Comparative assessment of the effects of securing endotracheal tube with endotracheal tube holder devices and the routine method on the quality of hospital in 2002-2011s airway care in the intensive care unit (1389)

A thesis submitted in partial fulfillment of the requirements for the Degree of MASTERS of Nursing

By: Haghnazarian Shakeh

Supervisor: shohadai Sayd Mahnaz

Co-Supervisor: Dr. Farahani Ashghali Mansooreh

Date: January 2011
Abstract:

Background: Mechanical Ventilation in the intensive care unit is one of the most important interventions. Artificial airways are used to facilitate ventilation and endotracheal tubes are usually used for this matter. Unplanned extubation is one of the major complications of oral endotracheal intubation. In addition to extubation, tube movement can also cause trauma to oral cavity. Stabilizing the ETT is the most important factor that can prevent both unplanned extubation and oral trauma.

Purpose: To compare the effects of two oral endotracheal tubes securing methods on the quality of airway care.

Methods and Materials: The quasi-clinical trial with control group was done on the patients in the intensive care units who were divided randomly into test and control groups. In the end the patients were matched based on the demographic indicators. In the test group the ETTs were stabilized by the holders and the control groups were stabilized by the routine method (gauze). 7 indicators of Quality of care were studied: unplanned extubation, ETT movement and oral trauma. A self-prepared tool was used to report unplanned extubation and ETT movement. A modified version of Oral Assessment guide was also used for the oral trauma assessment. Data was analyzed using descriptive statistics, chi square test and independent t-test and SPSS version 14.

Results: Data was collected from 162 intubated patients. The results showed no significant difference in the ETT extubation rate (p=0.648); and oral trauma. However ETT movement was significantly less in the test group. Although oral trauma was increased in each group after stabilizing but comparing both groups there was a significant difference in the lips (p=0.057) and gingival (p=0.001) trauma, which means that both methods increased oral trauma.

Conclusion: This study showed that the use of ETT stabilizing devices was significantly better in controlling tube movement in comparison with the routine method. It must be noted that not only the method of stabilizing the ETT may affect the quality of airway care, but other nursing care categories can also have an effect on the quality of airway care. Therefore doing more studies on other factors affecting the airway care quality is recommended.

Keywords: ICU, Endotracheal tube, stabilizing, ETT holder, Quality of airway care