Abstract

Background and Objectives: Principled, safe and standard endotracheal suctioning (ETS) performed by nurses can reduce complications, duration of hospitalization and mortality in critically-ill patients in the intensive care unit (ICU). The present study was conducted to determine the effect of training on nurses' performance in terms of the ETS of patients in the ICUs of Imam Khomeini Medical Educational Center in the city of Ardabil, Iran based on clinical indicators.

Materials and Methods: The present single-blinded randomized clinical trial was conducted on 47 nurses working in the ICUs of Imam Khomeini Medical Educational Center in Ardabil in 2018-19. The participants were selected using the census method, and randomly assigned into an intervention group and a control group. Data collection tools included a demographic information questionnaire and a standard performance checklist for nurses in the field of endotracheal and tracheostomy suctioning. The collected data were analyzed in SPSS-22 using statistical tests.

Results: The mean score of the nurses' performance in terms of ETS was 12.04 ± 3.08 in the intervention group and 12.29 ± 2.38 in the controls (P=0.75) before the training, and 15.13 ± 2.78 in the intervention group and 12.16 ± 2.82 in the control group (P<0.001) one month after the training. Comparing the post-intervention mean score of performance in ETS with the pre-intervention mean score in the two groups using the Wilcoxon test suggested significant differences in the intervention group (P<0.001). The presence or absence of clinical indication of patients before suctioning and the relationship between demographic characteristics and whit the level of performance of the research samples were analyzed by using Chi-square and Fisher exact chi-square, respectively, which was not statistically significant before and after the intervention.

Conclusion: The results obtained showed that teaching ETS standards improves the performance of nurses in the ICU. The health system planners and policymakers are therefore recommended to take measures to include these standards in the training of nurses.

Keywords: mechanical aspiration, training, performance, nursing, ICU