



How is Post-Traumatic Stress Disorder in a Chronic Pelvic Pain Population Associated with Altered Surgical Outcome?

Yunker A, Zolnoun D, Leserman J, Steege J

Division of Advanced Laparoscopy and Pelvic Pain, Department of Obstetrics and Gynecology, University of North Carolina at Chapel Hill School of Medicine



BACKGROUND

The link between post-traumatic stress disorder (PTSD) and chronic pain conditions, specifically pelvic pain, has long been established. Within a chronic pelvic pain (CPP) population, the prevalence of PTSD is 31%, compared with 10% of women in the general population. In this group, the diagnosis of PTSD is usually associated with exposure to sexual and physical abuse. CPP is known to be a difficult diagnosis, in that many patients are refractory to treatment or suffer relapses. Meanwhile, PTSD alone is associated with overall poorer health outcomes. However, there is limited information on how pre-existing PTSD affects CPP in regards to treatment outcomes and disease trajectory.

OBJECTIVE

To determine if a diagnosis of PTSD is associated with differences in long-term pain outcomes among a CPP population treated with surgery.

METHODS

New pelvic pain patients seen at the UNC Pelvic Pain Clinic between 2003 and 2006 were approached for participation in our study. They were asked to complete a baseline and interval questionnaires assessing pain severity and psychological distress. Of the original cohort of 310 women who completed baseline and at least one follow-up questionnaire, 75 (24%) underwent a surgical treatment for pelvic pain. The primary outcome was an overall pelvic pain score (0-5), measured at baseline, 3 months, 6 months, 9 months, and 12 months. The main exposure was a diagnosis of PTSD, derived from baseline answers to the SPAN questions (acronyms for symptoms of Startle, Physiologic arousal, Anger, and emotional Numbness). Univariate, bivariate, and multivariate analyses were performed to look for relationships among changes in pain score over time and PTSD diagnosis (using STATA v. 10, College Station, TX). Included in the analyses were background characteristics and other treatment modalities.

RESULTS

Table 1: Baseline Characteristics

| | PTSD (mean or %) | Non-PTSD (mean or %) | p-value |
|-------------------|------------------|----------------------|---------|
| Age | 35 | 33 | 0.344 |
| Race (% white) | 70% | 80% | 0.360 |
| Education (years) | 14 | 15 | 0.784 |
| Married | 75% | 65% | 0.433 |

Table 2: Treatments

| | PTSD (%) | Non-PTSD (%) | p-value |
|-------------------------|----------|--------------|---------|
| Hysterectomy | 30 | 27 | 0.816 |
| Adnexectomy | 30 | 24 | 0.575 |
| Pain medications | 25 | 22 | 0.771 |
| Neurotropic medications | 20 | 16 | 0.713 |
| Hormonal suppression | 5 | 20 | 0.117 |
| Physical therapy | 21 | 33 | 0.337 |

Of the 75 patients, 20 (27%) met criteria for the diagnosis of PTSD. Table 1 shows baseline characteristics between PTSD and non-PTSD patients. There is no statistically significant difference between the groups in baseline characteristics or type of therapy (Table 2). Not surprising, there is an association between PTSD and history of abuse (Figure 1). Bivariate analysis showed age, education, marital status, hysterectomy, treatment with pain medications, neurotropic drugs, hormone suppression, and physical therapy to be associated with differences in pain control at some point in the year of follow-up. Mean pain scores (Figure 2, on a scale from 0 to 5) for PTSD and non-PTSD patients were 3.2 vs. 2.9 (baseline, p=0.40), 2.1 vs. 2.1 (3 months, p=0.97), 2.2 vs. 1.5 (6 months, p=0.04), and 2.0 vs. 1.6 (9 months, p=0.32), and 1.7 vs. 1.5 (12 months, p=0.59), respectively. The overall rate of improvement in pain scores among the two groups, when adjusted for type of surgery, baseline characteristics, and medications prescribed, was not statistically significant (p=0.79).

Figure 2: Mean pain scores for PTSD and non-PTSD patients over time.

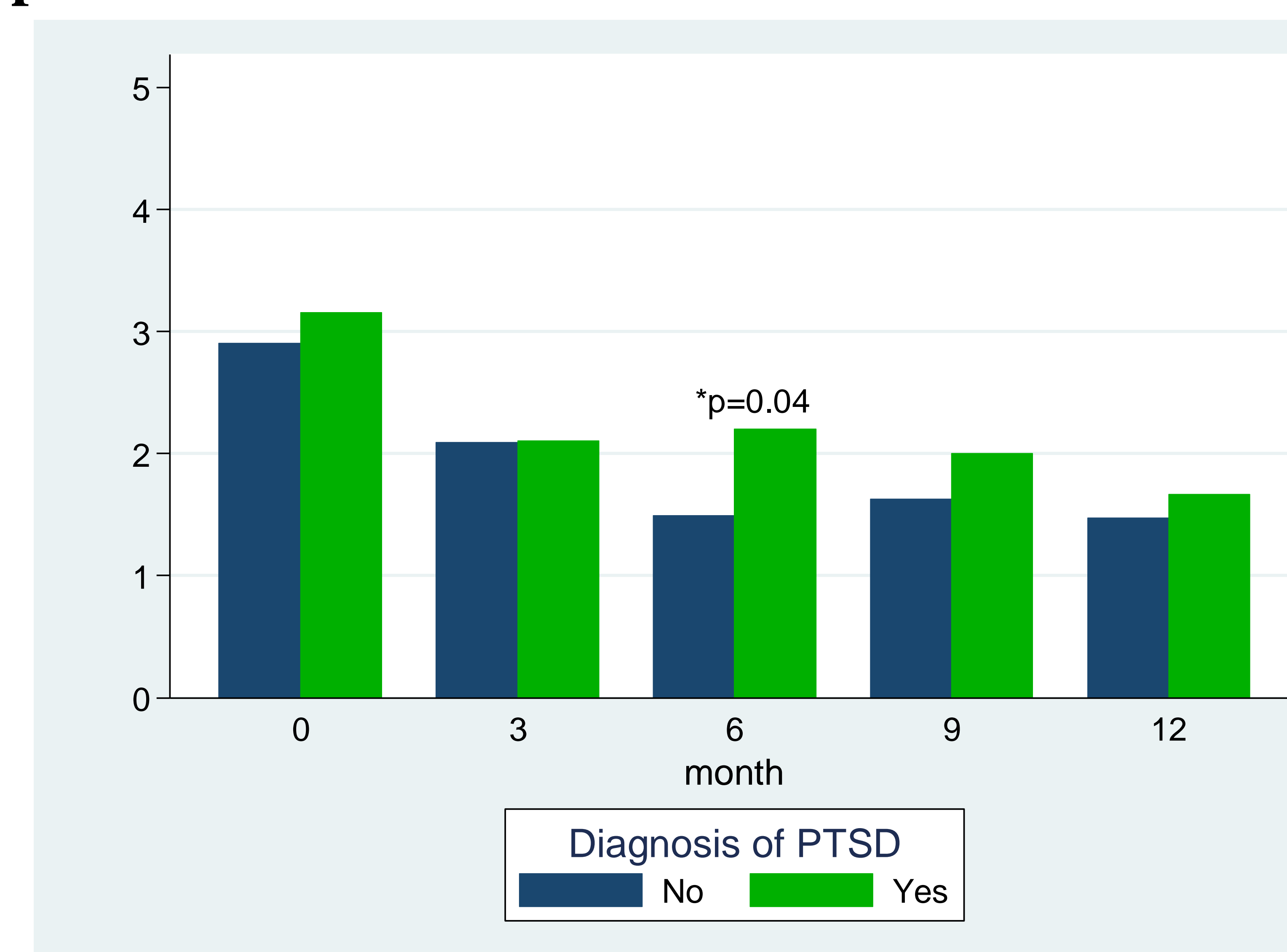
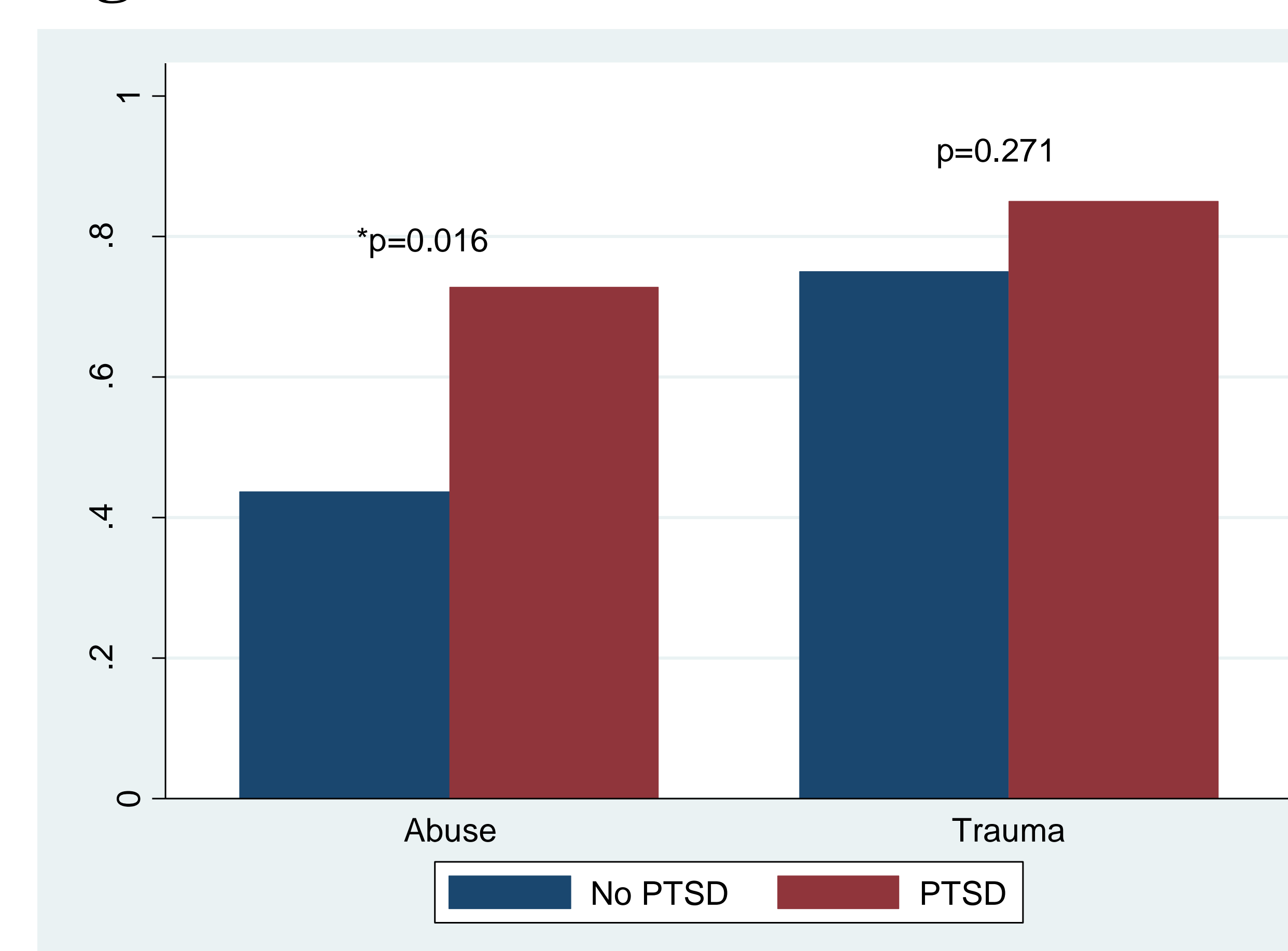


Figure 1: Abuse and Trauma



CONCLUSION

In patients undergoing a surgical procedure for a chronic pelvic pain diagnosis, PTSD does not significantly affect improvement in pain scores. Although there was a statistically significant difference at 6 months, this had leveled out by 12 months. Patients with PTSD who have a pelvic pain that is surgically treatable have an equal chance of improvement compared to patients without PTSD.