

Effects of Music Therapy on Pain of IV insertion

Introduction

Lidocaine is commonly used in patients prior to IV insertion to reduce the level of pain experienced during the procedure. However, though the pain may be reduced, the patient still experiences a burning sensation when the Lidocaine is administered and feels uncomfortable pressure during the actual insertion of the IV catheter. Is there non-pharmacological interventions that can achieve the same effect?

Research Question

In preoperative patients, what is the effect of Music Therapy on pain level of IV insertion compared with the use of Lidocaine?

Purpose

The purpose of this research study is to identify the effects of Music Therapy on pain levels of preoperative patients during IV insertion.

Conceptual Framework

Gate control theory of pain according to Melzack and Wall (1965) would be a great description of this study's application to nursing. This theory acknowledges that not only do physical factors play a role in perception of pain, but so do emotional and behavioral factors. These emotional and behavioral factors can be manipulated via use of Music Therapy to change perception of pain.

Research Design

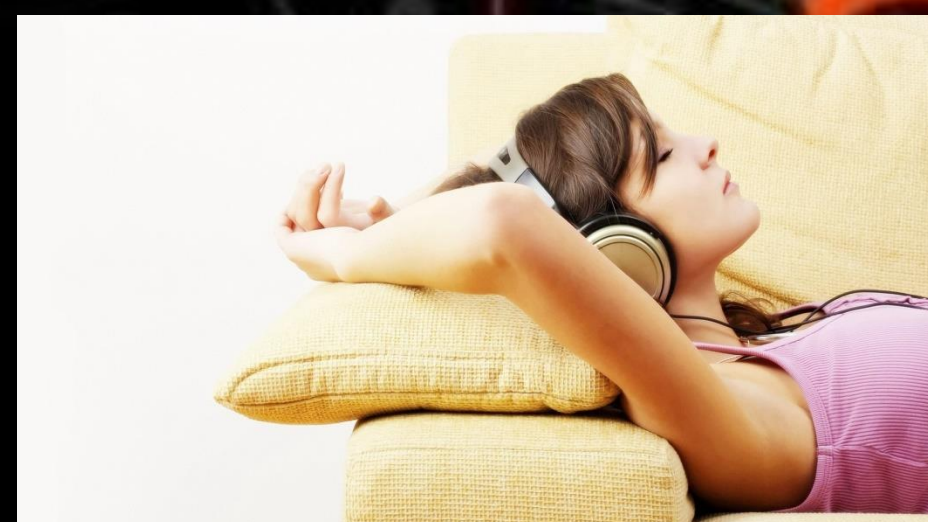
Quasi-experimental

- No Random Assignment
- Comparison Group
- Intervention

IV: Music therapy VS Lidocaine

DV: Level of pain

<http://keep-it-moving.com/5-songs-make-relax/>



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Sample

- Non-probability Convenience
- Exclude if first IV stick not successful
- N = 60
 - n=30 patients who enjoy classical music (Music Therapy)
 - n=30 patients who do not enjoy classical music (Lidocaine)

<http://www.unihealthtag.aytay.com/news/ivt-training-2013/>



Data Collection

- IRB approval pending from University and Medical Center
- Full disclosure of study will be revealed to patients after procedure and allow option to opt out of study. Confidentiality will be assured.
- Location: Northwestern Kansas Medical Center ambulatory unit
- Patient will be asked to rate pain using the Visual Analog Scale (VAS) at predetermined times of IV insertion procedure (before, during, and immediately following).
- While lying down in semi-fowlers position with one pillow behind their head. Soft classical music will play for 20 minutes prior to IV stick and continue to play during procedure.
- While lying down in semi-fowlers position with one pillow behind their head. Nurse will administer lidocaine next to the vein in which IV stick will be performed.
- Pain will be rated using VAS at same times of IV stick for Lidocaine patients as for Music Therapy patients.

Projected Data Analysis Method

T-test will be used for comparison of IV: Music Therapy VS Lidocaine (Nomial) effects on levels of DV: Pain (interval/ratio).

Implication for Nursing

The information obtained through this study could provide a possible alternative to hospital policy's regarding IV insertions. Nurses could potentially have an easier time starting IVs on patients who are more relaxed.

Conclusion

Results are pending on data collection and data analysis.

References

- Gate Control Theory. (2012). Retrieved November 5, 2014, from http://currentnursing.com/nursing_theory/Gate_control_theory.html
- Nieswiadomy, R. (2012). *Foundations of Nursing Research* (6th ed.). Upper Saddle River, NJ: Pearson Education