SENSITIVITY TO PAIN TRAUMATIZATION MEDIATES THE RELATIONSHIP BETWEEN POSTSURGICAL ACUTE PAIN AND ACUTE PAIN INTERFERENCE AFTER HOSPITAL DISCHARGE

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INTRODUCTION / AIM

The Toronto General Hospital Transitional Pain Service (TPS) targets patients at risk of pain-related problems post-surgically and aims to improve pain, functioning, and reduce opioid use. Since pain is a predictor of pain-interference, the aim of this study was to investigate possible modifiable mediators between these two variables. Five possible mediators were investigated: Depression, anxiety, pain catastrophizing, sensitivity to pain traumatization (SPTS) and smoking pack-years.

METHODS

Pain (0-10 NRS), pain interference (BPI), depression and anxiety (HADS) and Sensitivity to Pain Traumatization (SPTS) were collected during the first outpatient TPS visit. Pre-surgical smoking pack-years was abstracted from patient records. Mediation was assessed using Baron and Kenny criteria, and final mediation models used bootstrapping to measure indirect effects. Due to high multicollinearity and missing data, mediators were evaluated individually.

RESULTS

Smoking and pain catastrophizing were eliminated as potential mediators; smoking failed to meet the mediator criteria while catastrophizing did not reach significance in a mediation model. Depression (p=0.014), anxiety (p=0.014) and SPTS (p=0.008) were each found to partially mediate the relationships between pain and pain interference. Model comparisons indicate that SPTS was the strongest partial mediator with an indirect effect of 0.18 compared to 0.08 for anxiety and 0.08 for depression.

DISCUSSION / CONCLUSIONS

SPTS was the strongest mediator between pain and pain-related interference among four other possible mediators. Depression and anxiety were also found to mediate this relationship. Each variable is a potential modifiable target that might reduce pain interference in this population at high risk of developing chronic postsurgical pain.

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