

Dyspnea Assessment of Mechanically Ventilated Patients in the Intensive Care Unit

Loris A. Thomas PhD(c), ARNP, BC
University of Florida College of Nursing
PO Box 100197
Gainesville, FL 32610-0197

Key Words – dyspnea assessment, mastery, mechanical ventilation

Mechanically ventilated patients in the intensive care unit (ICU) frequently complain of dyspnea. Nursing interventions for ICU mechanically ventilated patients are based on nurses' assessments of the patient's dyspnea. Accurate assessments of dyspnea should aid in the choice of more effective interventions that lead to successful weaning from the ventilator. Unnecessarily prolonged mechanical ventilation increases the risk of morbidity and mortality as well as unnecessary hospitalization costs. Most ICU units do not use standard dyspnea measurement tools, which leads to inaccurate dyspnea assessment.

The purpose of this study was threefold:

1. To determine the relationship between patient self-report and the nurses' assessment of patient dyspnea level.
2. To determine the relationship between reported dyspnea level and mastery, self-efficacy, number of days mechanically ventilated, and number failed weaning attempts.
3. To determine the relationship between patient mastery and self-efficacy.

A nonprobability sample of 20 ICU patients was studied before, during, and after mechanical ventilation. Patients and nurses were simultaneously tested regarding each patient's dyspnea level four times during the study using a standard visual analog scale. Patient mastery levels were evaluated at baseline and post-extubation only.

Study results revealed significant correlations between Mastery Scale (MS) scores and these study variables: baseline patient Dyspnea Visual Analog Scale (DVAS) scores, self-efficacy scores, number of days mechanically ventilated, and number of failed weaning attempts. Nurse DVAS scores during weaning were significantly correlated with number of failed weaning attempts. Significant differences were found in patient mastery levels at baseline and post-extubation, and between nurse and patient DVAS scores during weaning.

The study supports use of the MS tool and previous research regarding a change in mastery levels with illness uncertainty. The DVAS is an effective tool for dyspnea assessment in the critically ill. Positive relationships between nurse DVAS scores and the number of failed weaning attempts support the need for the use of a standard dyspnea measurement tool in the care of mechanically ventilated patients.