

To Educate or To Sedate: Personalizing preprocedural sedation for patients receiving a preoperative nerve block

Patrick Collins, BS, Sheila Gokul, MD, Jenna M. Wilson, PhD, Martin Kiik, MBBS, Philipp Lirk, MD, PhD, Kamen Vlassakov, MD, Kristin Schreiber, MD, PhD, Yun-Yun K. Chen, MD

Department of Anesthesiology, Perioperative and Pain Medicine, Brigham and Women's Hospital
Harvard Medical School; Boston, MA



Introduction

- Regional anesthesia is a crucial and versatile tool that can serve as the primary anesthetic and/or as part of a multimodal postoperative pain regimen for patients undergoing surgery.
- Pain catastrophizing is associated with higher pain sensitivity after procedure.
- Pain catastrophizing may affect a patient's experience with a procedure such as a nerve block.

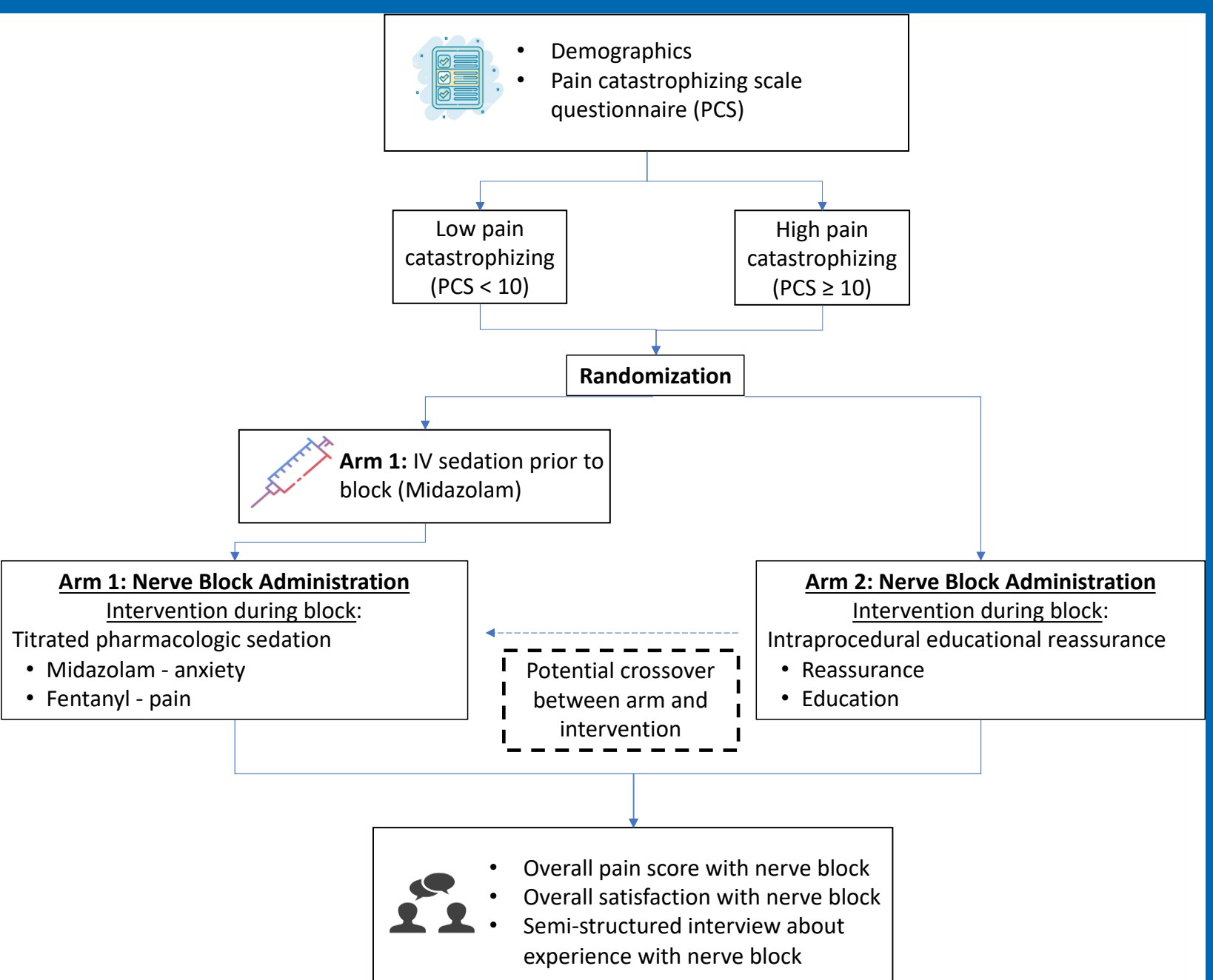


Figure 1. Catastrophizing about Pain

Aims

To investigate the relative effectiveness of titrated sedation vs intraprocedural education and reassurance on pain and satisfaction during nerve block placement among patients with different levels of pain catastrophizing

Methodology



Results

Table 1. Demographics	High catastrophizing	Low catastrophizing
Number of subjects (n)	20	22
Age (mean ± SD)	61.7±11.7	64.7±10.3
Gender		
Male	10	15
Female	9	7
Non-binary	1	0
Sedation	10	11
Education and Reassurance	10	11
PCS score (mean ± SD)	17.0±5.7	4.5±2.4
ASA status		
II	9	8
III	10	13
IV	1	1
Type of nerve blocks*		
Upper extremity		
Interscalene	0	3
Supraclavicular	3	5
Axillary	1	4
Intercostobrachial	2	7
Lower extremity		
Adductor canal/saphenous	14	10
Sciatic at the popliteal-fossa	2	0
IPACK	2	2
Femoral	2	0
LFCN	1	0
Type of surgery		
Orthopedic	16	13
Plastics	2	7
Vascular	2	2

Results

Figure 2. Sedation was associated with significantly less pain in patients with high baseline pain catastrophizing

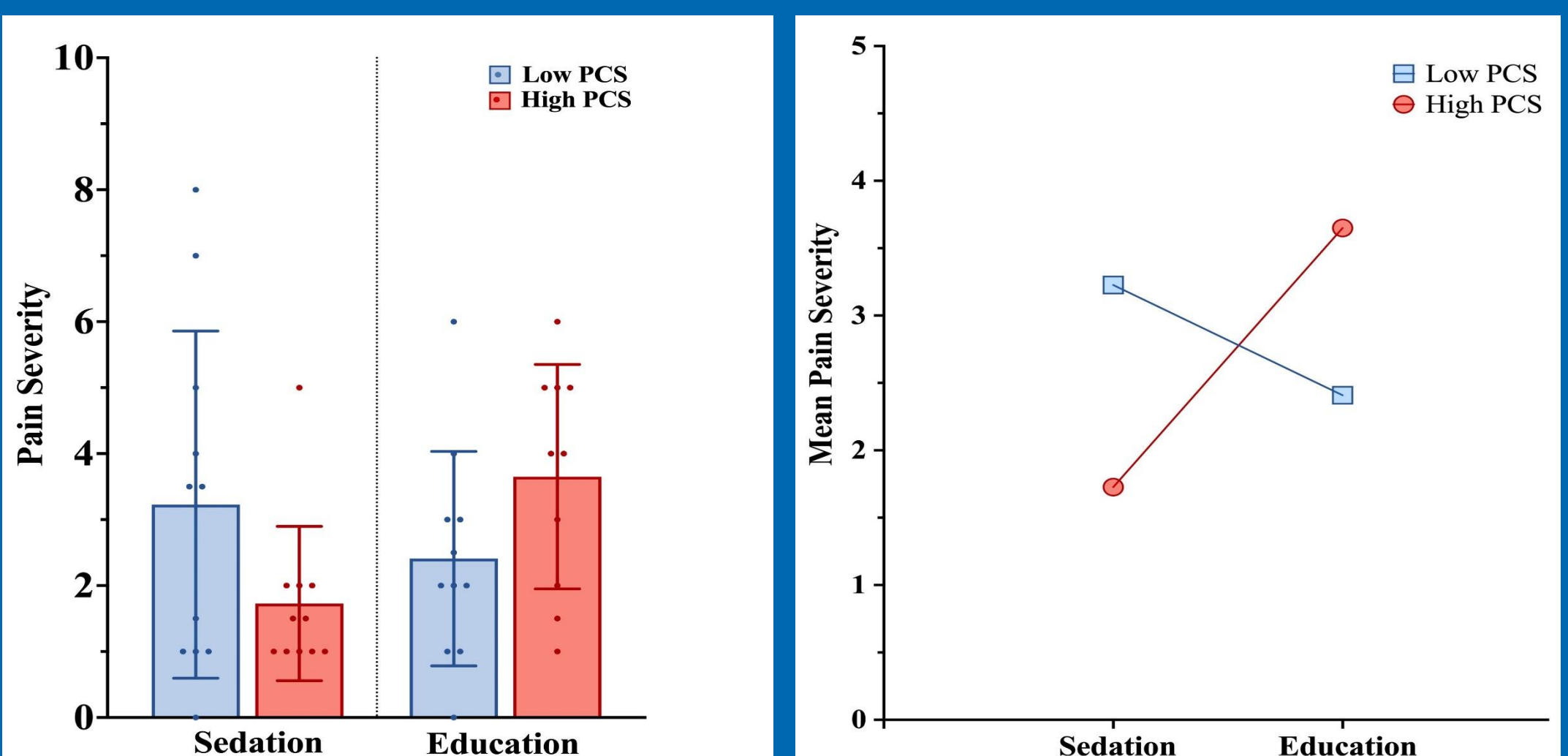
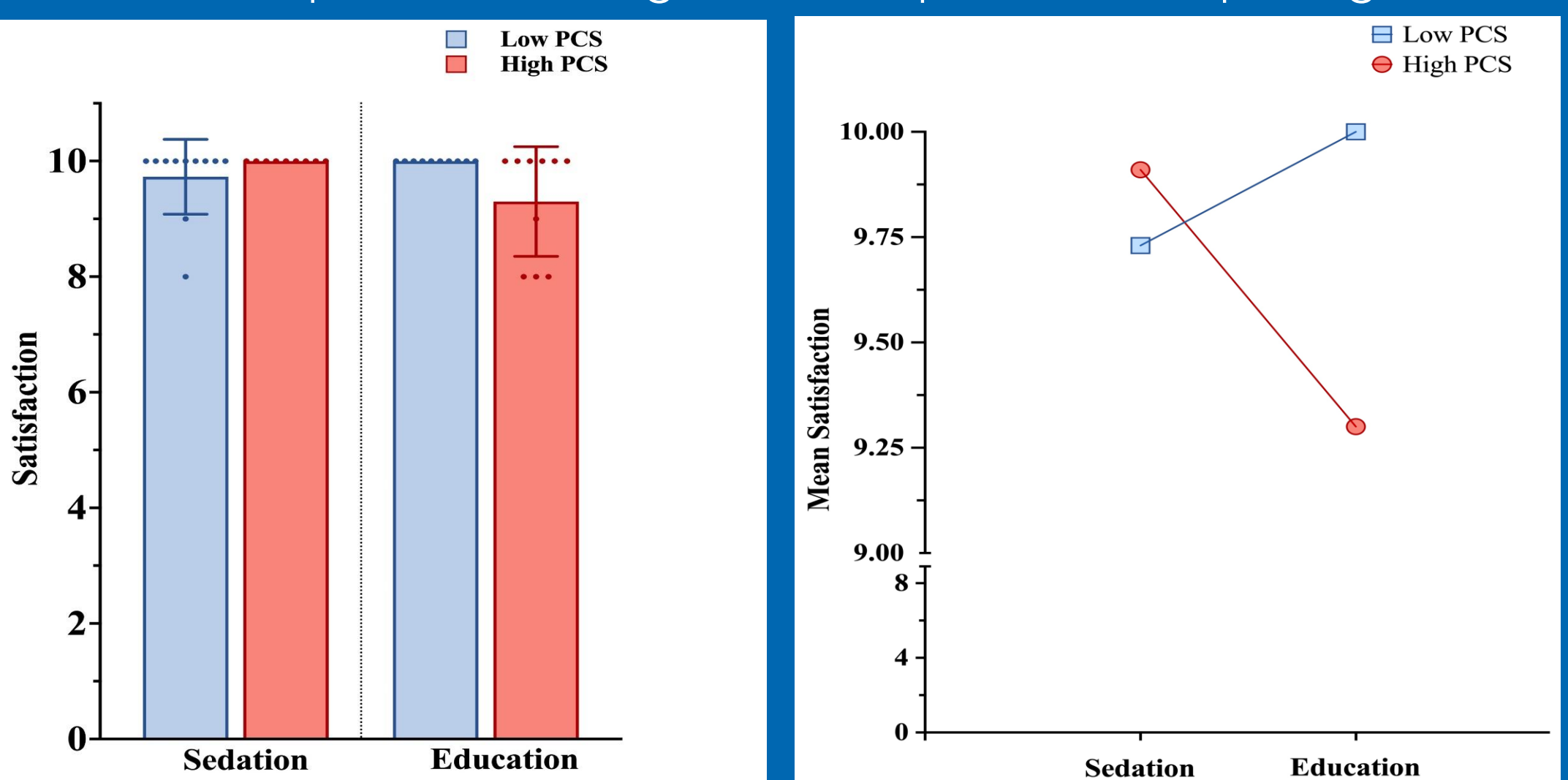


Figure 3. Sedation was associated with significantly higher satisfaction in patients with high baseline pain catastrophizing



Conclusions

- Sedation may be more beneficial for pain management and patient satisfaction among patients with higher levels of baseline pain catastrophizing
- Patients with lower levels of pain catastrophizing trended towards education being more beneficial, although this did not reach statistical significance
- Patients reveal an overall positive experience with a nerve block procedure due to their experience with anesthesia staff, little to no pain during the nerve block, and block success perioperatively

References

- Edwards RR, Smith MT, Stonerock G, Haythornthwaite JA. Pain-related catastrophizing in healthy women is associated with greater temporal summation of and reduced habituation to thermal pain. Clin J Pain. 2006;22(8):730-737.
- Sullivan MJL, Bishop SR, Pivik J. The Pain Catastrophizing Scale: Development and validation. Psychol Assess. 1995;7(4):524-532.

Figure 4. Qualitative themes of patient's experience with nerve block, which was overall positive

