

## Abstract

**Purpose:** Effects of the 2020 pandemic revealed gaps in the knowledge of progressive care nurses on treatment for respiratory distress and dyspnea. This quality improvement project sought to increase the knowledge and self-efficacy of nurses caring for patients experiencing dyspnea to improve care and reduce intensive care unit (ICU) upgrades related to respiratory distress.

**Methods:** This was a mixed methods quality improvement project implemented over an 8-month period in a 38-bed inpatient medical-surgical progressive care unit within an academic acute care hospital. The intervention was a 40-minute presentation, measurement utilized a pretest–posttest quantitative design comparing a knowledge assessment and self-efficacy scale administered at baseline and after the intervention. Retrospective chart review measured 3 months of ICU upgrade data at baseline and post-intervention.

**Results:** 20 nurses were interviewed for qualitative analysis, which identified four major learning needs; early signs and symptoms of respiratory distress, assessment and treatment of dyspnea, respiratory equipment, and emergency management. 39 registered nurses employed on the pilot unit participated in the intervention. The quantitative sample was majority female and Hispanic with <5 years of nursing experience. Improvement was demonstrated in knowledge scores (59.2% vs 75.3%,  $p=.001$ ) and mean self-efficacy scores (42.66 vs 47,  $p<.001$ ). ICU upgrades reduced by 46.1%.

**Conclusions:** This pilot study found that incorporating qualitative data in the design of an educational intervention resulted in statistically significant improvements in knowledge, self-efficacy and led to a clinically significant decrease in ICU admissions from the pilot unit.

**Implications:** Nurses need additional support to effectively apply palliative principles to the acute care setting to prevent unnecessary upgrades to ICU and improve the quality of care.

Incorporating a translational model in the planning and implementation of quality improvement initiatives may help to shorten the time between research discovery and successful assimilation into bedside nursing practice.

**Keywords:** Dyspnea, Nursing, Acute Respiratory Distress, Mixed Methods, Educational Intervention