

The Johns Hopkins Evidence-Based Practice (EBP) Model: Weinberg Perianesthesia Interventions for a Healing Environment

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Significance of the Problem

The Weinberg Perianesthesia Unit consists of a 28 bed Prep and PACU where surgical patients are prepared for surgery and also recovered from anesthesia and surgery. This nursing unit is one of the busiest perianesthesia units in Johns Hopkins Hospital. The unit has been described cluttered, dim, noisy, and needing a better therapeutic environment for patients to be prepared and recovered from their surgeries.

According to Melnyk and Fineout-Overholt (2015), nursing leaders must cultivate a “spirit of inquiry” within the EBP nursing culture because using the best evidence to bedside leads to the highest quality of care and best patient outcomes. After participating in the Weinberg EBP Competency Program in 2017, the staff identified the need to conduct a Perianesthesia EBP Healing Environment Project that focused on therapeutic nursing interventions. The Nurse Manager encouraged staff to integrate this EBP Healing Environment Project as part of the staff 2018 SuccessFactors’ Competency Goals.

Practice Question

What are the best therapeutic nursing interventions to create a safe healing environment for perianesthesia patients being prepared and recovered from their surgeries?

Search Strategy

Use PubMed, Scopus, and Cinahl to identify baseline articles relating to complementary techniques to promote healing. The literature search found 43 articles relating to: relaxation, music therapy, guided imagery, massage therapy, noise reduction, light therapy, and clean, uncluttered environment. Of these articles 19 were selected based on the relevance to the PICO question.

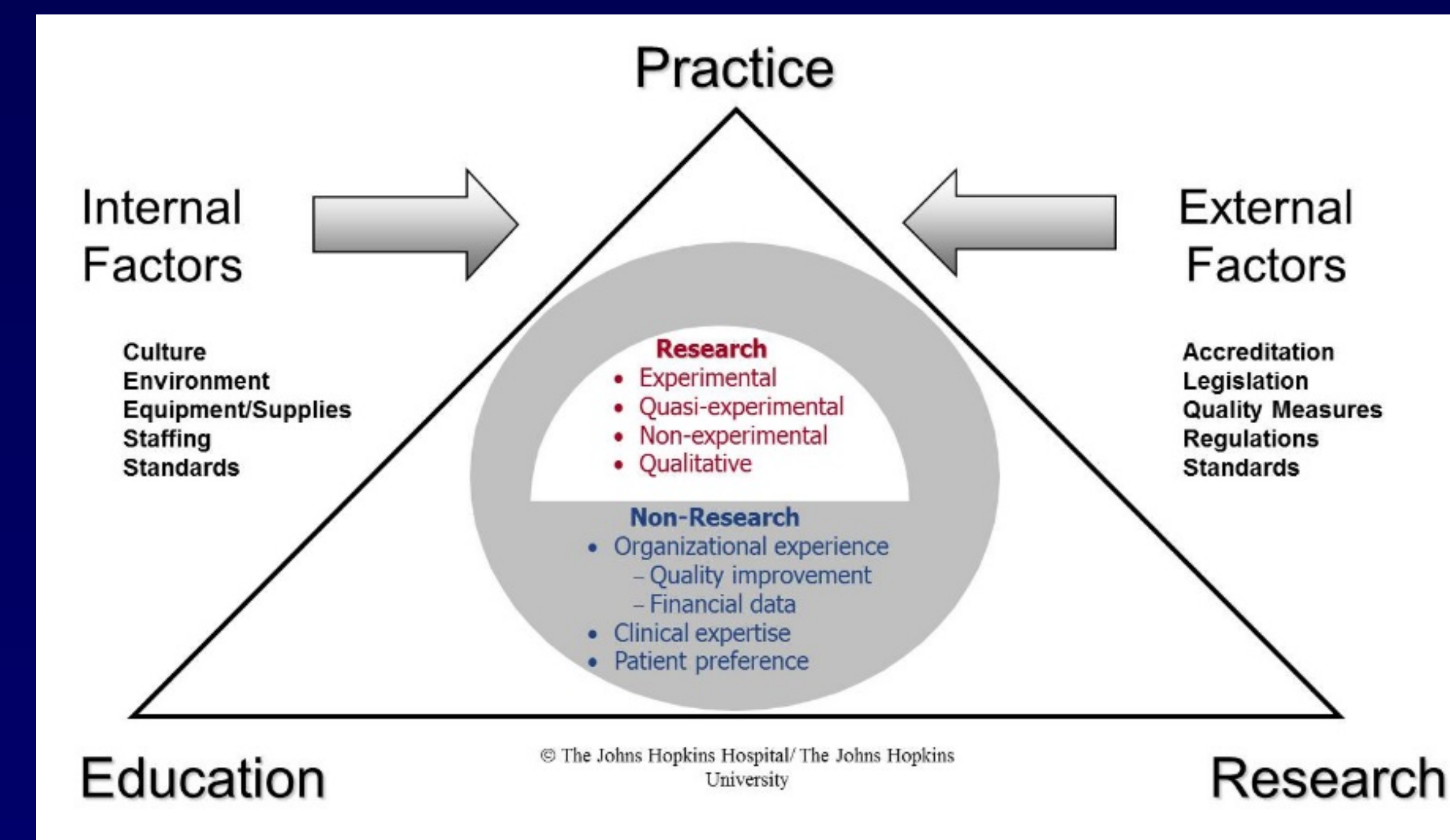
Evidence Summary

The Weinberg NCIII Nurse Educator mentored the staff nurses in participating with: leveling and appraising the evidence; and summarizing recommendations. All Weinberg staff participated in SuccessFactors unit-based competencies to create a therapeutic, healing environment for our patients, families, and staff. The Johns Hopkins Nursing EBP Model provided guidance for the EBP journey. An EBP mentor was available to help search the databases, provide initial review of the evidence for usability and appropriateness relating to the PICO.

References

Institute for Johns Hopkins Nursing, Poe, S.S. and White, K.M., Johns Hopkins Nursing Evidence-Based Practice: Implementation and Translation, STTI, 2010.

Johns Hopkins EBP Model



Summary of Evidence

Author / Date / Title / Journal	Design/method	Setting/Sample	Recommendations	Level/Quality
Conner (2009). Staff solutions for noise reduction in the workplace. The Permanent J	Expert Opinion	Noise reduction in the workplace	Educate staff involving ancillary; noise reduction; Reduce phone volumes; Provide earplugs and sleep masks; coordinate care	Level IV Quality A
Easter, DeBoer, Settlemire, Starkey, & Marlow (2001). The impact of music on the PACU patient's perception of discomfort. JoPAN	Experimental design RCT	PACU patients during recovery and when home	Positive experience using music by reducing severity of pain	Level I Quality A
Engvall & Dupplis (2009). Music as a nursing intervention for postoperative pain: A systematic review. JoPAN	Systematic review	PACU patients using music and their report of pain	Music has beneficial effects on postoperative pain in treatment groups	Level I Quality A
Good, A. et al. (2012) The effects of the post op salivary cortisol of relaxation, music, and patient teaching about pain management. Biological Research of Nursing Journal	Experimental design	Post-procedure colonoscopy patients on day one	Patient relaxation teaching and listening to music at the same time reduced a moderate effect of cortisol	Level I Quality A
Good, Anderson, Hicks, Grass, & Makil (2002). Relaxation and music therapy. Pain Management Nursing	Experimental design RCT	GYN surgery patients in the PACU	Music reduced pain 29% more than medicine alone; 5 mins before ambulating; 10 minutes after getting in bed	Level I Quality A
Hansen, (2015). A feasibility pilot study on the use of complementary therapies delivered via mobile technologies on Icelandic surgical patients' reports on anxiety, pain, and self-efficacy in healing. Journal of Biological Research	Experimental design RCT	Icelandic study using mobile video applications of music & guided imagery to lower anxiety, promote healing	Music and guided imagery can be more calming to patients; future research aimed at nature videos	Level I Quality A
Horkan, (2014). Alarm fatigue and patient safety. Nephrology Nursing Journal	Expert Opinion	Critical care setting	Identify causes of alarm fatigue; Develop protocols	Level IV Quality A
Johnson, Raymond & Goss (2012). Perioperative music readiness to decrease anxiety. JoPAN	Experimental Design RCT	Perianesthesia patients in same settings	Music is inexpensive, easy to administer; music offers coping strategies.	Level I Quality A
Johnson, P. & Thornhill (2006). Noise reduction in hospital settings. Journal of Nursing Care Quality	Expert Opinion	Critical inpatient setting	Identify sources of noise and address staff behaviors; use wireless communication	Level IV Quality A
Johnson, P. & Thornhill (2006). Can alarm fatigue be concurred? Journal of Nursing Care Quality.	Expert Opinion	Alarm fatigue in critical care settings	Decrease non-critical nuisance alarms on physiologic monitors	Level IV Quality A
Joseph & Ulrich (2007). Sound control for improved outcomes in healthcare settings. Journal for Health Design	Expert Opinion	Clinical setting	Limit communication in patient care areas; install high performing sound absorbing ceiling tiles	Level IV Quality A
Kaplow & Hasdin (2007). Creating a healing environment in the ICU. Journal of Critical Care Nursing	Descriptive study Non-Experimental	ICU patients in ICU setting	Natural light and full spectrum light produces less cortisol and ACTH stress hormones	Level III Quality A
Kauf et al. (2015). Brief cognitive behavioral and relaxation training interventions for breast cancer: A randomized control trial. Consult Clinical Psychology Journal	Cognitive Behavioral Training - Qualitative	Relaxation therapy for breast cancer therapy patients	Intervention group reported improved emotional well-being/ quality of life (QOL); good stress management	Level III Quality A
Long & Stover (2014). A culture of quiet: Caring for patients by creating an environment of healing. Int Journal of Human Caring.	Descriptive study Non-Experimental	Nursing conversations outside rooms; noisy wheels (carts)	Nurses should avoid conversations near patient rooms, especially in nurses' stations; fix faulty wheels	Level III Quality A
Stichter (2001). Creating healing environments in critical care units. Journal of Critical Care Nursing Quarterly	Descriptive study Non-experimental	ICU patients exposed to natural sunlight	Increases endorphins, mood, and emotional well-being; lowers blood pressure	Level III Quality A
Transberg & Stomberg (2013). Listening to music during regional anesthesia. JoPAN	Non-experimental Qualitative	Listening to music during regional anesthesia	Listening to music reduces anxiety; low cost; safe; complements pharmacologic	Level III Quality A
Ulrich (1984). View through window may influence recovery from surgery. Journal Science	Descriptive Non-Experimental Design	Postoperative Cholecystectomy patients	View of nature/natural light correlated with shorter postoperative hospital stays.	Level III Quality Classic Article

PICO Question:

What therapeutic nursing interventions create a healing environment for our perianesthesia patients?

P = Weinberg patients having surgery

I = Therapeutic healing nursing interventions

C = Compared to Weinberg Standard Prep/PACU nursing care

O = Healing perianesthesia care environment

Evidence-Based Healing Interventions Outcomes



EBP Recommendations for Translation to Perianesthesia Practice

- Uncluttered, clean environment creates order and well-being for patients, families, and staff
- Music preoperatively reduces anxiety; creates beneficial effects on post-operative pain; relatively inexpensive; easy to administer; helps with coping; and good intervention post discharge to home.
- Decreasing noisy environment by: raising awareness of being respectful and avoiding conversing with other nursing colleagues near patients; evaluate all equipment used in the Prep/PACU for noise; and keeps sound at therapeutic level.
- Promoting light is correlated with shorter postoperative hospital stays, higher satisfaction with nursing care, and decreased use of potent analgesics.
- Decreasing both noise and turning the lights down during agitated emergence from anesthesia has significant effect on PACU patients' anxiety, which with other factors decreases the incidence of delirium.*.
- Initiating full-spectrum fluorescent lighting simulates the same spectrum as sunlight and has been shown to positively impact emotional and physiological well-being as natural sunlight.
- Conducting relaxation therapy is proven to decrease anxiety and reduce pain.
- Providing massage therapy is beneficial for relieving pain and reducing anxiety.

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