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Promoting Comfort During CT-Coronary Angiogram

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¹Homestead Hospital

Introduction /Background

- CT coronary angiogram (CTA) is a non-invasive scan visualizing the coronary arteries.
- Though CTA is a painless procedure, patients were exhibiting anxiety related to the procedure and as a result experience an increase in their heart rate.
- Beta-blocker (Lopressor) pharmacological agents, are frequently administered to decrease patients' heart rate allowing for a more defined image .
- Using Kolcaba's Comfort Theory to guide our approach and the Clinical Evidence Through Evidence-based Practice model to guide our process, we sought to reduce patients' fear and anxiety during CTA procedures through the use of non-pharmacological comfort nurse-driven measures.



Define Clinical Practice Question

- Will the use of non-pharmacological comfort strategies, the need for beta-blocker administration among patients undergoing CTA procedures at Homestead Hospital when compared to those who did not receive non-pharmacological comfort measures?

Assess

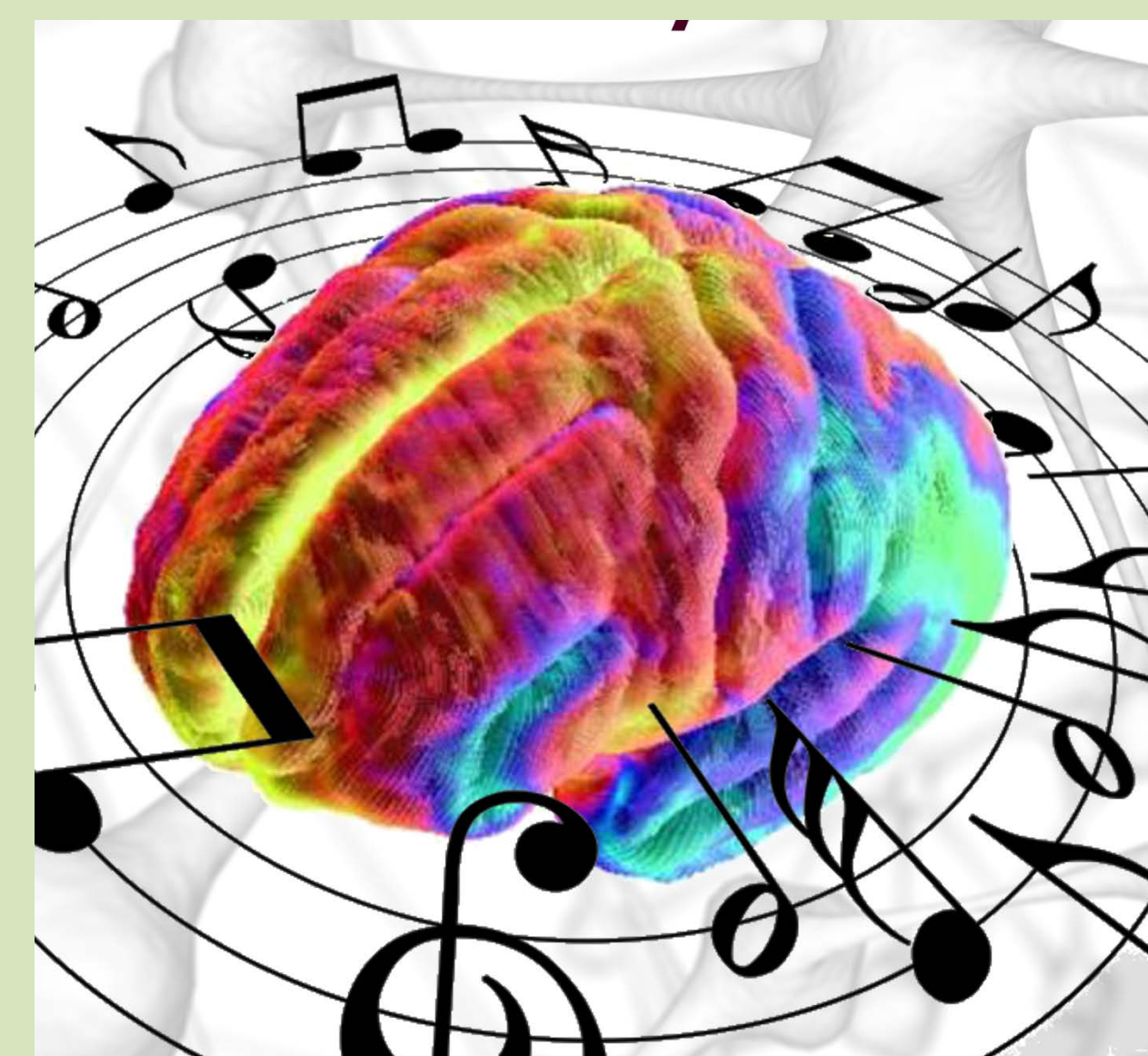
- We examined the research evidence regarding the use of non-pharmacological comfort measures during CTA and during magnetic resonance imaging and found evidence supporting the effectiveness of music (Munn & Jordan, 2014; Nilsson, 2012; Nilsson, Lindell, Eriksson & Kellerth, 2009; Weeks & Nilsson, 2011).
- To address patient preferences, it was determined that other forms of non-pharmacological comfort measures, perhaps less well-studied should be included in our intervention.

Plan

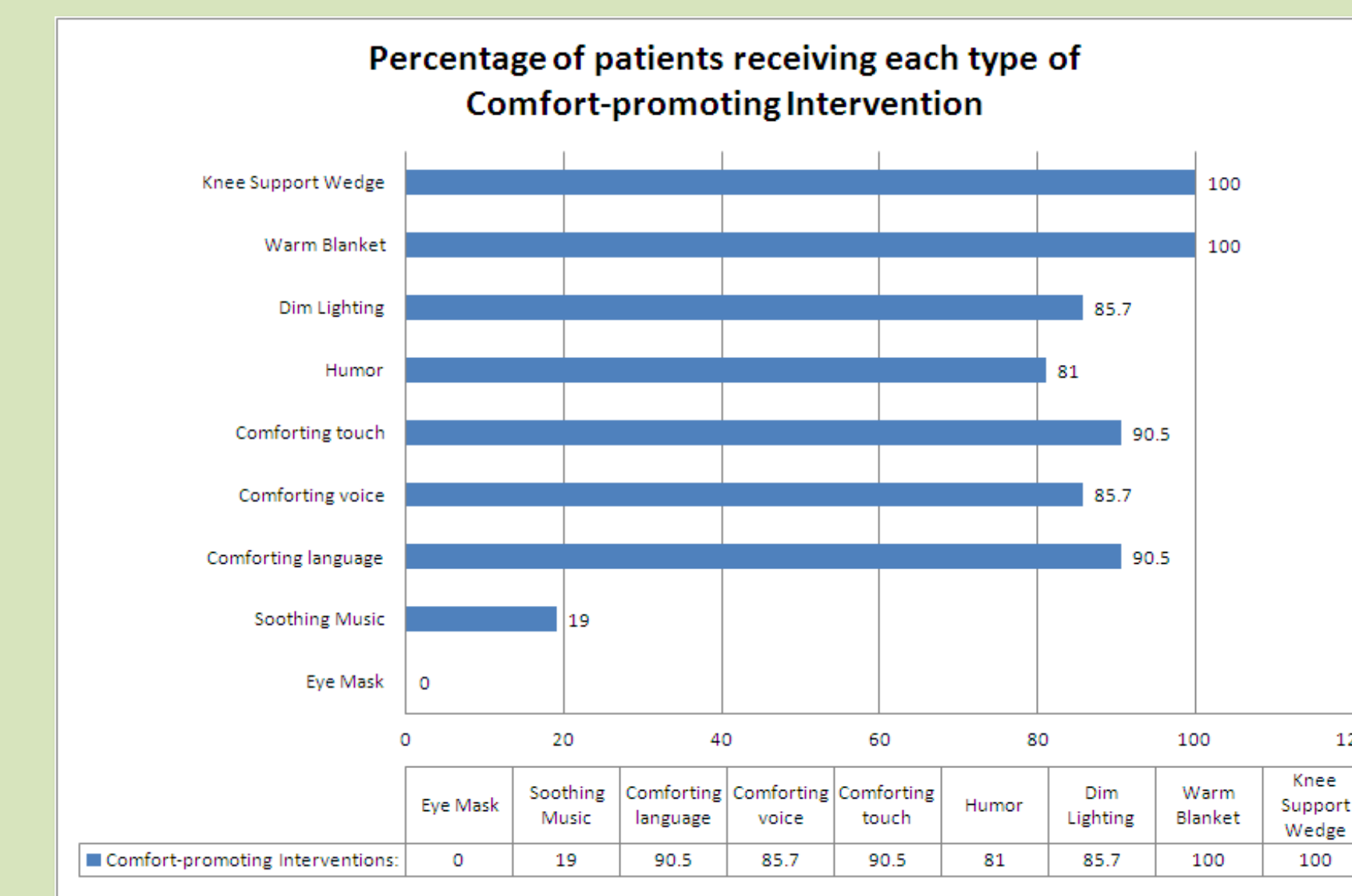
- The Resource Unit Practice Council planned the implementation of this evidence-based practice project.
- The target group was identified as patients: age 18 – 70 years, TIMI score < 3, ability to hold breath > 20 seconds, normal sinus rhythm (no PVC or PAC's), BMI < 50. Exclusion criteria were: significant hearing loss, uncontrolled psychiatric illness, and severe dementia.
- In order to assess the effectiveness of the non-pharmacological comfort measures, nurses caring for patients were also instructed to observe and record the objective signs of anxiety, nervousness, fear, pain, or sadness throughout each procedure.
- The amount of beta-blocker administered would also be tracked.

Implement

- Data was collected on twenty adult patients undergoing CTA between September 2013 and June 2014, before and after the implementation of the use of non-pharmacological comfort measures.
- Patients were offered their choice of non-pharmacological comfort measures during the CTA experience, participation was voluntary.

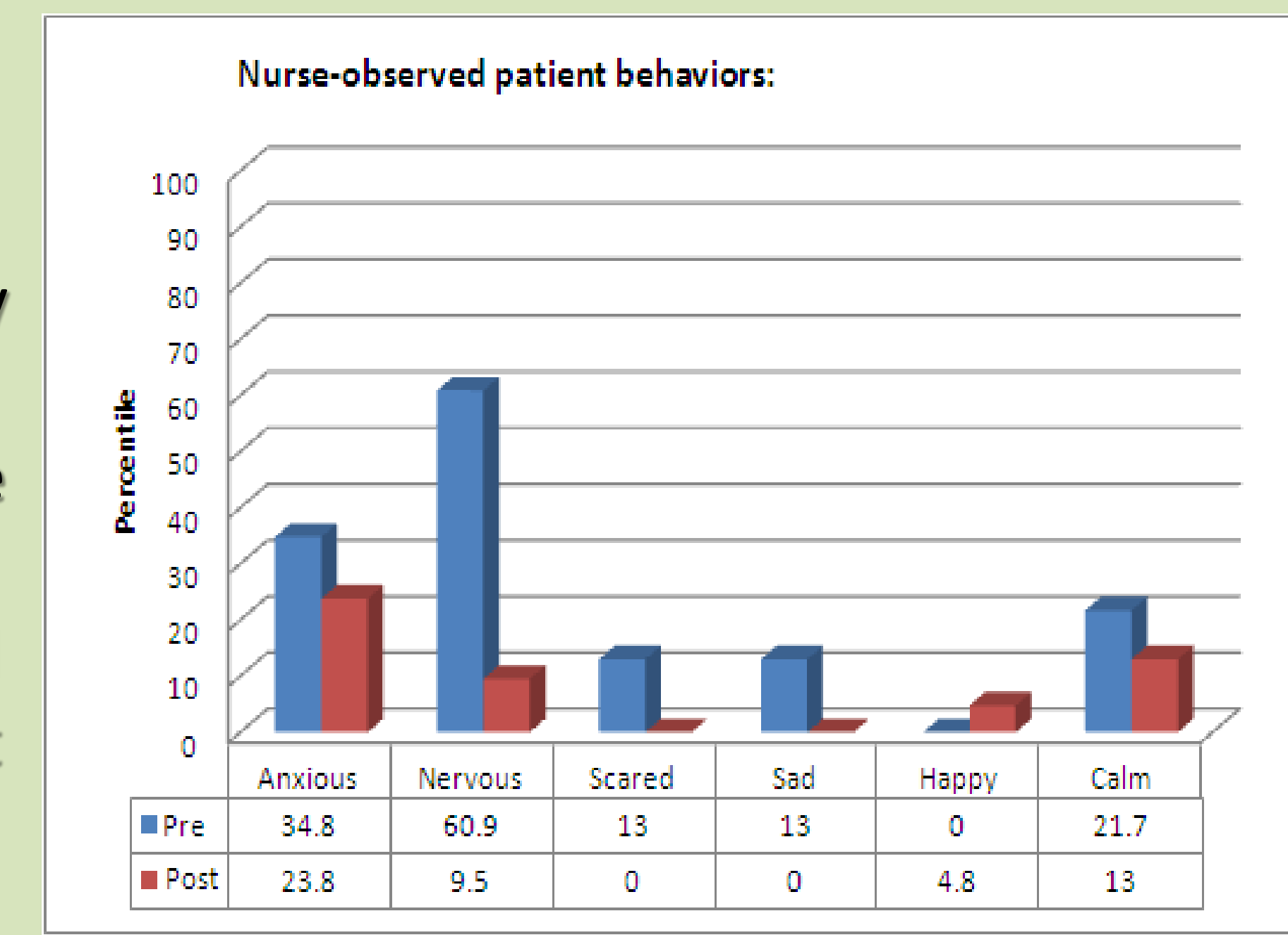


Evaluate

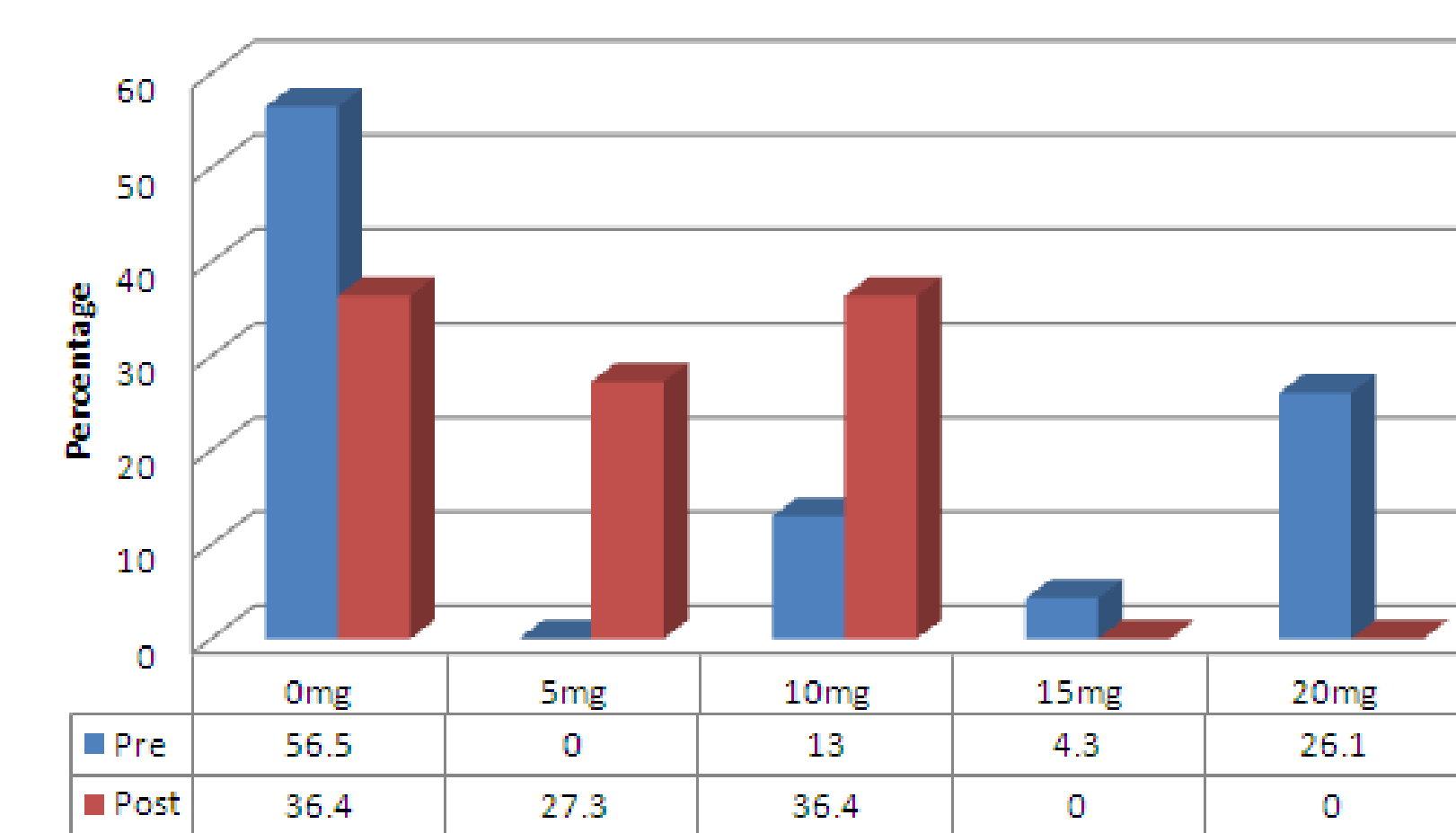


This use of non-pharmacological measures for patients undergoing CTA illustrates nursing autonomy and their influence in shaping the patient care environment.

Patients displayed fewer signs of anxiety & appeared more comfortable after the implementation of non-pharmacological nurse-driven comfort measures.



Pre- & Post-Intervention Total Beta-blocker Dosages



Rendering comfort interventions decreased patients' level of anxiety as evidenced by a need for lower doses of beta-blockers during CTA.

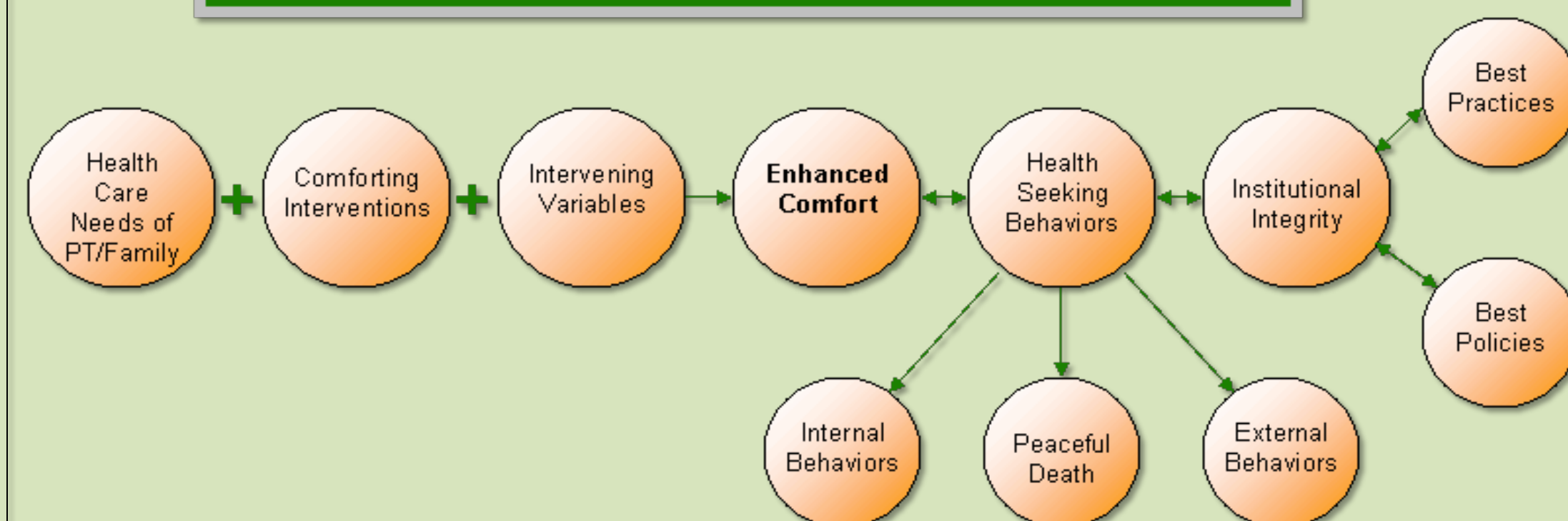
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Conceptual Framework for Comfort Theory



Kolcaba, K. (2010). Conceptual Framework: Comfort Theory. Retrieved from: <http://www.thecomfortline.com/resources/media.html>

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