

Evaluating Nurses' Knowledge and Intention to use Acupressure for Chemotherapy-Induced Nausea and Vomiting after an Educational Intervention

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Purpose/Aim

- The purpose of this DNP Quality Improvement Project was to evaluate whether an educational intervention would increase nurses' knowledge and intention to use acupressure for Chemotherapy-Induced Nausea and Vomiting (CINV).
- The overarching goal for this project was to increase nurse's awareness of acupressure as a potential strategy for improving CINV.
- Increasing nurses' knowledge about evidence-based non-pharmacological alternatives for managing CINV may improve nurses' perceptions of the benefits of acupressure, and increase their intention to use acupressure for controlling nausea and vomiting associated with chemotherapy.

Background

- Chemotherapy-induced nausea and vomiting (CINV) are the most common side effects experienced by cancer patients receiving chemotherapy.
- Approximately 80% of cancer patients experience CINV at some point in their treatment, and it has a significant impact on their quality of life.
- Uncontrolled nausea and vomiting can cause poor outcomes such as electrolyte imbalances, malnutrition, dehydration, anxiety, and depression.
- Prevention and control of CINV are imperative for the initiation and completion of chemotherapy treatment.

Methods

- Setting
 - Moffitt Cancer Center: Hematological/Surgical Unit
- Design
 - Single group pre/post-test design
- Sampling/Sample Size
 - Convenience sampling
 - 30 RN's who met study criteria participated in the project.

Methods

Nurses' Knowledge and Intention of Use of Acupressure for Chemotherapy-Induced Nausea and Vomiting Questionnaire

- Self-developed questionnaire
- Domains
 - Knowledge: 8 items
 - Attitude: 3 items
- Implementation:
 - Pre-test was provided prior to the Educational Intervention
 - 13 minute recorded PowerPoint presentation provided individually and/or as a group.
 - Post-test was provided directly after viewing the Educational Intervention.

Nurses' Knowledge and Intention of Use of Acupressure for Chemotherapy-Induced Nausea and Vomiting Questionnaire

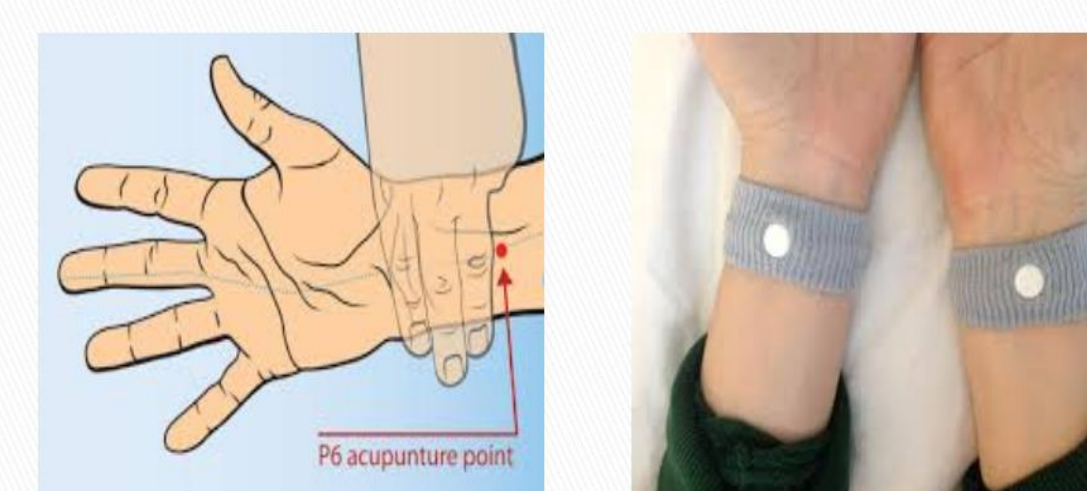
Pre-Test and Post-Test					
For each question below, circle yes or no for the best response.					
1. Acupressure involves the use of needles on the surface of the skin.	Yes	No			
2. Acupressure is a Western Medicine, non-pharmacological approach used thousands of years ago.	Yes	No			
3. Acupressure is based on the Meridian Theory, which suggest that energy flows through channels in the body to create balance or harmony.	Yes	No			
4. Acupressure helps alleviate symptoms of Chemotherapy-Induced Nausea and Vomiting (CINV).	Yes	No			
5. Acupressure is a non-pharmacological agent that is recommended to be used alone and without standard antiemetic medications.	Yes	No			
6. Acupressure can be applied with the finger or with wristbands.	Yes	No			
7. Acupressure should be applied for at least 10 minutes a day.	Yes	No			
8. There are no side effects associated with acupressure.	Yes	No			
For each question below, circle the best response.					
9. I am confident with my ability to use acupressure.	Always	Very Often	Sometimes	Rarely	Never
10. At present, I use acupressure with my oncology patient population to improve their experience with CINV.	Always	Very Often	Sometimes	Rarely	Never
If answer to question #10 is never, please proceed to answer question #11.					
11. I anticipate using acupressure with my oncology patient population to improve their experience with CINV.	Always	Very Often	Sometimes	Rarely	Never

Educational Intervention Outline

- Definition of Acupressure
- History of Acupressure
- Importance of Acupressure/Benefits
- How to Apply Acupressure
- Nursing Implications

Promoting the use of Acupressure for Chemotherapy-Induced Nausea and Vomiting
Integrating Non-Pharmacological Therapies into Practice
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How to Apply Acupressure



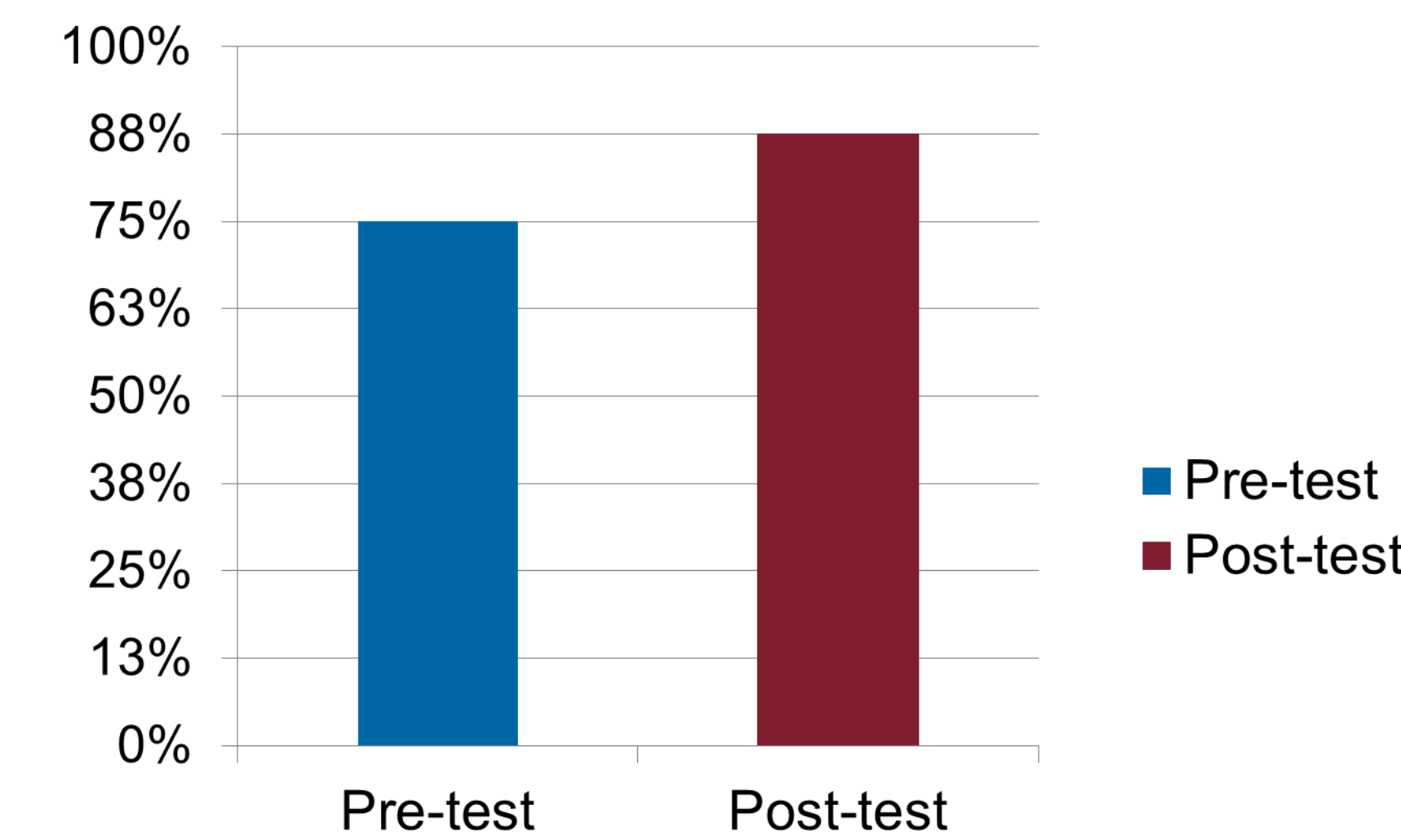
Finger acupressure is noninvasive pressure applied by the thumbs, fingers, and hands on the surface of the skin at key points.

Acupressure wristbands are elastic wristbands with a 1-cm protruding plastic stud that are placed on the P6 acupoint.

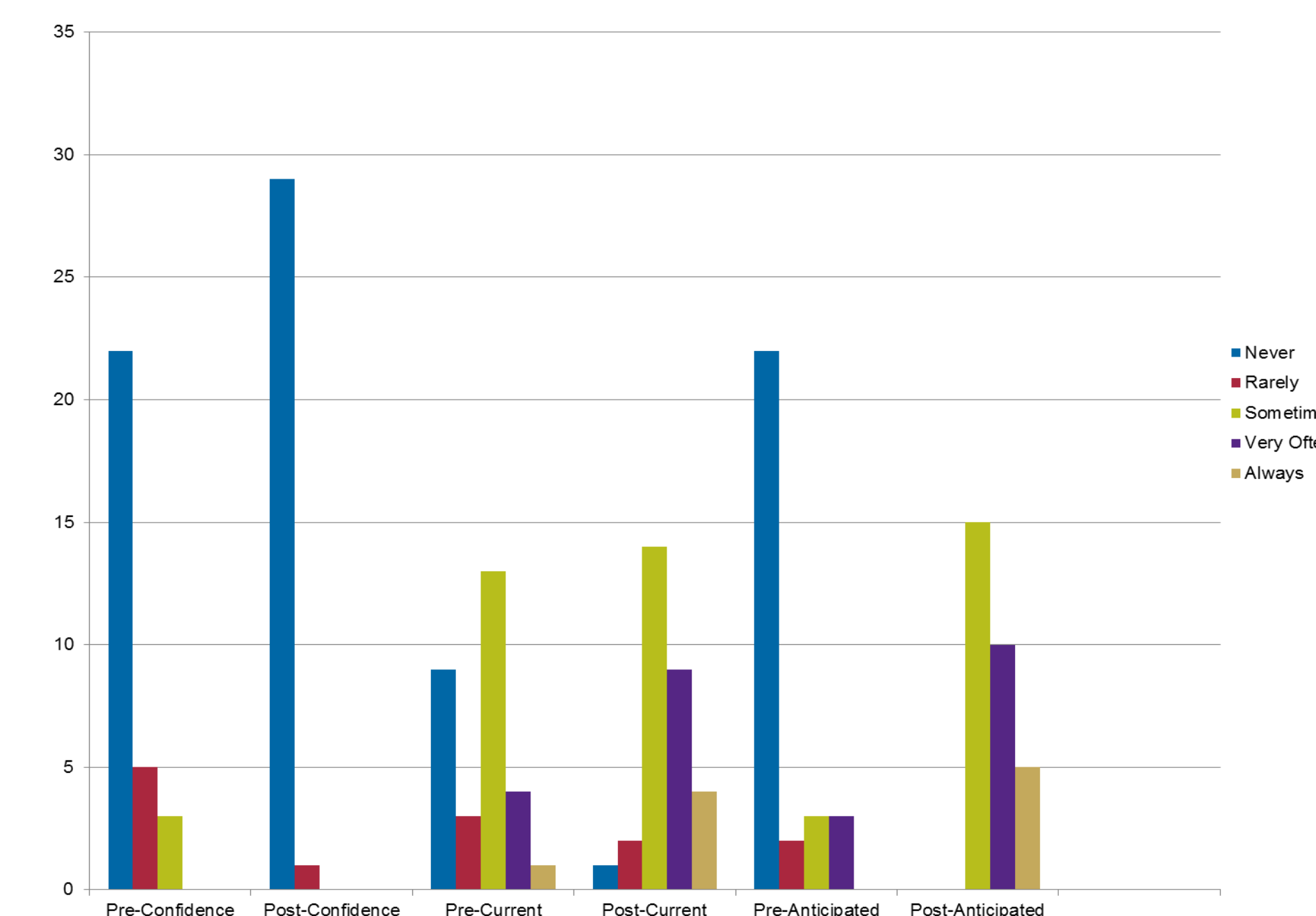
Results

The most frequently observed category of Pre-test Knowledge was 75% (n = 10, 33%). The most frequently observed category of Post-test Knowledge was 87.5% (n = 12, 40%).

Pre-test and Post-Test Knowledge Scores



Pre-test and Post-test Attitude Item Responses



Attitude Items: Differences between pre/post-test results

- More nurses were less confident to use acupressure after the educational intervention.
- More nurses reported using acupressure after the educational intervention.
- More nurses reported intent to use acupressure after the educational intervention.

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Pre/Post-test Confidence	-2.43	.015
Pre/Post-test Current Use	-3.49	< .001
Pre/Post-test Anticipated Use	-0.21	.831

Discussion

- There was improvement of knowledge after the intervention, which consisted of a 1 item correction. This may have been due to immediate recall since the post-test was provided directly after the intervention.
- The confidence was reduced after the intervention. This may have been due to viewing the intervention and realizing how vital it is to be aware of alternative treatments to help manage CINV.
- More nurses reported using acupressure after the intervention, but their confidence was decreased. This may be due to having increased awareness and desire to use acupressure after watching the intervention, but still needing more education and training to feel more confident using acupressure.
- There was no difference in anticipated use, which may be due to nurses having low confidence. Providing further educational interventions and training may be strategies to help increase nurses' confidence and intention of use of acupressure for CINV.

Implications for Nurses

- Acupressure is an evidence-based practice with the potential to improve CINV. Nurses play an important role in integrating acupressure for patients experiencing CINV, and in teaching patients and their families about the appropriate use of this nonpharmacological strategy.
- Providing nursing education for the use of acupressure to manage CINV is important in improving nurses' confidence an actual usage of acupressure in clinical practice.
- Better assessment and control of CINV has the potential to improve patient satisfaction and patient outcomes and reduce reluctance to initiate or complete chemotherapy.

Limitations

- Small sample size due to being limited to a specific unit, and not all nurses on that unit were able to participate.
- Time constraints of nurses participating in the educational session.
- Nurses' workload prevented participation of several nurses from selected unit.

Acknowledgements

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