

Comparison of clinical education for prevention of ventilator-associated pneumonia in both face to face and workshop methods on the knowledge and practice of nurses in the ICU in 1392

A Thesis

Presented for the  
Degree of Master of Sciences  
In Critical care nursing

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## **Abstract**

### **BACKGROUND:**

Ventilator-associated pneumonia (VAP) is the most nosocomial infection in the intensive care units (ICU). For as much as, the nurse's role in preventing this complication is very important. The present study was conducted to compare the effect of face to face training and workshops by clinical guideline in prevention of VAP, on the nurse's level of knowledge and practice.

### **METHODS AND MATERIALS:**

In this quasi experimental study, the nurse's level of knowledge and practice in ICUs were measured in two groups of face to face training (35 nurses) and workshops (40 nurses) by using clinical guideline in prevention of VAP in one of the hospitals of Shiraz University of Medical Science. The level of knowledge and practice in each group, was assessed by self report questionnaire, knowledge

questionnaire and also direct observation of practice, before and after training. Data were analyzed with descriptive statistics (mean and frequency) and analytical tests (paired t-test, independent t-test, McNemar test, Fisher's exact, sign and Chi-square test)

### **RESULTS:**

The incidence of inappropriate pressure of cuff in the tracheal tubes and tracheostomy tube were significantly reduced after training compared with before training. While, results indicated the significant differences in two groups of face to face training and workshop ( $p < 0/001$ ). Furthermore, the frequency of not performed suctioning by nurses in the face to face group ( $p = 0/008$ ) and the workshop group ( $p = 0/002$ ), which showed the significant difference compared to the before training. The nurses' average level of knowledge in both groups from 22.36 (before training) was promoted to 93.93 (after training) but regarding hand washing and hand rub in contact with the patient before and after training, the frequency was low and inappropriate so, no significant difference were observed. Although, both methods of the face to face training and workshop were very effective on nurses' level of knowledge and practice, but by comparing these two methods and relation between the variables of the study no significant difference were found.

### **CONCLUSION:**

Monitoring and evaluating the intensive care units in the case of principles of Ventilator-associated pneumonia prevention, particularly for cuff pressure, appropriate suctioning and disinfecting hands is essential and training nurses is highly effective in preventing Ventilator-associated pneumonia.

**Key words:** Ventilator-associated pneumonia, intensive care units, face to face training, workshop training, nurse, knowledge, practice.