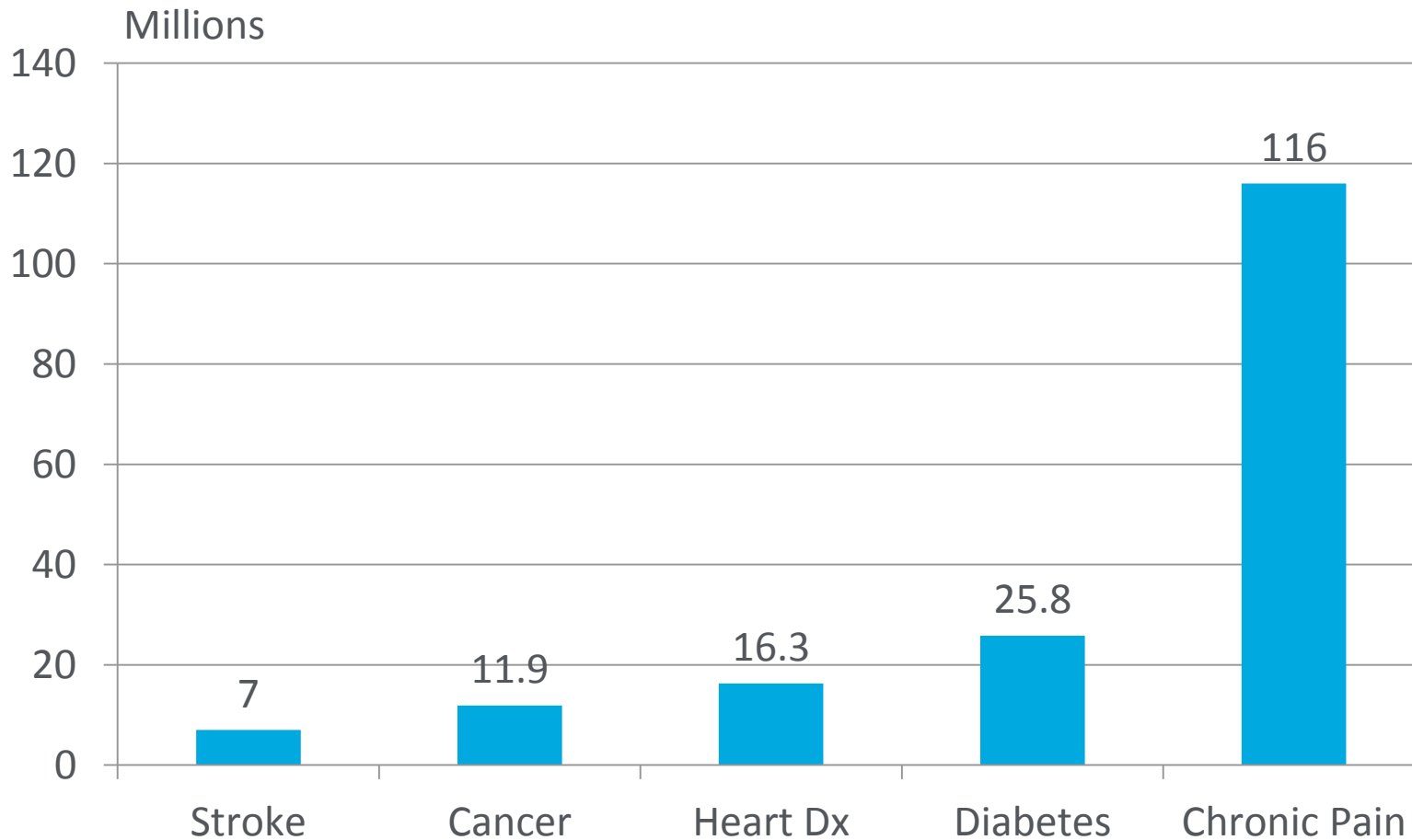
An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage

Classified as:

- Acute
- Acute exacerbation of recurring condition
- Chronic
- Cancer

International Association for the Study of Pain, 1994;
American Society for Pain Management Nursing, Optimizing the Treatment of Pain in Patients with Acute Presentations (Position Paper). Retrieved from American Society for Pain Management Nursing website: www.aspmn.org

Incidence of Pain Compared to Other Major Conditions



Impact of Pain

Negative impact on physiological functioning

- Cardiac
- Respiratory
- Metabolic
- GI
- Mobilization

Psychosocial consequences

Uncontrolled acute pain can lead development of chronic pain

Age, racial & gender disparities

Increased use of health care

Cost of Pain



Pain & Integrative Medicine

38% of American adults use some form of CAM

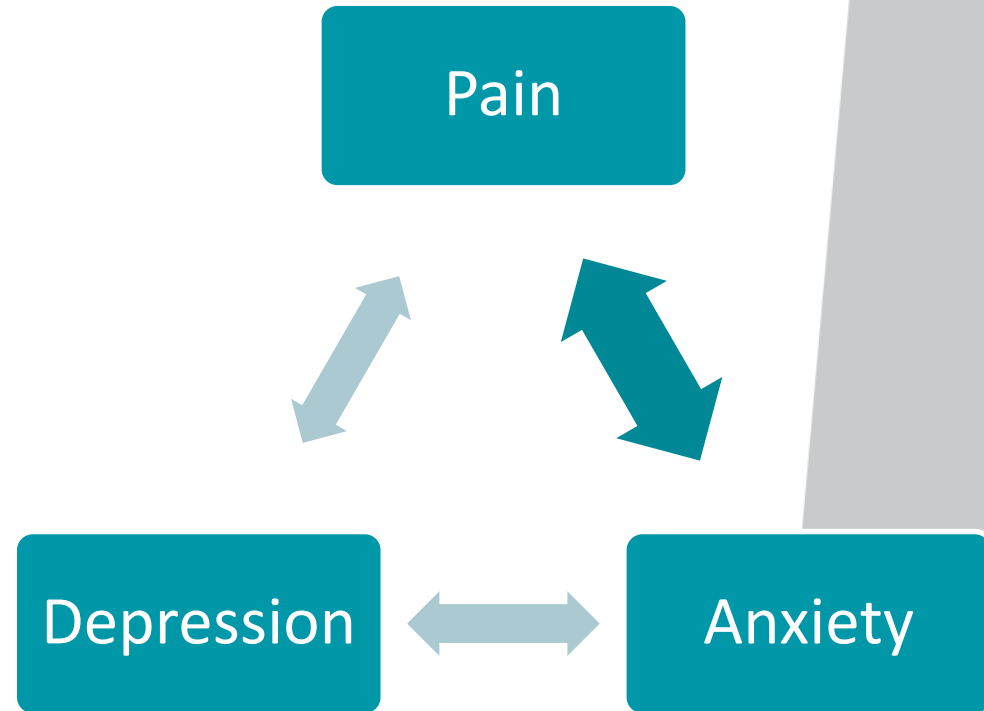
CAM use accounts for \$33.9 billion total health care expenditures

Painful conditions are **number one** reason adults report for using CAM



Pain & Anxiety Connection

- Relationship between anxiety, depression, & pain
- Pain 2 X more prevalent with generalized anxiety disorder
- 54% w/ pain also had anxiety vs. 21% w/o pain
- Association between pain & anxiety greater than association between pain & depression
- Higher health care cost for dx. anxiety disorder & pain
- 50% of chronic pain patients have anxiety



Physiological Link

Pain & Anxiety

- Hippocampus plays role in ability to process pain
- Pain related anxiety increases perceived pain intensity
- Adaptation to the worst possible outcome & accompanied by anxiety



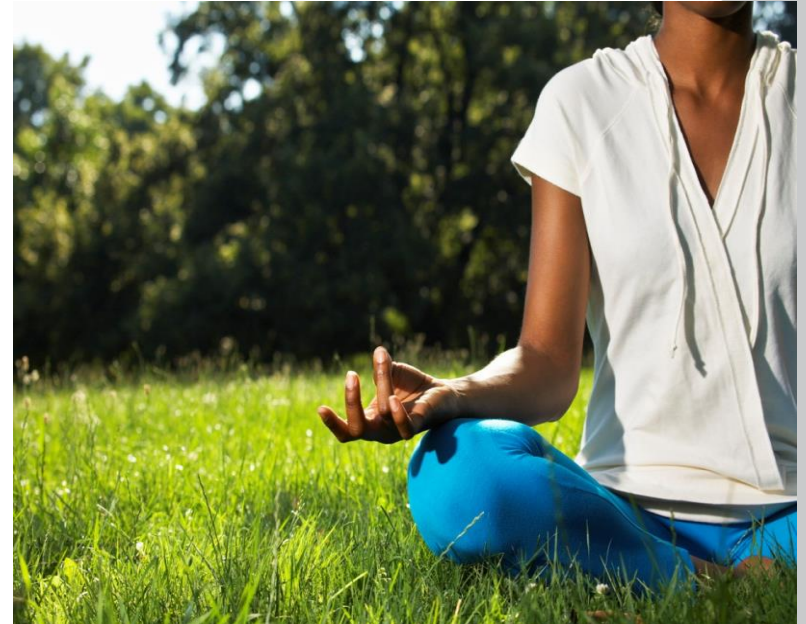
Guided Imagery Study

Purpose

- Examine impact of guided imagery on :
 - Pain
 - Anxiety
 - Medication use

Population:

- Adult inpatients
- Tertiary care hospital



Clinical Questions

- What is the impact of guided imagery on pain scores in adult patients in an acute care facility?
- What is the impact of guided imagery on anxiety in adult patients in an acute care facility?
- What is the impact of guided imagery on analgesic usage in adult patients in an acute care facility?
- What is the impact of guided imagery on anti-anxiolytic usage in adult patients in an acute care facility?

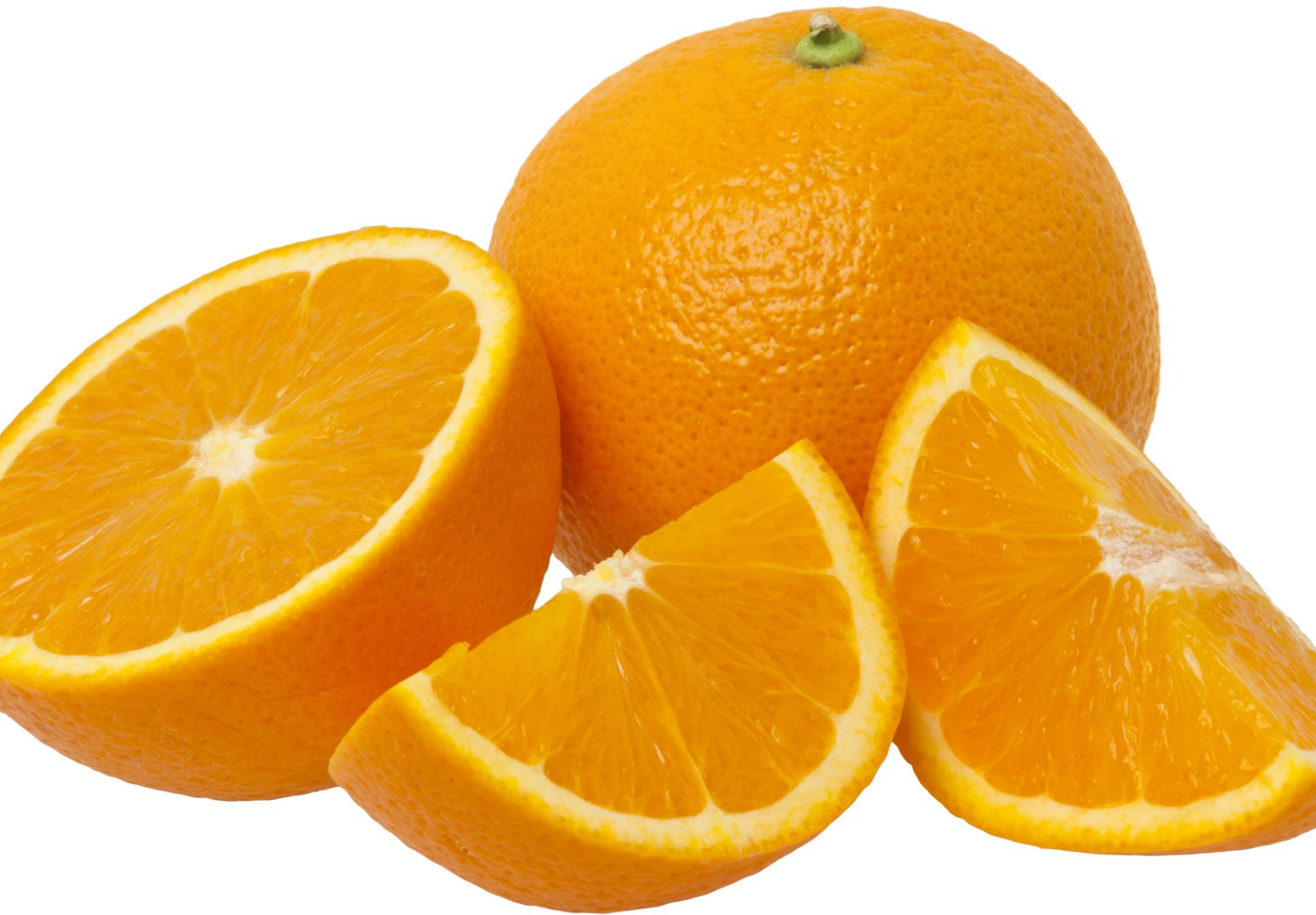


Guided Imagery

Definition

- Purposeful use of the imagination, using words and phrases designed to evoke rich, multisensory fantasy and memory
- Program of directed thoughts and suggestions that guide your imagination toward a relaxed, focused state.
- Guided imagery experience





Guided Imagery in Cancer Pain Management

- Could be beneficial in reducing pain
- Reduced distress, fatigue, & sleep disturbances
- Anxiety was not addressed



Graffam & Johnson, 1987; Syrjala et al., 1995; Kwekkeboom et al., 2008; Kwekkeboom et al., 2010

Guided Imagery in Surgical & Procedural Pain Management

Positive Impact

- Shorter procedure times
- Less analgesic use
- Lower pain scores
- Reduced anxiety
- Reduced length of stay
- Lower pharmacy costs

No Impact

- Pain scores
- Anxiety scores
- Patient satisfaction

Systematic review in cardiac surgery patients

- Mixed findings



Positive Results: Lang, 2000; Halpin et al., 2002; Gonzales et al., 2010; Lin, 2011:
No Impact: Danhauer et al., 2007; Thomas & Sethares, 2010:
Systematic Review: Casida & Lemanski, 2010

Guided Imagery in Chronic Pain Management

Fibromyalgia

- Decrease pain scores; improved functional status; improved self-efficacy in managing pain & other symptoms
- No changes in psychological distress

Osteoarthritis

- Decrease pain scores; increase mobility; decreased OTC & prescription analgesia use

Non Cancer Pain

- Reduced pain & pain disability scores
- No changes in biological markers (plasma cortisol, lymphocyte subset counts & proliferation, & interleukin-1 β)

Guided Imagery in Chronic Pain Management

Pain lasting > 3 months

- Decrease in pain scores, mental stress, & increases in quality of life

Systematic Reviews

- Fibromyalgia: Reduced pain
- Non-musculoskeletal pain: Reduced pain



Menzies & Kim, 2008; Baird et al., 2010; Lewandowski et al., 2011; Chen & Francis, 2010; Bernardy et al., 2011; Posadzki et al., 2012

Subjects

- Hospitalized patients
- 18 years & older
- English speaking
- Males & females
- Any ethnic background
- Medical, surgical, or oncology diagnosis
- Referred to APRN-led pain management program



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Measurement Tools

Self-reported pain scores

- 0 (no pain) to 10 (worst pain)
- $r = 0.91$

Beck Anxiety Inventory

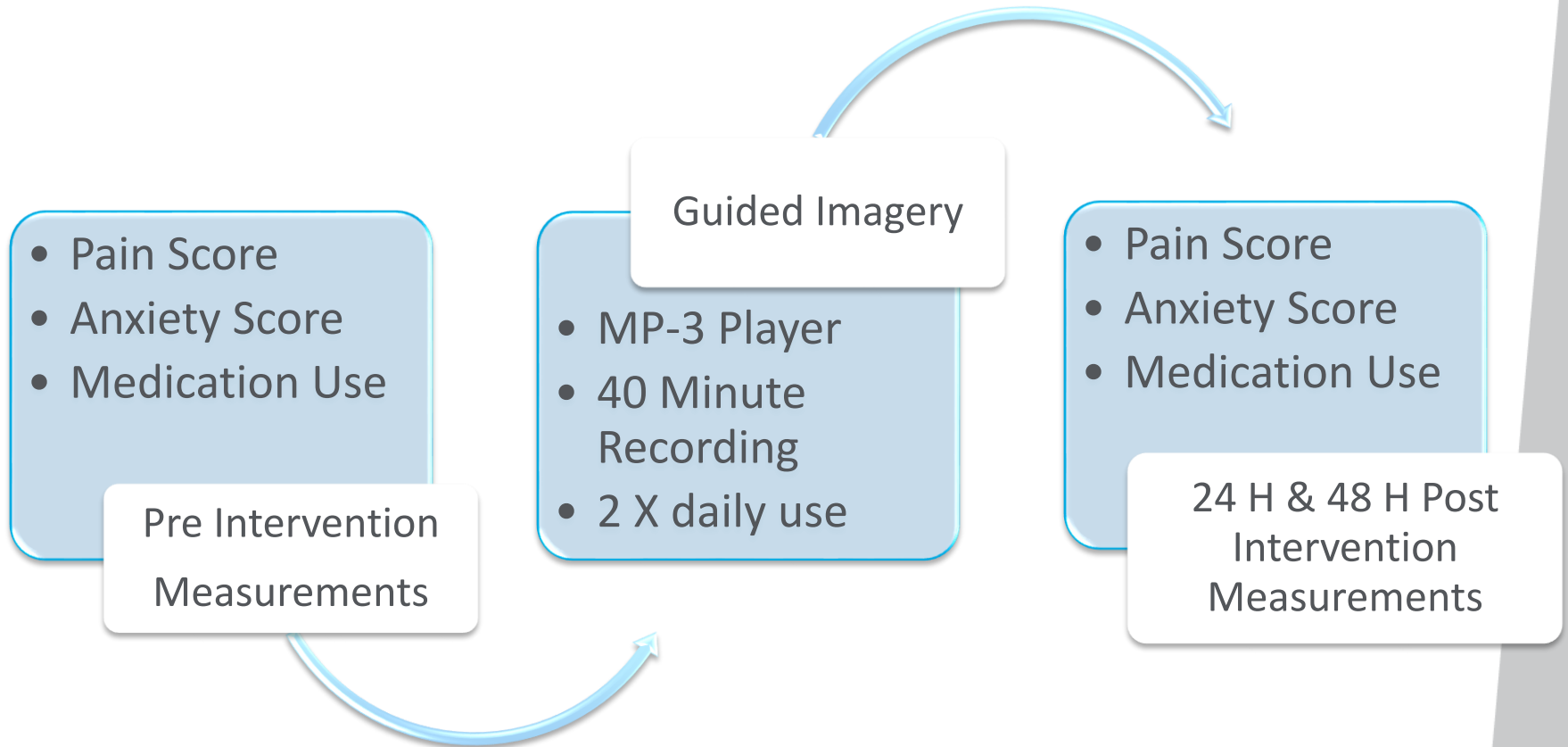
- 4 point Likert scale
- $r = 0.75$

Morphine Equivalent Daily Dose (MEDD)

- Conversion of analgesic dosing to a standard morphine equivalent dose



Intervention



Demographics

Age	Average	52 years (Range: 20 to 88 years)
Gender	Female	53%
	Male	47%
Ethnicity	White	53%
	Black	30%
	Hispanic	17%
Diagnosis	Medicine	69%
	Surgery	25%
	Oncology	6%

N = 36

Results

Time N = 36	Self Reported Pain Score	Beck Anxiety Inventory Score	MEDD
Pre Intervention	6.72	25.81	308
24 Hrs.	6.61	18.47 (p = 0.0001)	259
48 Hrs.	6.36	12.86 (p < 0.0001)	251
% Change from Pre to 48 Hrs.	6% Decrease	50% Decrease	19% Decrease

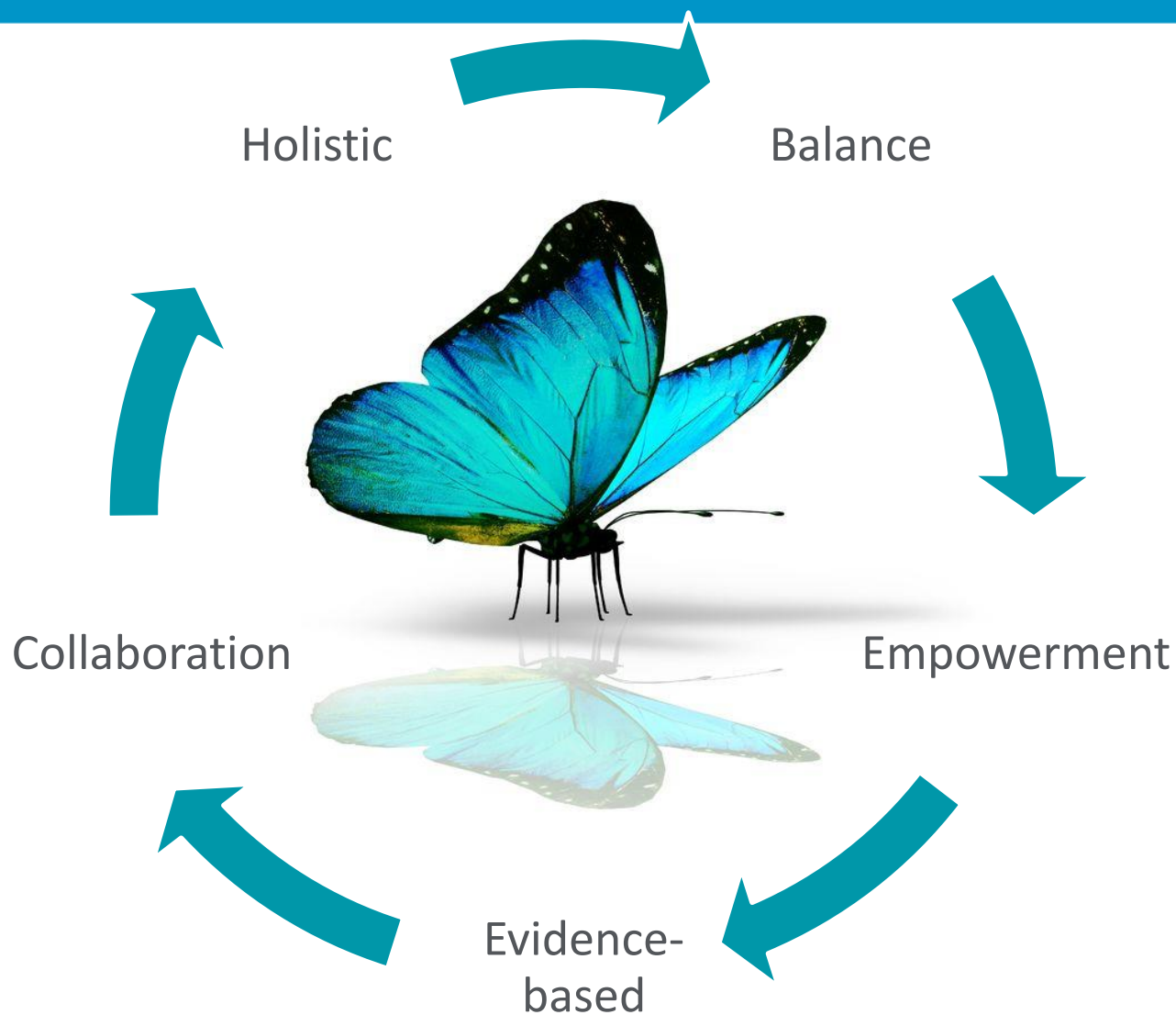
Conclusions

- Statistical significance with anxiety scores
- Statistical significance not seen with the other measures
- Clinical significance seen in pain scores & analgesia use
- Viable CAM approach
- Positive feedback from patients enrolled
- Easy to use



Guided Imagery

Application To Practice



Questions?

Thank you!

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