

Teaching Transnasal Endoscopy During a Pandemic: Transition to Remote Learning Using Plumber's Endoscopes

Shari Berkowitz Ph.D., CCC-SLP & Kaitlin Brooks Ph.D., CCC-SLP

Purpose:

- Due to the Covid-19 pandemic of 2020, the endoscopy portion of the Mercy College Dysphagia course was offered online only.
- Our study examined the teaching methods used and equipment needed to transition to online teaching of a traditionally hands-on, high touch skill.

Literature Review:

- Simulated learning experiences are widely used across the health professions to supplement clinical experiences (Curl et al., 2016; Hansen & Bratt, 2017; McGaghie et al., 2011).
- SLP students reported increased confidence levels, enhanced preparedness for clinical placements, opportunities for repetitive practice, and greater exposure to a wider variety of cases through simulation training (Carter, 2019; Hill et al., 2013; Penman et al., 2020).
- Due to the COVID-19 pandemic, many colleges were forced to rapidly move their courses from face-to-face to fully online, creating a barrier to teaching dysphagia assessment and management using transnasal endoscopy.

Methods:

- Students (N = 43) received the standard didactic lectures and instruction on passing the endoscope.
- Students produced videos independently with these plumber's endoscopes to mimic the activities typically undertaken in the simulation laboratory with mannequins.



Results:

- Pre- and post-measures and qualitative data from the students showed that students increased in confidence and in interest in this aspect of the field.
- All students demonstrated some practical competencies for handling the endoscope, passing the endoscope, and visualizing objects.
- Students' creative scoping videos are available as supplementary data through the following link:
https://www.youtube.com/playlist?list=PLZBARpPyjwflsrzVQe_uwapVrDcnvPDt3Y

Qualitative Analysis:

- Out of 32 students, 30 (94%) expressed fear, primarily of harming a patient, on the pre-test. On the post-test, 26 (81%) reported a decrease in their fear.
- All except 3 students (87%) reported an increased interest in endoscopy in response to the training.
- Half of the students reported achieving their personal goals, which included learning to pass the endoscope independently, learning more about anatomy/physiology, honing diagnostic and treatment skills and learning about swallowing disorders.

Conclusions:

- Adding plumber's endoscopes to graduate programs' lab equipment is a way to develop student engagement with the rudiments of manipulating an endoscope.
- This is helpful when access to a medical-grade endoscope is limited, or inaccessible due to a pandemic.
- Graduate programs without endoscopes might consider teaching with plumber's endoscopes as a first step.