Improving the quality of life of patients with chronic pain: A pilot study

Betty Amuzu, MD 1,2 ; Niraj Nijhawan, MD, MS 3,4 ; Jessica J. F. Kram, MPH 3,4

1Department of Obstetrics and Gynecology; 2Aurora Sinai Medical Center, Milwaukee, WI; 3Department of Anesthesiology; 4Center for Urban Population Health, Milwaukee, WI; 5Aurora University of Wisconsin Medical Group

PROBLEM
Chronic pain (CP) has a high economic impact in increased health care visits, diagnostic tests, procedures, medicines including opioids, and lost productivity. Patients with CP are often crippled with psychological distress, depression, and fear in addition to the pain.

BACKGROUND
- CP is defined as pain present most days of the month for greater than 6 months.
- CP patients develop:
  - Altered pain perception
  - Often have enhanced brain activity in pain-responsive regions
  - Increased anxiety and depression
- Studies have shown that exercise and meditation:
  - Impact pain-reducing brain areas
  - Positively influence pain characteristics
  - Decrease pain perception
  - Improve coping mechanisms
  - Reduce depression and anxiety

OBJECTIVE
Our pilot study attempts to see if introduction of mind/body tools has measurable improvement on quality of life for patients with CP.

METHODS
- We conducted a pilot study on mentally competent adult women with stable CP, who were resistant to conventional therapies.
- Intervention consisted of an initial 8-hour session where baseline assessments were completed and included an introduction to mind/body tools, including:
  - Deep meditation
  - Prayer
  - Service-mindedness
  - Breath work
  - Mindfulness meditation
  - Visualization techniques
- Surveys used for patient self-assessment (at baseline):
  - Pain rating survey
  - Zung self-rating anxiety
  - Zung self-rating depression scales
  - World Health Organization Quality of Life BREF (WHOQOL-BREF)
  - Conner-Davidson Resilience Scale (CD-RISC)
- Following initial 8-hour session, there were 1-hour-long meetings weekly for 8 weeks, followed by bi-weekly meetings for 8 weeks, then monthly.
  - Mind/body tools were systematically taught and reinforced during meetings.
  - Recordings of key concepts were available for use at home.
  - Patients kept a journal detailing their practice.
  - Pain rating survey were filed out monthly. All other surveys were filed out, but were not beneficial as WHOQOL-BREF incorporated all of this.
- Other data was collected from Epic and included medical comorbidities, as well as medication use.

RESULTS
- Women (N=5) were of mean age 43.2 years and BMI 35.8 kg/m2.
  - Initially, a total of 6 women were recruited, with 4 completing the WHOQOL-BREF at 24 months (Figure 1).
  - There was no statistical difference in patients overall quality of life, physical health, psychological health, social relations, and environmental health from baseline to conclusion of the study.
- Mean long acting narcotic (LAN) was 260 morphine equivalents at baseline and now 68 morphine equivalents at 24-month assessments, respectively. Patients did not significantly decrease use of LAN.
- Following 6-month assessment, patients were highly satisfied with their experience. All (100%) strongly agreed that the instructors responded well to questions and established good relationships with participants.

CONCLUSIONS
- Given that this was a pilot study with a small sample size, there were no significant findings or even notable long-term trends in measurable outcomes.
- While narcotic use decreased, patient use may have reduced because of the current changes in regulations and guidelines for narcotic use, perhaps in combination with this program.
- Further studies with greater number of participants will need to be conducted. The WHOQOL-BREF and extraction of medicine use from the chart would be the only assessments we recommend for future studies, as most mental health characteristics are captured in the WHOQOL-BREF.

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