

Implementation of Multimedia Educational Tools to Increase Patient Willingness to Disclose Medical Marijuana Use to Anesthesia Providers

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Background

- 36 states and 4 territories have approved marijuana for specified medical use with valid prescriptions (Echeverria-Villalobos et al., 2019).
- Physiologic changes associated with medicinal marijuana use place patients at increased risk for complications throughout the perioperative period (Echeverria-Villalobos et al., 2019).
- Patient reports of marijuana use to anesthesia providers are inconsistent and increase the risk of adverse events during surgery (Boehnke et al., 2021).
- Research supports the use of multimedia educational tools as an effective way to educate patients on health-related topics related to various disease processes (Fahimi et al., 2020; Greene et al., 2017; Hsueh et al., 2014).
- **PICO:** In patients who use medical marijuana, will the use of multimedia educational tools about the anesthetic implications of marijuana increase their willingness to disclose marijuana use to anesthesia providers?

Objective

- After viewing the multimedia educational tools, patients will be more willing to disclose medical marijuana use to anesthesia providers prior to receiving anesthesia.

Methodology

- Literature search utilized EBSCOhost, CINAHL, PubMed, WorldCat Discovery, & Google Scholar.
- Keywords included "multimedia tools," "multimedia learning," "patient education," "patient learning," "understanding," "education," "patient outcomes," "surgery," & "marijuana use."
- A total of 1,651 articles were found.
- 4 RCTs & 1 systematic review were used for background research.
- Re-AIM framework utilized for development of multimedia educational tools.

Recommendations for Practice

Multimedia educational tools including general information about the procedure and anesthesia required should be incorporated into preoperative patient education.

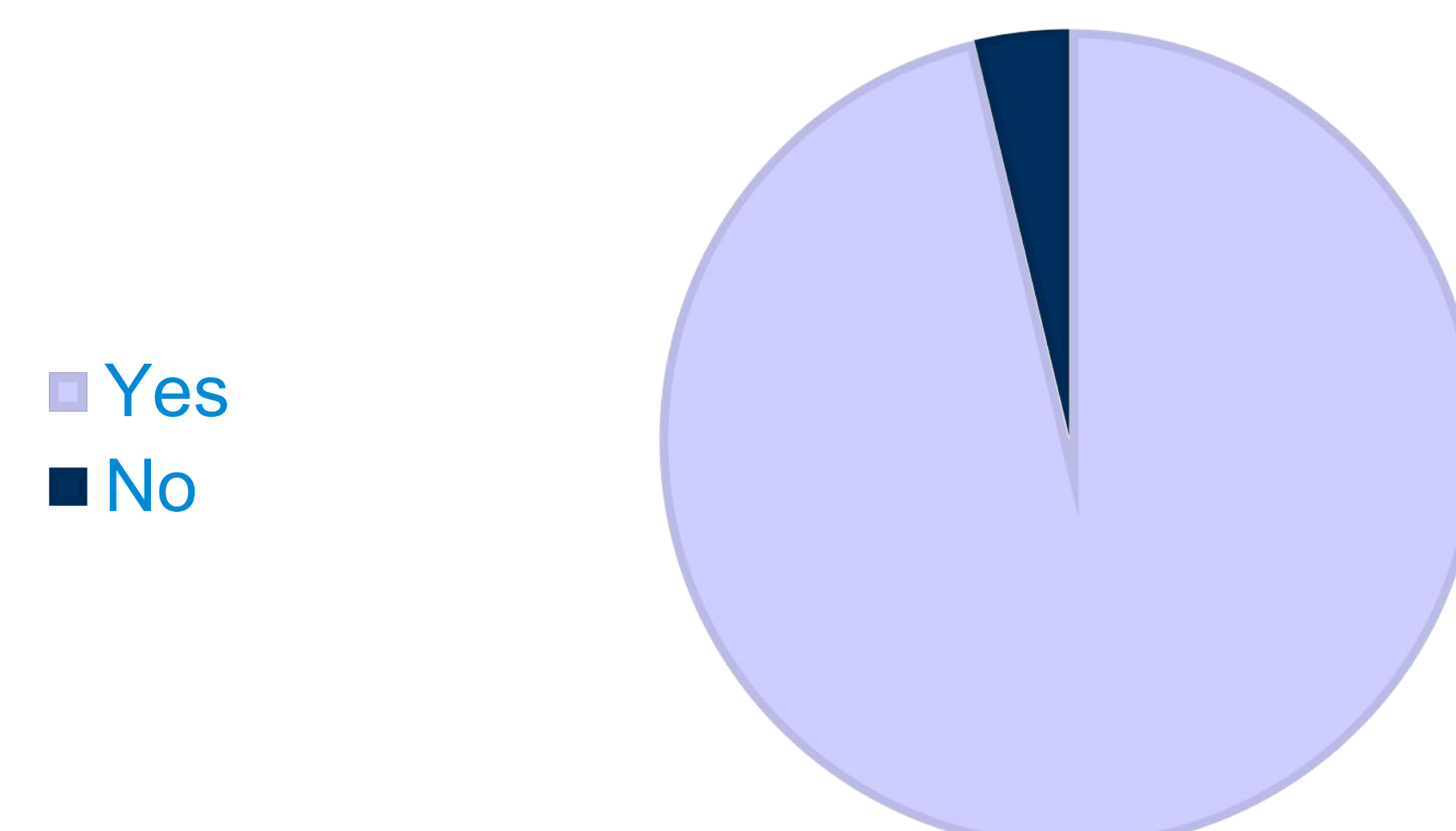
Anesthesia providers should encourage open communication with patients around the topic of marijuana use, while informing patients of the potential risks associated with marijuana use and anesthesia requirements throughout surgery.

During the preoperative assessment, anesthesia providers should specifically ask about marijuana use and inquire about patient's method of consumption and frequency of use in order to develop the safest anesthetic plan for each patient.

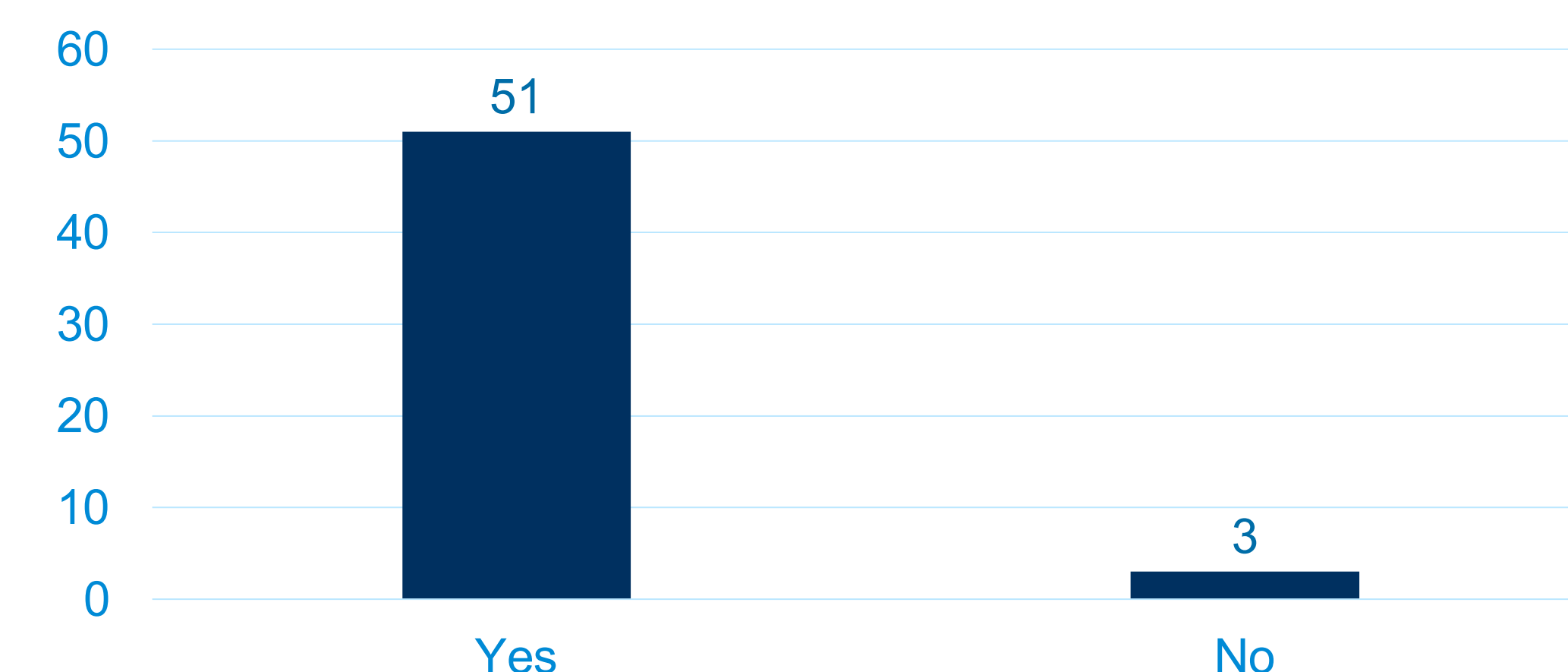
Translation

- Multimedia educational tools in the form of a digital handout and clinical scenario-based video were developed to educate patients who use medical marijuana on its anesthetic implications.
- The multimedia educational tools were distributed to Verilife customers via Verilife's email list-serve. A link to an 8-question post survey was also included in the email.
- After viewing the multimedia educational tools, 54 participants completed the survey through Google Forms.
- Data analysis revealed that 96% of participants stated they will inform their anesthesia provider of their marijuana use should they require surgery after viewing the multimedia educational tools.
- 51 of the 54 participants had a better understanding of the importance of disclosing marijuana use to their anesthesia provider(s) after viewing the multimedia educational tools.

IF YOU REQUIRE SURGERY, WILL YOU INFORM YOUR ANESTHESIA PROVIDER(S) OF YOUR MARIJUANA USE?



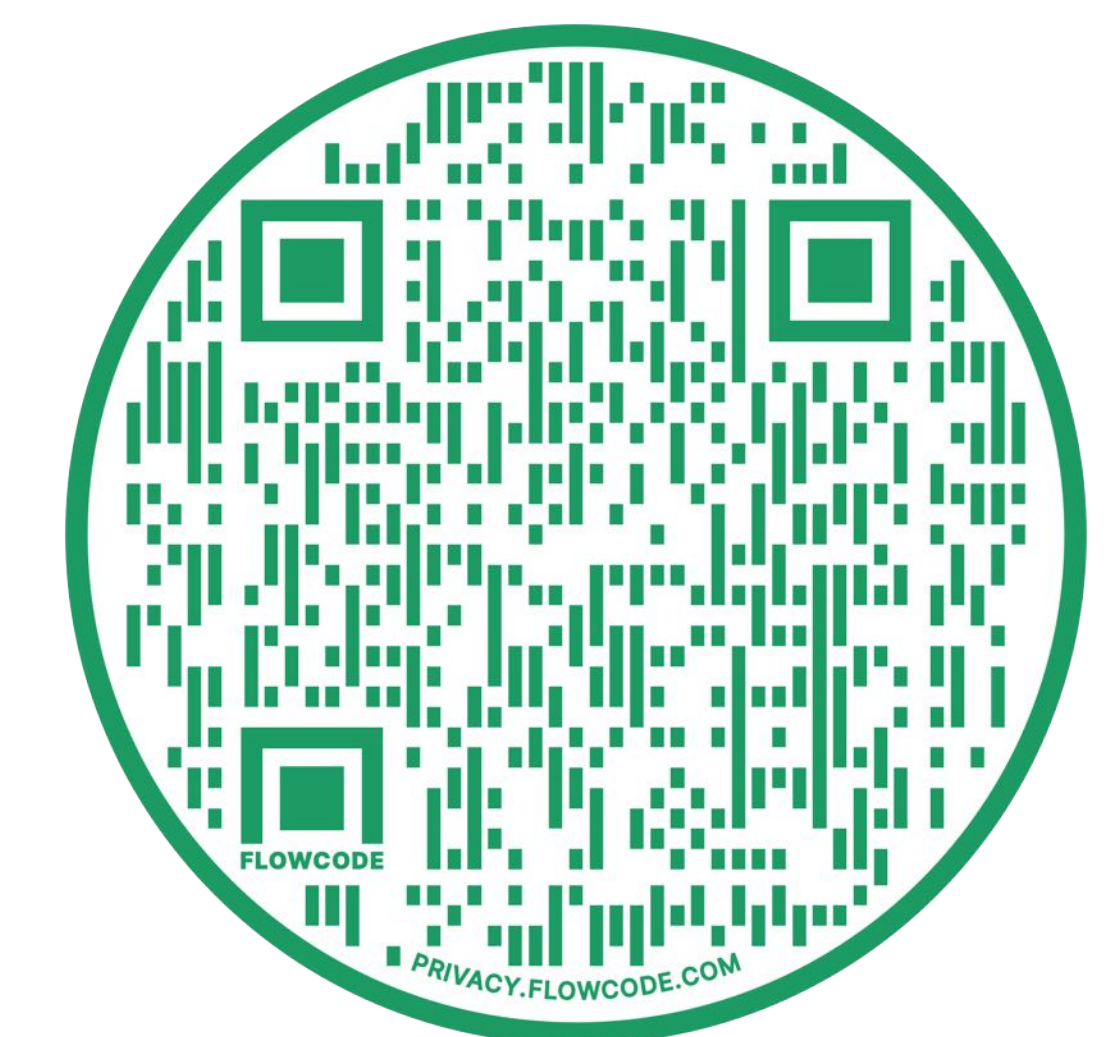
AFTER WATCHING THIS PRESENTATION, DO YOU HAVE A BETTER UNDERSTANDING OF THE IMPORTANCE OF DISCLOSING THIS INFORMATION WITH YOUR ANESTHESIA PROVIDER?



Conclusion

- When an anesthesia provider is aware of a marijuana consumer's history, frequency, and route of marijuana use, the anesthesia provider can adjust their anesthesia plan, prevent complications, and keep the patient as safe as possible (Hepner, 2020).
- Patients are more likely to admit use when they learn it might affect their care (Saleh, 2020).
- Data analysis reflected an understanding of the importance of disclosing medical marijuana use to an anesthesia provider.
- The use of multimedia educational tools do increase patient willingness to disclose medical marijuana use to an anesthesia provider prior to receiving anesthesia.

Video



References

- Boehnke, K. F., Litinas, E., Worthing, B., Conine, L., & Kruger, D. J. (2021). Communication between healthcare providers and medical cannabis patients regarding referral and medication substitution. *Journal of Cannabis Research*, 3(1). <https://doi.org/10.1186/s42238-021-00058-0>
- Echeverria-Villalobos, M., Todeschini, A. B., Stoicea, N., Fiorda-Diaz, J., Weaver, T., & Bergese, S. D. (2019). Perioperative care of cannabis users: a comprehensive review of pharmacological and anesthetic considerations. *Journal of Clinical Anesthesia*, 57, 41–49. <https://doi.org/10.1016/j.jclinane.2019.03.011>
- Fahimi, K., Abbasi, A., Zahedi, M., Amanpour, F., & Ebrahimi, H. (2020). The effects of multimedia education on postoperative delirium in patients undergoing coronary artery bypass graft: a randomized clinical trial. *Nursing in Critical Care*, 25(6), 346–352. <https://doi.org/10.1111/nicc.12473>
- Greene, K. A., Wyman, A. M., Scott, L. A., Hart, S., Hoyte, L., & Bassaly, R. (2017). Evaluation of patient preparedness for surgery: a randomized controlled trial. *American Journal of Obstetrics and Gynecology*, 217(2), 1–179.
- Hepner, D. (2020, February 3). *Coming clean: Your anesthesiologist needs to know about marijuana use before surgery*. Harvard Health Publishing. <https://www.health.harvard.edu/blog/coming-clean-your-anesthesiologist-needs-to-know-about-marijuana-use-before-surgery-2020011518642>
- Hsueh, F.-C., Wang, H.-C., Sun, C.-A., Tseng, C.-C., Han, T.-C., Hsiao, S.-M., Wei, C.Y., Chen, C.-H., & Yang, T. (2014). The effect of different patient education methods on quality of bowel cleanliness in outpatients receiving colonoscopy examination. *Applied Nursing Research*, 27(2), 5. <https://doi.org/10.1016/j.apnr.2013.12.004>
- Saleh, N. (2019, October 15). *Regular marijuana use changes anesthesia needs*. Anesthesiology news. https://www.anesthesiologynews.com/Clinical-Anesthesiology/Article/10-19/Regular-Marijuana-Use-Changes-Anesthesia-Needs/56086?sub=AAE6C43BBF898E612A5A338BD29EA36AB7CFCD8961FECC044E76187F2461B&enl=true&id=X3636795&utm_source=enl&utm_content=2&utm_campaign=20191016&utm_medium=title