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New University of Colorado College of Nursing study may help some people breathe easier, live longer

Research finds better communication, health protocols can help people fighting deadly respiratory disease

Aurora, Colo. (May 13, 2021) -- While news headlines report a lack of oxygen worldwide is affecting our ability to help critically ill COVID-19 patients, historically respiratory disease is the fourth leading cause of death in the United States (CDC). The Centers for Disease Control and Prevention say more than 12 million adults in the U.S. struggle to breathe every day and have been diagnosed with Chronic Obstructive Pulmonary Disease (COPD). Medication and oxygen therapy have been proven to help patients breathe easier and increase survival rates, yet, as many as 55% of patients don't fully understand or follow medical instructions for treatment. Another problem reported in recent studies is that one-third of patients did not feel knowledgeable enough to operate oxygen equipment (Moy, 2019). New research by the University of Colorado College of Nursing could change that.

The [study entitled](#), "A quality improvement project to increase oxygen therapy adherence in patients newly prescribed oxygen at discharge," by Kelly Henrichs, DNP, RN, GNP-BC and Mary Beth Flynn Makic, PhD, RN, CNS was recently published in MEDSURG Nursing.

"Our research found we can improve the quality of lives of people with COPD with simple changes in nursing and therapy protocols and patient education about how to follow treatment for oxygen therapy," said Henrichs and Makic. "This kind of research can improve the number of patients who survive this disease and improve negative outcomes from basic lack of knowledge about home oxygen care."

The research discovered 33% of the time, nurses sent patients home with unclear, incomplete or inconsistent instructions about oxygen therapy, and at times providers did not accurately chart the necessity for long term oxygen therapy at discharge. The former problem could lead to poor health outcomes and patient noncompliance with treatment and the latter could lead to denied insurance claims, according to the study. Researchers also discovered different methods and processes in which the respiratory therapists were setting up the oxygen at discharge making the process "inconsistent and inefficient."

Most of those issues were fixed during the study period with positive results. Once researchers consolidated patient education materials called Care Notes® for patients and made them easier to

understand, more patients followed their treatment plans and understood the rationale for treatment and safety precautions. Specifically, patient self-reported adherence to oxygen increased from 16.9 hours to 18.1 hours in a 24-hour period.

The study also found a patient was 1.2 times more likely to recognize symptoms of hypoxia after the project. Researchers now suggest health professionals, including nurses, be given larger roles in communicating with and teaching patients about oxygen therapy.

Researchers also changed the way respiratory therapists perform oxygen set up. With new policies and procedures in place, the number of patients satisfied with the process improved from 70% to 76% and patients were 1.5 times more likely to understand the rationale for oxygen therapy.

The project results indicate that teaching patients more about oxygen treatment and rationale and new staff protocols can improve patients adherence to and understanding of their oxygen therapy, with the ultimate result of saving more lives.

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