Standardizing Nurse Training Strategies to Improve Knowledge and Confidence Level with Advanced Airway Management

Jasper Sanchez, MSN, RN, CNS, CCRN, CNRN, SCRN, AGCNS-BC; Francesca Di Cenzo, MSN,RN; Linda Oelrich, MSN, RN, CNL

BACKGROUND/SIGNIFICANCE

- Treatment of head and neck cancer often involves surgical reconstruction and may require airway management and care of tracheostomies, laryngectomies and t-tubes.
- Competent care is critical to prevent adverse events that can lead to a prolonged hospital length of stay (LOS).
- Recent studies showed a suboptimal level of knowledge and skills in advanced airway management among nurses in critical and acute care settings.

LITERATURE REVIEW

- Most studies showed that competency-based education with hands-on training sessions results in improved knowledge, skills, attitude, and self-efficacy of the attendees (Abu-Sahyoun et al., 2023; Al-Rawashedy et al., 2022; McDonough et al., 2016; Mosali et al., 2022).

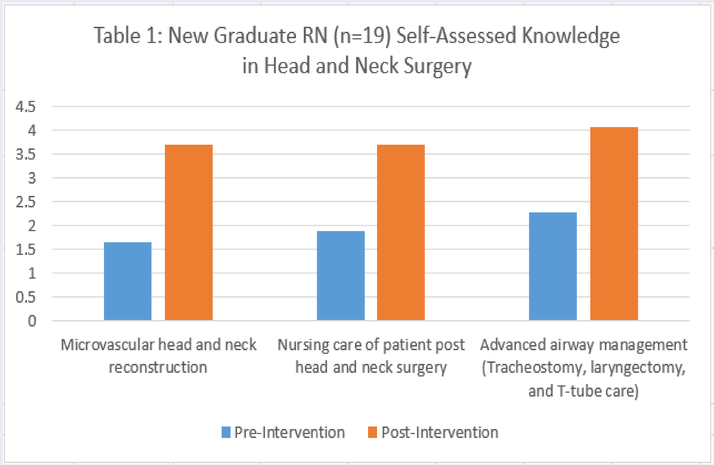
PURPOSE/OBJECTIVE

- To decrease LOS of otolaryngology patients and improve knowledge and confidence levels on advanced airway management among acute and critical care nurses in surgical units.

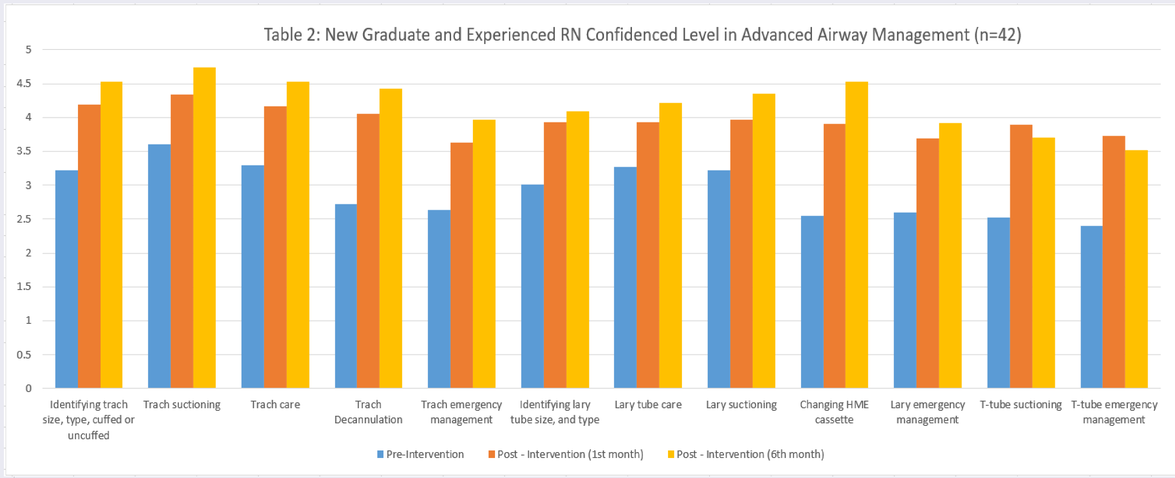
INTERVENTIONS

- Competency-based education on knowledge, skills, and attitude **(see QR code**)
  - 4-hour class for new graduate nurses
  - Competency validations through observation checklist for experienced nurses
  - Topics includes microvascular neck reconstruction, nursing care of patient post head and neck surgery, and advanced airway management
- Surveys were completed in 1st and 6th month post implementation
- The LOS of hospitalized otolaryngology patients was analyzed for 12 months

OUTCOMES

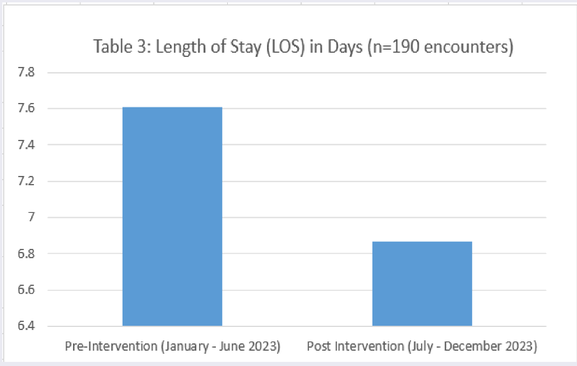


- **Table 1:** New graduate knowledge level improved from low to high (mean score from 1.9 to 3.81).
- **Table 2:** Confidence level improved from moderate to high (mean score from 2.9 to 3.9) and remained high after 6 months of implementation (mean score 4.2).



Legend: Very low (1), low (2), moderate (3), high (4), and very high (5)

OUTCOMES



- **Table 3:** The mean LOS improved from 7.61 days (pre-intervention) to 6.87 days (post-intervention).

CONCLUSION

- Findings from this project showed reduced hospital LOS and increased knowledge and confidence levels among experienced and new-graduate nurses.
- Standardizing nurse training is an effective strategy for improving knowledge and confidence in advanced airway management for head and neck cancer patients.

SCAN ME

** Scan the QR code to view Head and Neck KSA competency, observation checklist, and list of references*