**The Influence of a Cognitive Behavioral Approach in Shoulder Pain Treatment: a Randomized Control Trial**

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**Purpose and Hypothesis:** Despite similar outcomes for surgery and physical therapy (PT), the number of surgeries to treat rotator cuff related shoulder pain (RCRSP) is increasing. Interventions designed to enhance treatment expectations for PT have been shown to improve patient expectations, but no studies have explored whether such interventions influence patient reports of having had surgery, or being scheduled for surgery. The purpose of this randomized clinical trial was to examine the effect of a cognitive behavioral intervention aimed at changing expectations for PT on patient-report of having had or being scheduled for surgery and on the outcomes of PT.

**Number of Subjects:** Fifty-four (54) individuals were enrolled in the trial (25 randomized to PT, 29 randomized to PT + PEERC).

**Methods:** The Patient Engagement, Education, and Restructuring of Cognitions (PEERC) intervention, was designed to change expectations regarding PT. PEERC was evaluated in a randomized, pragmatic “add-on” trial in by randomizing patients with RCRSP to receive either PT intervention alone (PT) or PT + PEERC. Outcomes assessed at enrollment, 6 weeks, discharge, and six months after discharge included the patient report of having had surgery, or being scheduled for surgery (primary) and satisfaction with PT outcome, pain, and function (secondary outcomes).

**Results:** The average age was 51.81; SD=12.54, and 63% were female. Chronicity of shoulder pain averaged 174.61 days; SD=179.58. At baseline, 70% of individuals either disagreed or strongly disagreed with the statement that they were interested in having surgery for their current condition. Study results showed that at the time of six months follow up, three (12%) of the participants in the PT alone group and one (3.4%) in the PT+PEERC group reported have had surgery or being scheduled for surgery (p=.32). There were no significant differences between groups on measures of satisfaction with the outcome of PT (p=.08), pain (p=.58) or function (p=.82).

**Conclusions:** In patients with RCRSP, PT plus a cognitive behavioral intervention aimed at changing expectations for PT provided no additional benefit compared to PT alone with regard to patient report of having had surgery, or being scheduled to have surgery, patient reported treatment satisfaction with the outcome of PT, or improvements in pain, or function.

**Clinical Relevance:** It is difficult to advocate for PEERC adding value to PT alone in the management of RCRSP for individuals matching the characteristics of the patients enrolled in this trial (i.e. with high expectations of physical therapy). Future work in patient populations that are screened for high levels of surgical interest, with higher levels of pain associated distress, and/or poor expectations with physical therapy would be necessary to fully evaluate the potential value of PEERC.

**Keywords:** Rotator Cuff, Shoulder, Cognitive Behavioral Therapy, Expectations

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