Impact of Pre-Operative Pain Catastrophizing Scores on Post-Operative Opioid Consumption and Satisfaction

Divyaam Satija, BS; Savannah Renshaw, MPH, MPA; Benjamin Poulose, MD, MPH, FACS;
The Ohio State University Wexner Medical Center

THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER

Introduction

- Pain Catastrophizing Scale (PCS): A tool to assess negative thoughts about pain.
- PCS has been linked to post-operative outcomes, but its impact on opioid use and satisfaction in general surgery is unclear.
- Understanding this relationship can help tailor pain management strategies.

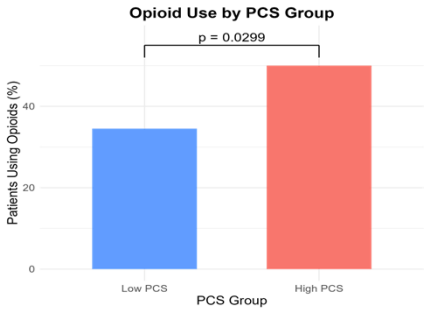
Objectives

- To evaluate if there is a relationship between pre-operative PCS scores and:
  - Opioid use (primary outcome)
  - Patient satisfaction (secondary outcome)

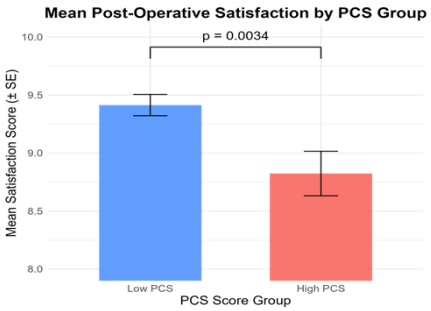
Methods

- Prospective, single-center study (2021-2024)
- Patients: Adults (>18) undergoing ambulatory general surgery.
- Exclusions: Opioid users, immunocompromised, NSAID/acetaminophen allergy
- PCS scores dichotomized into high vs. low (based on median).
- Statistical analysis:
  - Logistic regression: PCS – opioid use (adjusted for confounders)
  - Linear regression PCS – patient satisfaction (Scale 1-10).

Results



Results



Independent Variables	Dependent Variables	
	Opioid Use (Logistic Regression)	Satisfaction Score (Linear Regression)
High PCS Score	**0.708**	**-0.741**
Age	-0.019	-0.006
Female	0.116	-0.311
Black Race	0.121	-0.070
Other Race	-0.290	-0.096
Hernia Repair	0.480	0.333
Colectomy	-0.201	0.088
Regional Anesthesia	-0.091	**0.571**
Operative Field Block	0.949	-0.489
Constant	-1.473	**10.249**

Bold = p<0.05

Conclusions

- High pre-operative PCS scores were found to be independently associated with increased post-operative opioid use, with affected patients being twice as likely to require opioid rescue pills.
- Higher PCS scores correlated with significantly lower patient satisfaction as well, emphasizing the impact of psychological factors on post-operative recovery.
- Incorporating PCS screening into pre-operative assessments could help identify at-risk patients and guide pain management strategies.
- Targeted interventions, such as pre-operative counselling and multimodal analgesia, may reduce opioid reliance and improve patient outcomes.
- Future research should explore whether modifying pain catastrophizing pre-operatively leads to better surgical recovery and patient satisfaction.

References

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- Ikemoto, T. et al. A systematic review of cross-cultural validation of the Pain Catastrophizing Scale. Eur. J. Pain 24, 1228–1241 (2020).