

Background

- The incidence of tracheostomy placement with prolonged mechanical ventilation is increasing for children with chronic critical illness
- Shared decision-making practices are indicated when prognosis is uncertain, and quality of life is paramount**

Prior surveys of parents, medical providers, and ICU staff demonstrate that exploration of parental hopes and worries surrounding tracheostomy and parental understanding of the implications of this procedure are inadequately addressed. Additionally, little is known about how providers can best be taught skills of shared decision-making in tracheostomy.

Objectives

- To improve education about shared decision-making in tracheostomy through the development and implementation of an online learning module
- Target audience for online learning module:**
 - Pediatric and neonatal ICU providers (physicians, advance practice providers, nursing, respiratory therapy, social work)
 - Any clinical team members who participate in family/team discussions surrounding tracheostomy placement w/anticipated ventilator dependence

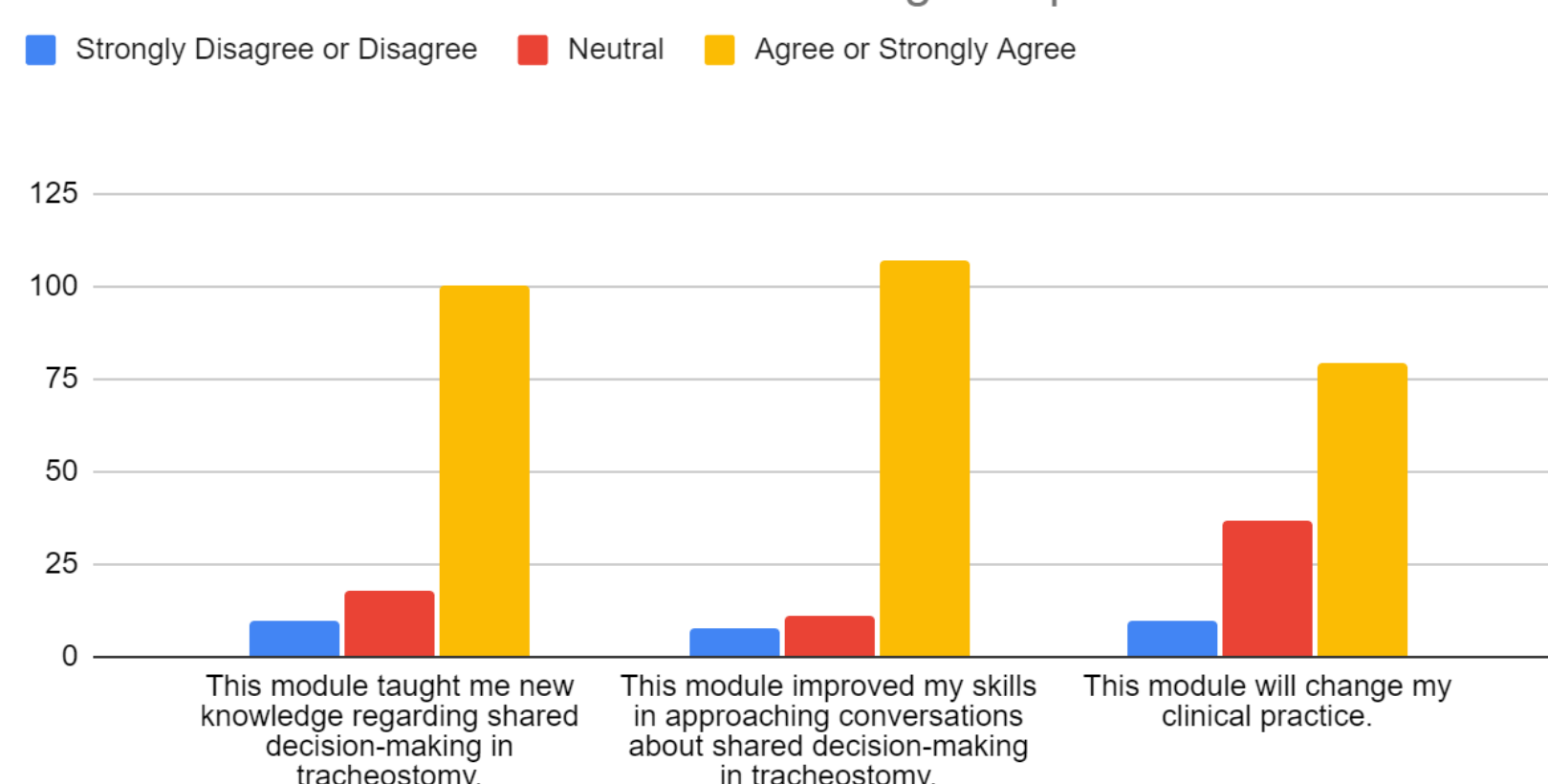
Methods

- 30-minute online learning module** developed at large academic medical center
- Module contents included:
 - Definition** of “shared decision-making in tracheostomy”
 - Examples** of parent decisions (ex. breast milk vs. formula feeding), clinician decisions (ex. antimicrobial choice for a given infection), and shared decisions (ex. experimental chemo in pt with recurrent malignancy and poor prognosis)
 - 17-minute video** of parents discussing decision-making process
 - Brief quiz** evaluating:
 - participant understanding of parental, clinician, and shared decisions
 - use of appropriate language for eliciting hopes, values, and worries from families facing a decision regarding tracheostomy placement
- Module effectiveness was evaluated by optional post-module survey**

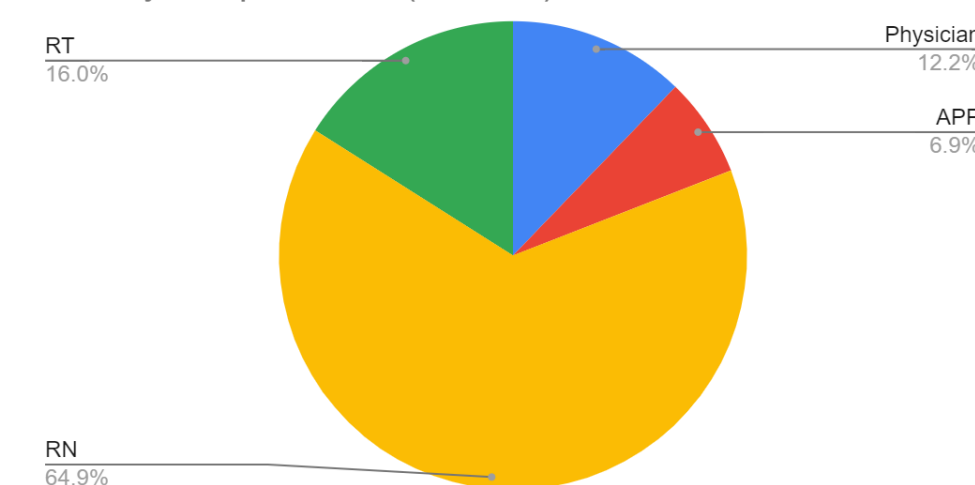
Learning Module Survey Results

- 452 participants completed the online learning module
- 131 completed the optional post-module survey (29% response rate)
- 94% of respondents would recommend this course to a colleague
- 74% of respondents would like opportunities for more education

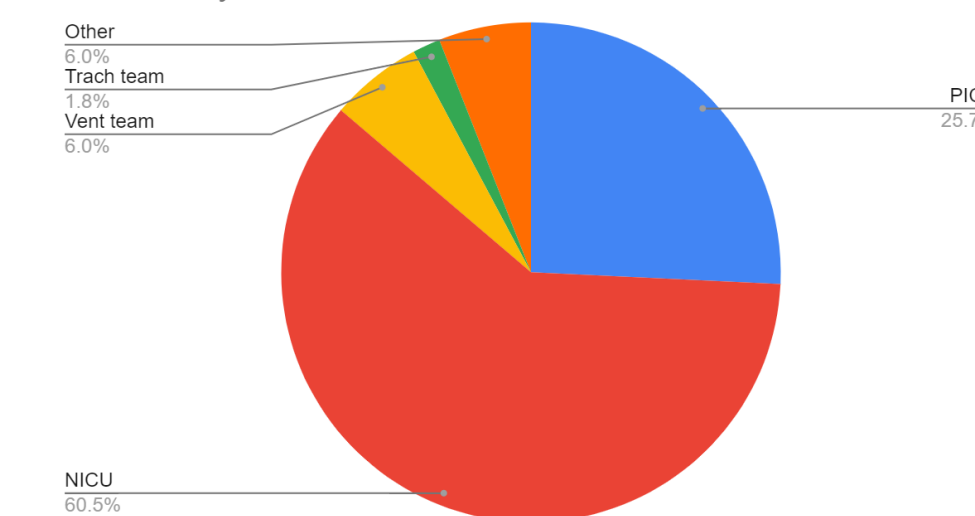
Online Module Knowledge Acquisition



Survey Respondents (n = 131)



Where do you work?



How will this module change your clinical practice?

“I like the suggested terminology in the video to help elicit hopes and worries.”
 “To be more supportive of families as they voice their thoughts, worries, goals, milestones about their child.”
 “I will be more likely to encourage physicians to speak with parents in a way that lessens the burden of decision-making.”
 “I will offer parents who are considering tracheostomy the opportunity to speak to parents of patients with a trach.”

Conclusions

- An online learning module is a promising method of teaching medical team members the principles of shared decision-making in tracheostomy
- An online learning module may be a useful tool to standardize and teach communication skills in shared decision-making more broadly
- Further work includes evaluating the impact of this module on communication skills over time in real patient scenarios
- Limitations of the post-module survey include relatively fewer physician respondents, which may decrease its utility in assessing learning module value for those clinicians leading these types of conversations at the bedside

References

- Hanauer DA, Mei Q, Law J, Khanna R, Zheng K. Supporting information retrieval from electronic health records: A report of University of Michigan's nine-year experience in developing and using the Electronic Medical Record Search Engine (EMERSE). *J Biomed Inform.* 2015 Jun;55:290-300. PMID: 25979153.
- Watters KF. Tracheostomy in infants and children. *Respir Care.* 2017;62(6):799-825. doi:10.4187/respcare.05366
- Kon AA, Davidson JE, Morrison W, Danis M, White DB. Shared decision making in ICUs: An American College of Critical Care Medicine and American Thoracic Society Policy Statement. *Critical Care Medicine.* 2016;44(1):188-201. doi:10.1097/CCM.0000000000001396

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