Nursing In-service Teach-back on Proper Inhaler Technique and COPD Discharge Planning

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Background

COPD exacerbations have detrimental effects to healthcare cost and mortality rates (Hurst et al., 2020). COPD during the rise of COVID is associated with increased risk of readmissions (Calverley, 2021; Portillo et al., 2018).

Currently, there are no standardized COPD discharge planning; however, there are emerging practices and interventions.

Hence, to improve COPD patient discharge education, a nursing in-service teach-back focused on COPD information on proper inhaler technique and discharge planning was implemented for progressive care unit (PCU) nurses in a U.S. urban hospital.

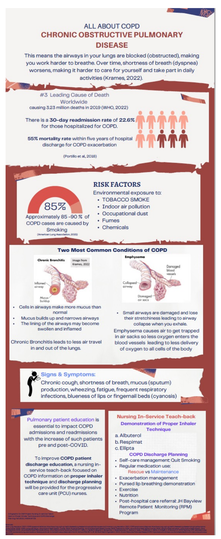
Aims of the Project

Aim 1:
Enhance **PCU nurse knowledge** on **COPD** understanding of diagnosis, management, and follow-up discharge of COPD patients.

Aim 2:
Increase **PCU nurse self-efficacy** and satisfaction with their COPD patient teaching.

Description of the Intervention

The designated PCU nurse educator conducted a one-time in-service to each PCU nurse on best practices in COPD discharge education and demonstration of proper inhaler technique, and subsequently required teach-back from the PCU nurses.



PCU Nurse Educator One-on-one Teach-back:

1. Education on COPD background information.
2. Demonstrations on proper priming and inhaler use of the Albuterol with spacer, Spiriva, and Respimat.
3. COPD patient discharge teaching with use of handouts.
4. PCU nurses to provide teach-back demonstrations on proper inhaler use and COPD patient discharge teaching to the nurse educator.

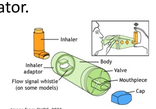


Image from CHOC, 2022

Multidisciplinary Approach:

- Teaching material contents organized from the hospital's Krames program with consultation from the hospital's COPD council and nurse educator.
- Proper inhaler technique education, demonstration, and equipment provided by the lead respiratory therapist to the nurse educator for teach-back.

Graham's Knowledge-To-Action Framework action plan:
Its utilization allowed for implementation and evaluation to refine, change, and execute a well-designed tool kit for interventions (White et al., 2021).

Description of Data Collection and Analysis

Measures on PCU nurse knowledge and confidence on COPD patient education:

1. COPD Educator Post-Course Evaluation by the American Lung Association
2. Nursing Care Self-Efficacy Scale (NCSCES by Welsh, 2014)

35 PCU nurses completed both surveys during Pre-intervention and Post-intervention in a span of 3 months.

A **Descriptive Comparison Analysis** to determine **Clinical Significance** based on:
Pre and Post-intervention survey results on PCU nurse knowledge and confidence on COPD patient education.
The analysis will determine if two different timepoints of the intervention had an impact.

Outcomes Measures and Results

Lessons Learned

Pre and post in-service teach-back surveys resulted in an increase of PCU nurse knowledge and confidence on COPD patient education.

- Significant increase in knowledge in COPD management and COPD device demonstration
- Enhanced nurse self-efficacy in fundamental and complex care nursing
- Most impact on nurse self-efficacy in teaching patients about optimal health and using resources to meet patient demands
- Most increase in COPD knowledge: ages 18-29 and 0-9 years RN experience
- Most increase in confidence in fundamental and complex nursing care: 10-19 years RN experience and ages 60 and over

The nursing in-service teach-back provided PCU nurses with COPD self-management discharge education, demonstration of proper inhaler technique, and posthospital coordination expanding telehealth and home services.

Implications for Practice

Teach-back is an effective method in enhancing nurse self-efficacy and COPD knowledge. It promotes a better understanding of inhaler use and COPD discharge planning.

Future developments should include improved clinical outcomes and transitional care of post-discharged COPD patients as measured by post-discharge readmission rates.

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