

# Effect of Airway Management Education on Knowledge, Skill, and Confidence Levels on Senior Nursing Students

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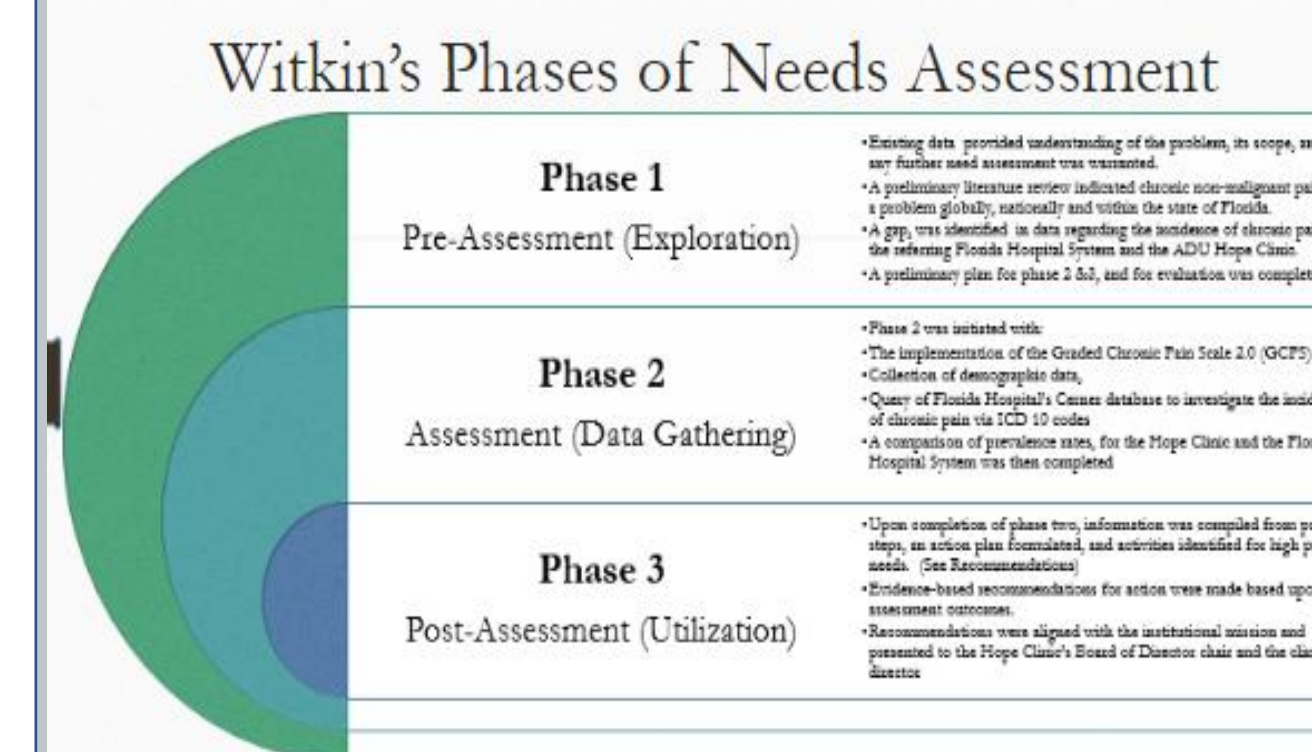
## Problem

- Nurses are usually the first healthcare providers to notice a deterioration in patients' health status, carry out basic airway management and assist with advanced airway management.
- Student nurses have limited exposure to clinical situations in which to identify and manage a deteriorating patient.
- Nursing students reported knowledge gaps, a lack of preparedness, anxiety about responsibility, and being in a constant state of panic when dealing with emergency scenarios and airway management.

## Methods

- The Witkins Needs Assessment Model consists of three phases: pre-assessment, assessment, and post-assessment.
- The first phase of the model is pre-assessment. It determines the feasibility of the needs assessment and the scope of the requirements.
- The second phase, assessment, involves gathering and analyzing collected data.
- The third phase of Witkins needs assessment model is post-assessment. This stage is decision-making.

## Illustration



## Discussion & Implications

- The low fidelity airway simulation lab revealed that there is a need for airway management education in senior nursing student.
- Although, students were provided education on how to perform bag-mask ventilation, students performances in the pre-skills testing checklist demonstrated a lack of skill.

## Literature Review

- Airway management and proper ventilation are essential skillsets of nurses involved in patients care during an emergency.
- Interruption of pulmonary gas exchange for greater than five minutes may irreversibly damage vital organs.
- Despite annual certifications in basic life support, nursing students are not proficient in managing emergency situations, especially when dealing with the management of the airway.

## Results

- There was a total of 21 participants; of the 21, only one student completed the pre and post assessments, and education module. However, all 21 expected participants attended the airway lab.
- Results of airway management skills demonstrated that there is a significant difference in test scores pre-intervention as compared to post-intervention

## More Results

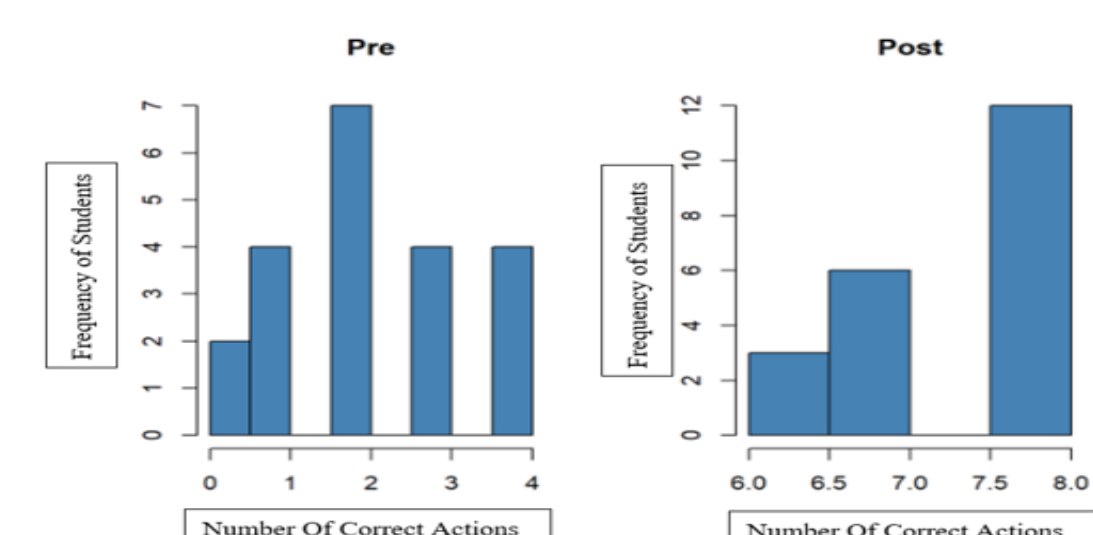
- To evaluate the pre and post intervention mean score the Wilcoxon Signed Rank Test (paired) was utilized rendering a p-value of  $<0.05$  (p-value=2.895269e-05).
- Results demonstrated that there is a significant difference in test scores pre-intervention as compared to post-intervention.

## Conclusions

- A limited number of participants completed the educational module and pre/post assessments.
- A lack of participation may have been due to the absence of incentivization.
- We recommend further research be conducted to address the gap in knowledge and skill of airway management in baccalaureate prepared nursing students.

## Illustration

Figure 1: Difference in Pre & Post Test: Airway Skills Checklist



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