Report of a Realistic Simulation Training in Using Bougie Guide for Endotracheal Intubation

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Abstract : Some patients with COVID-19 disease and difficult airway characteristics undergo to endotracheal intubation (ETI) procedure. The tracheal introducer, known as the bougie guide, can aid ETI in patients with difficult airway pattern. Realistic simulation (RS) is a methodology utilized for healthcare professionals training. To improve skills in using the bougie guide of physicians from Recôncavo da Bahia region in Brazil, during COVID-19 outbreak, RS training was carried out. Simulated scenario included the Nasco Lifeform realistic simulator for ETI and a bougie guide introducer. Training was a capacitation program organized by the Health Department of Bahia State. Objective: To report effects in participants´ self-confidence perception for using bougie guide after a RS based training. Methods: Descriptive study, secondary data extracted from questionnaires. Priority workplace and previous knowledge about bougie were reported on a preparticipation formulary. Participants also completed pre- and post-training qualitative self-assessment (10-point Likert scale) regarding to self-confidence in using bougie guide. Distribution analysis for qualitative data was performed with Wilcoxon Signed Rank Test, and self-confidence increase analysis in frequency contingency tables with Fisher's exact test. Results: From May to June 2020 a total of 36 physicians participated of training, 25 (69%) from primary care setting, 32 (89%) with no previous knowledge about the bougie guide utilization. For those who had previous knowledge about bougie pre-training self-confidence median was 6,5, and 2 for participants who had not. In overall there was an increase in self-confidence median for bougie utilization. Median (variation) before and after training was 2.5 (1-7) vs. 8 (4-10) (p <0.0001). Among those who had no previous knowledge about bougie (n = 32) an increase in self-confidence greater than 3 points for bougie utilization was reported by 31 vs. 1 participants (p = 0.71). Conclusions: Most of participants had no previous knowledge about using the bougie guide. RS training contributed to self-confidence increase for using bougie for ETI procedure. RS methodology can contribute for training in using the bougie guide for ETI procedure during COVID-19 outbreak.

Keywords : bougie, confidence, COVID-19, endotracheal intubation, realistic simulation

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