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Opioid Alternative Medications: CRNA Beliefs, Opinions, and Practices

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Abstract

Background: With an opioid epidemic encompassing the nation for the past two decades, the U.S. now consumes approximately 80% of the world's supply of opioids. Opioids are powerful pain medications that have significant side effects. Opioid alternative administration can treat analgesia and limit opioid administration.

Objectives: The purpose of this study was to examine and describe CRNAs' beliefs, opinions, and practices on administering opioid medications versus opioid alternative strategies to treat intraoperative pain.

Method: A qualitative, survey study design using semi-structured interviews was conducted. Twelve CRNAs were interviewed and audio recorded discussing their perspectives and opinions on administering opioid alternatives. The primary investigator (PI) and committee determined the study eligibility criteria for study participants based on the following inclusion and exclusion criteria:

Inclusion: CRNA with three years of current working experience

Exclusion: Student registered nurse anesthetist (SRNA) and CRNAs with less than 3 years of work experience. The interview questions created were used as a guide and focused on a CRNA's work experience, experience with ERAS protocols, and experience with opioid alternative pain strategies. The audio recordings were transcribed word for word using Rev professional transcription company and secondary verified by a committee member. The audio recordings were transcribed, they were coded by the primary investigator and two committee members using NVivo transcribing software and double-checked for accuracy.

Results: Two themes were established: barriers and promoting factors with each theme containing sub themes. The subthemes under barriers included: opioid superiority (83%), inconsistent analgesia effects of opioid alternatives (83%), limited experience with opioid alternatives (58%), limited opioid alternative resources (42%), negative experiences with alternative administration (66%), and patient comorbidities (100%). Subthemes under promoting factors included: avoiding adverse effects of opioids (92%), institutional policies (50%), positive experiences with alternative administration (100%), and regional superiority (100%).

Conclusion: Understanding the barriers and promoting factors to opioid alternative administration can be useful to enhance its usage. Larger studies and/or surveys are needed to assess greater sample sizes to further validate the current data.

Keywords: anesthesia, opioids, perceptions, barriers, multimodal strategies, nurse anesthetist, providers

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References:

Alawadi, Z. M., Leal, I., Phatak, U. R., Flores-Gonzalez, J. R., Holihan, J. L., Karanjawala, B. E., ... & Kao, L. S. (2016). Facilitators and barriers of implementing enhanced recovery in colorectal surgery at a safety net hospital: A provider and patient perspective. *Surgery, 159*(3), 700-712. <https://doi.org/10.1016/j.surg.2015.08.025>

American Association of Nurse Anesthetists. (May 9, 2018). AANA Updates: AANA Calls on Healthcare Community to Use Opioid-Sparing Pain Management to Prevent Addiction and Abuse. Retrieved May 16, 2108 from <https://www.aana.com/home/aana-updates/2018/05/09/aana-calls-on-healthcare-community-to-use-opioid-sparing-pain-management-to-prevent-addiction-and-abuse>.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191-215.

Bandura, A. (1989). Human agency in social cognitive theory. *The American Psychologist, 44*(9), 1175-1184.

Evans, C. (2013). Making sense of assessment feedback in higher education. *Review of educational research, 83*(1), 70-120.

Faircloth, A. C., Dubovoy, A., Biddle, C., Dodd-McCue, D., & Butterworth, J. F. (2016). CME Article: Perceptions of Acupuncture and Acupressure by Anesthesia Providers: A Quantitative Descriptive Study. *Medical Acupuncture, 28*(2), 79-86. Doi:10.1089/acu.2015.1161

Gotlib Conn, L. G., McKenzie, M., Pearsall, E. A., & McLeod, R. S. (2015). Successful implementation of an enhanced recovery after surgery programme for elective colorectal surgery: A process evaluation of champions' experiences. *Implementation Science, 10*(1), 99. <https://doi-org.ezproxy.depaul.edu/10.1186/s13012-015-0289-y>

Hanna, A., Grant, M. C., Hobson, D. B., Benson, A., Gearhart, S. L., Efron, J. E., ... Wick, E. C. (2016). Does your team matter? A social network analysis of Enhanced Recovery after Surgery. *Journal of the American College of Surgeons, 223*(4), S30-S31.

Härkänen, L., Halonen, J., Selander, T., & Kokki, H. (2015). Beta-adrenergic antagonists during general anesthesia reduced postoperative pain: A systematic review and a meta-analysis of randomized controlled trials. *Journal of Anesthesia, 29*(6), 934-943. <https://doi-org.ezproxy.depaul.edu/10.1007/s00540-015-2041-9>

Hughes, M., Coolson, M. M. E., Aahlin, E. K., Harrison, E. M., Dejong, S. M. C., Lassen, K., & Wigmore, S. J. (2014). Attitudes of patients and care providers to enhanced recovery after surgery programs following major abdominal surgery. *Enhanced perioperative care in liver and pancreatic surgery, 187*.

International Business Machines. (2018). *SPSS version 24*. Retrieved on April 26, 2018, from <https://www.ibm.com/products/spss-statistics>

Lyon, A., Solomon, M. J., & Harrison, J. D. (2014). A qualitative study assessing the barriers to implementation of enhanced recovery after surgery. *World Journal of Surgery*, 38(6), 1374-1380. <https://doi-org.ezproxy.depaul.edu/10.1007/s00268-013-2441-7>

Mansour MA, Mahmoud AA, Geddawy M. (2013). Nonopioid versus opioid based general anesthesia technique for bariatric surgery: a randomized double-blind study. *Saudi Journal of Anaesthesia*, 7(4), 387–391. <https://doi.org/10.4103/1658-354X.121045>

Mędrzycka-Dąbrowska, W., Dąbrowski, S., Gutysz-Wojnicka, A., & Basiński, A. (2016). Polish nurses' perceived barriers in using evidence-based practice in pain management. *International Nursing Review*, 63(3), 316-327. <https://doi-org.ezproxy.depaul.edu/10.1111/inr.12255>

Page, A. J., Gani, F., Crowley, K. T., Lee, K. H. K., Grant, M. C., Zavadsky, T. L., ... & Pawlik, T. M. (2016). Patient outcomes and provider perceptions following implementation of a standardized perioperative care pathway for open liver resection. *British Journal of Surgery*, 103(5), 564-571. <https://doi.org/10.1002/bjs.10087>

Paton, F., Chambers, D., Wilson, P., Eastwood, A., Craig, D., Fox, D., ... & McGinnes, E. (2014). Effectiveness and implementation of enhanced recovery after surgery programmes: A rapid evidence synthesis. *BMJ Open*, 4(7), e005015. <http://dx.doi.org/10.1136/bmjopen-2014-005015>

Prabhakar, A., Cefalu, J. N., Rowe, J. S., Kaye, A. D., & Urman, R. D. (2017). Techniques to optimize multimodal analgesia in ambulatory surgery. *Current Pain and Headache Reports*, 21(5), 24. <https://doi-org.ezproxy.depaul.edu/10.1007/s11916-017-0622-z>

Sinha, A., Jayaraman, L., & Punhani, D. (2013). Efficacy of ultrasound-guided transversus abdominis plane block after laparoscopic bariatric surgery: A double blind, randomized, controlled study. *Obesity Surgery*, 23(4), 548–553. <https://doi.org/10.1007/s11695-012-0819-5>

Stone, A. B., Wick, E. C., Wu, C. L., & Grant, M. C. (2017). The US opioid crisis: A role for enhanced recovery after surgery. *Anesthesia & Analgesia*, 125(5), 1803-1805. DOI: 10.1213/ANE.0000000000002236

U.S. Department of Health and Human Services. (2017). *Opioids: The prescription drug & heroin overdose epidemic*. Retrieved February 10, 2017, from <https://www.hhs.gov/opioids/>

Wu, C. L., Benson, A. R., Hobson, D. B., Roda, C. P., Demski, R., Galante, D. J., ... & Wick, E. C. (2015). Initiating an enhanced recovery pathway program: An anesthesiology department's perspective. *The Joint Commission Journal on Quality and Patient Safety*, 41(10), 447-456.

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Conclusion: Understanding the barriers and promoting factors to opioid alternative administration can be useful to enhance its usage.

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Author Summary: Speaking was done for CRNA/DNP program at NorthShore University and DePaul University. Public speaking for defense of DNP project titled "Opioid Alternative Medications: CRNA Beliefs, Opinions, and Practices"