

## Using guided imagery to reduce pain and anxiety

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**Background:** The Institute of Medicine in 2011 reported over 100 million American adults are affected by chronic pain which is more than the combination of those affected with heart disease, cancer, and diabetes. The report also estimated the United States spends up to \$635 billion each year in medical treatment and lost productivity due to chronic pain. The 2007 National Health Interview Survey reported 38% of American adults use some form of integrative or complementary and alternative medicine (CAM). The National Center for Complementary and Alternative Medicine estimates CAM use accounts for \$33.9 billion total health care expenditures spent out of pocket. Conditions associated with pain are the number one reason adults reported as the reason for using CAM therapies. Research on guided imagery has produced mixed results in its use in pain management.

**Purpose:** The purpose of the project was the creation of an integrative medicine program initially using guided imagery with patients referred to the advanced practice nurse (APN) led pain management service at a tertiary care hospital located in the Texas Medical Center in Houston, TX.

**Materials and Methods:** After receiving Institutional Review Board approval, patients were recruited from the APN-led pain management service. Upon receiving consent, an MP3 player with a guided imagery recording was given to the patient with instructions to use the recording twice daily. Pain and anxiety scores along with analgesic and anti-anxiolytic use were recorded pre-intervention and 24 and 48 hours after enrollment.

**Results:** At the time of abstract submission, thirty-six patients were recruited; 20 enrolled with 18 completing all data collection.

- Pain scores declined by 4% at 24 hours and 48 hour pain score declined 3% from pre-intervention score.
- 27% decline in anxiety scores at 24 hours and 49% decline at 48 hours in anxiety scores were seen when compared to pre-intervention.
- Analgesia use declined 7% at 24 hours and 19% at 48 hours.
- Positive feedback was received from the participants.

### Conclusions:

- Statistical significance was seen with anxiety scores at 24 hours ( $p=0.006$ ) and 48 hours ( $p=0.0002$ ) but not with the other measures due to small sample size.
- Clinical significance was seen with declines at 48 hours in anxiety scores (49%), analgesia use (19%), and pain scores (3%).
- Guided imagery appears to be a viable CAM approach to reduce pain, anxiety, and analgesic use

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