

Background

Preoperative anxiety and pain catastrophizing have been associated with more postoperative pain in adults (1,2). These factors have also been implicated in children although the data is limited (3). The effect of parental attitude on postoperative pain in children is unclear.

Methods

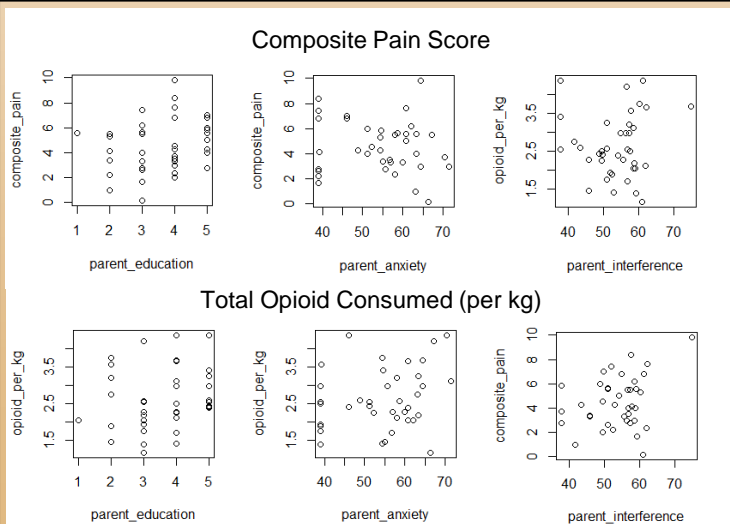
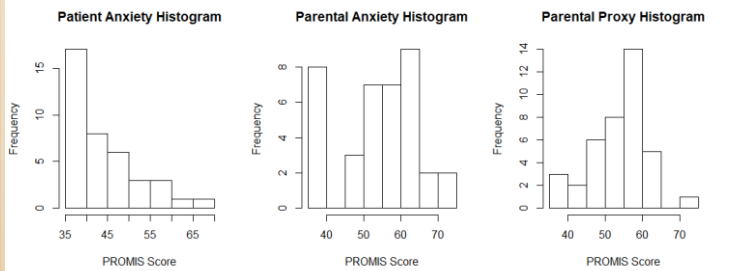
We performed a secondary analysis of a randomized controlled trial studying the effective methadone dose for ASA I or II patients aged 11-18 undergoing posterior spinal fusion for idiopathic scoliosis. Patient and parental psychological risk factors were quantified via PROMIS questionnaires. All hospital opioid use was measured. A numerical pain rating scale was recorded daily.

Demographics

- * Age: mean 14.27, st. dev 1.76
- * Gender: Female 25, Male 14
- * Race: Caucasian 34, African Am. 4, Asian 1
- * Length of Stay: mean 4.65, st. dev 1.16

References

1. Bierke, S, et al. Influence of anxiety and pain catastrophizing on the course of pain within the first year after uncomplicated total knee replacement: a prospective study. Arch Orthop Trauma Surg. 2017 Sep 30; 2. Kulkarni AR, et al. Factors Associated with Acute Postoperative Pain Following Breast Reconstruction. JPRAS Open. 2017 Mar; 3. Pagé MG, et al. Pain-related psychological correlates of pediatric acute post-surgical pain. J Pain Res. 2012;5:547-58



Results

* 39 patients/parents were surveyed over 23 months.

	Opioid Consumed (per kg)	Composite Pain Score
Patient Anxiety	No trend	No trend
Parent Anxiety	Positive trend (0.15 mg/kg morph. equiv. per stand dev., p=0.27)	Negative trend (0.3 NRS per stand dev., p=0.3)
Parental Interference / Proxy Pain	No trend	Positive trend (0.8 NRS per stand. dev., p=0.1)
Parental Education	Positive trend (0.18 mg/kg morph. Equiv. per stand dev., p=0.15)	Positive trend (0.5 NPS per extra "degree", p = 0.08)

Discussion

- * Conducting a larger scale observational cohort study appears to be feasible using this methodology.
- * Parental anxiety, parental perception of patient pain, and parental education levels may all influence post-op pain scores and total opioid consumed.
- * The sample size required to achieve a statistical power of 0.8 based on correlation coefficient of 0.2 (a modest correlation) and alpha 0.05 is ~200 patients.