



Non-Pharmacological Interventions for Postoperative Pain After Total Hip and Knee Arthroplasties

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Purpose

•The purpose of this project is to decrease the incidence of post-operative pain in a total knee and hip arthroplasty population by implementing non-pharmacological methods. I created an educational electronic PowerPoint created for staff members at OrthoCincy Orthopedics and Sports Medicine to review and understand the benefits of the non-pharmacological methods that will be offered to patients. The staff will have a better understanding of the approaches outlined on a handout available for patients, to answer any questions they may have as well as, if they would like a referral.

Background/Literature Review Summary

- The primary goals of pain management with total joint replacements are the patient's comfort after surgery and a smooth transition from hospital care to home.
- Patients returning to the emergency department (ED) for emergent pain control is often an issue during the postoperative days.
- Researchers found that within a 30-day period after patients' received a total joint replacement 9.23% returned to the ED (Finnegan et al., 2017).
- Of the patients that returned to the hospital 3.42% were admitted to the inpatient setting and 5.81% were discharged home from the emergency department (Finnegan et al., 2017).
- The primary diagnosis for the ED visits was pain, side effects of opioids, or comorbidities (Finnegan et al., 2017).
- The United States is experiencing the worst opioid overdose epidemic ever to be presented in history, with prescription drug abuse as the leading cause of accidental death (Lespasio et al., 2019).
- A 2015 study showed there were 52,404 lethal drug overdoses, of which almost 40% were related to legal prescription pain medications (Lespasio et al., 2019).
- In total joint replacement, current pain management plans consist of large quantities of opioids prescribed for postoperative pain control.

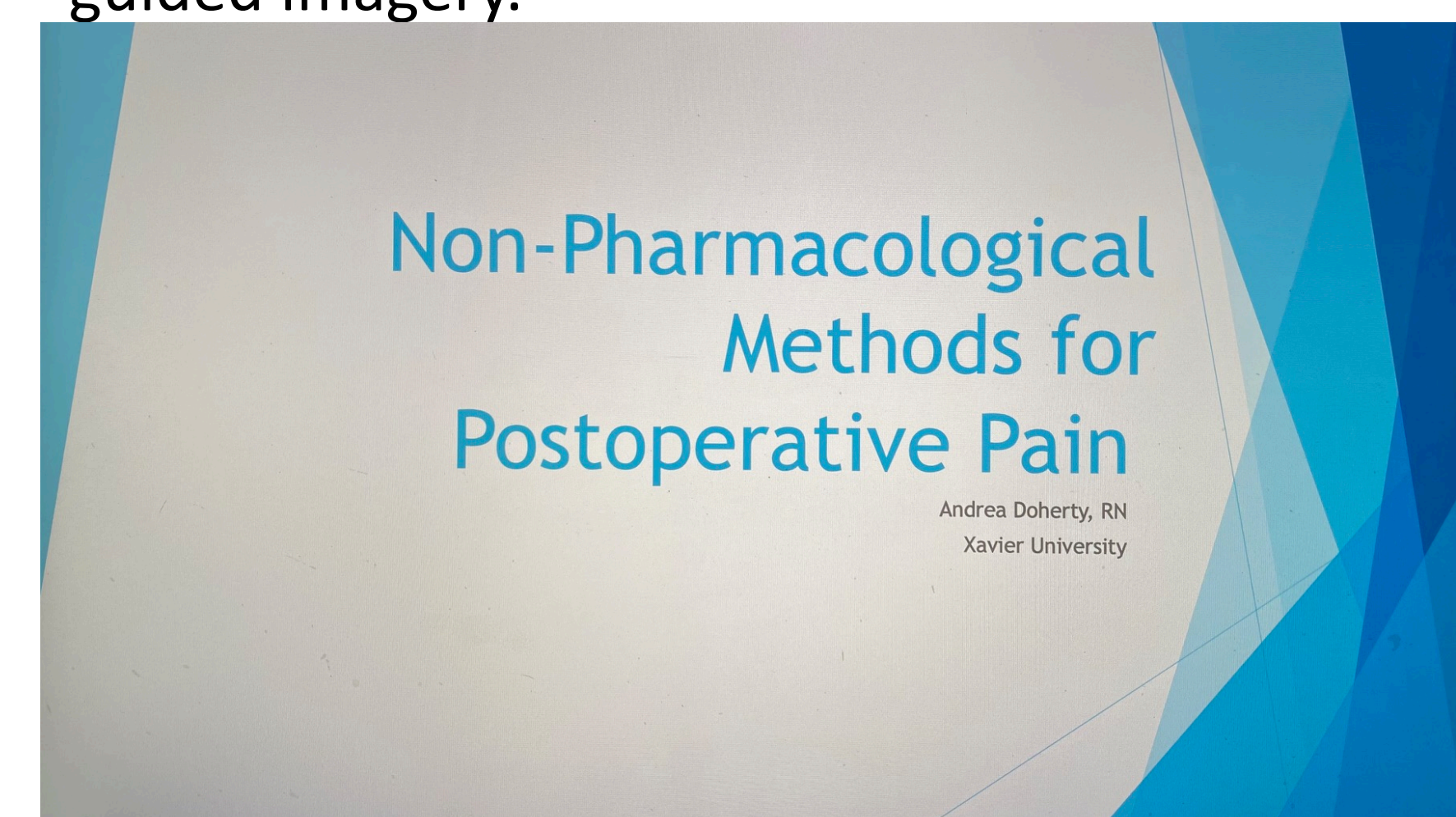
Nursing Theoretical Framework

•Katherine Kolcaba's Theory of Comfort is defined as meeting the basic needs of patients in the form of ease, relief, or transcendence. Those basic needs can be categorized into four areas including environmental, sociocultural, psychospiritual, and physical. These three concepts propositions:

1. The ease concept works to calm the patient's anxiety of pain by giving them the understanding and desirable outcome of decreased pain.
2. The relief concept is to meet a specific need for the patient's localized pain and providing a solution to relieve the pain.
3. Transcendence is the moment the patient overcomes their struggles of pain by feeling the relief and ease that the non-pharmacological methods have provided for them. (Nursing Theory, 2020).

Methods/Project Description

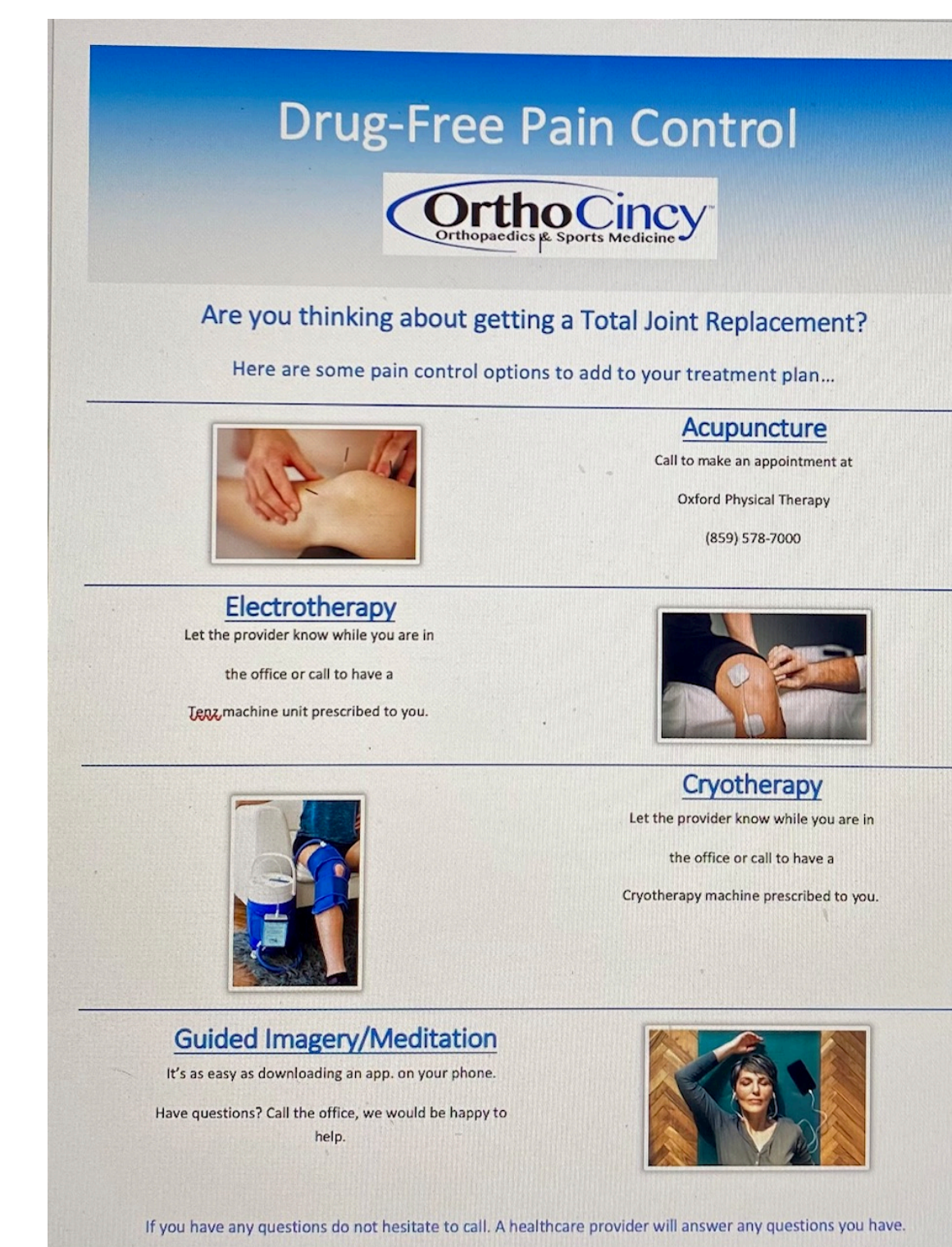
1. Introduction to the Non-pharmacological concept with the use of educational video reviewing the selected methods patient's have the option to use. This video was created with a voiceover PowerPoint.
2. The non-pharmacological methods discussed are acupuncture, electrotherapy, cryotherapy, and guided imagery.



3. Have the staff members take a pre-survey and post-survey before and after watching the video. The pre-survey reviews questions judging how familiar staff members are to non-pharmacological methods before watching the video. The post-survey reviews their knowledge after the educational video to conclude if the exercise helped to educate the staff. These surveys will be created using the electronic platform, SurveyMonkey.

Methods/Project Description Cont.

•4. The final step of the project was creating an educational handout for patients that outlines the purpose and benefits of each non-pharmacological method available to them. The handout can be provided in an email or as a paper copy so the patient and/or their family members can refer to it at a later time or ask questions to their provider.



Barriers/Challenges

- Staff members may not agree with the use of non-pharmacological methods.
- Staff members may not know the background of non-pharmacological methods.
- There is a stigma against non-pharmacological methods versus the use of pharmacological approaches.

Implications for APRN and Primary Care

Introducing non-pharmacological approaches in the orthopedic setting provides the patient and the provider several options for pain management. This leads to:

1. Multiple pain control regimens for patient treatment plans.
2. Personalized treatment plans for patients.
3. Fewer unfavorable side effects from opioids.
4. Fewer hospital readmissions and emergency room visits.
5. Reduced possibility of opioid dependency, abuse, and/or addiction.

Outcomes and Evaluation

•A survey will be conducted before and after the staff review the video to evaluate their understanding of the information provided in the educational video and to ascertain if they have a better understanding of the non-pharmacological methods reviewed. Once the staff is educated about the non-pharmacological methods they can explain the options to the patients and answer any questions that patients or the family may have.

•To evaluate if the patient's pain was controlled adequately the patient will be asked if they found the methods that they used to be helpful with their pain and anxiety or did they still require increased opioid medication. Pain scales will be collected preoperatively and postoperatively about the method chosen by the patient to evaluate improvement in their pain control.

•Expected Outcomes:

•The expected outcome for this scholarly project is to improve pain control and management postoperatively using non-pharmacological methods for patients that have undergone a total knee and/or hip arthroplasty procedure. By providing staff with an educational informative video that will enhance their understanding of the alternative methods to pain control leads to increased patient satisfaction. So they can educate their patients on the selected methods to assess the benefits of their patient's pain with the appropriate pain control.

Conclusion

•It is well known patients experience a large level of pain after total joint surgeries. Providing non-pharmacological approaches for patient's to control their pain levels, helps to decrease the incidence of pain experienced by the patient.

•Adding non-pharmacological methods in the postoperative setting will help to reduce the use of prescription opioids for pain management. Thus, decreasing the incidence of opioid dependency, abuse, and addiction in the United States.

•This project was created to increase the prevalence of non-pharmacological approaches used at OrthoCincy, in the regards to expand this type of treatment to other orthopedic and surgical settings. To introduce the use of the non-pharmacological approaches mentioned an educational video and patient handout was created to educate the staff and patient's about the various options provided.