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A Chronic Obstructive Pulmonary Disease Self-Management Packet to Reduce 30-Day Readmissions

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
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Abstract

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MSN, University of South Alabama, 2012

Project Submitted in Partial Fulfillment

Of the Requirements for the Degree of

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Abstract

Chronic obstructive pulmonary disease (COPD) signifies a significant public health challenge that is both avoidable and treatable. There was no standardized education offered to the COPD population at the practice location. The scope of the project encompassed standardizing education by developing a self-management packet for the COPD patients. The goal of this project was to examine how the development of a standardized COPD self-management packet enhances the quality of care and strategizes reducing 30-day readmissions compared to nonstandardized delivery of education. Orem's self-care theory and Bandura's self-efficacy concept were used to explain the principle of self-management, while Rosswurm and Larrabee's evidence-based practice model was used to guide practice change. The U.S. Prevention Service Task Force's level of evidence hierarchy was chosen to categorize the strengths and weaknesses of the evidence referenced for this project. Postdevelopment surveys using the Likert scale were distributed to the facility's COPD committee, and a 70% response rate of *strongly agreed* to all questions was achieved. There were no adverse responses, and the packet was approved unanimously. Based on the positive responses, the packet will be easily adapted and beneficial in practice. The recommendation is to pilot the packet on the medical-surgical unit and follow-up postdischarge with phone calls to ascertain patients' perspective of the packet. Utilization of the education packet will lead to positive social change by affording the stakeholders self-management awareness and positive outcome measures including reducing the COPD 30-day readmission rate, curtailing economic strains, and promoting positive patient-centered relationships.

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Section 1: Nature of the Project

Introduction

Chronic obstructive pulmonary disease (COPD) is a principal source of morbidity and mortality globally, and projections indicate that COPD will become the third most likely reason for death in the world by 2030 (Bentsen, Langland, & Holm, 2012). Increasing the capability of patients to identify and control their disease using patient education is not only a healthcare precedence but also a critical part of care for chronic conditions such as COPD (Bourbeau, 2008; Guo, Huang, & Hsu, 2013). Bourbeau (2008) viewed patient self-management as comprising partnerships between patients and healthcare providers and stated that the practice should be encouraged while the individual is still in the acute healthcare setting. A Cochrane Review established that self-management education might considerably impact the lessening of COPD-related hospital inpatient stays and is clinically appropriate (Bourbeau, 2008).

Nature of Project

Background

The Global Initiative for Chronic Obstructive Lung Disease (GOLD; 2016) explained that COPD encompasses a blend of continuing and gradually advancing breathing conditions comprising emphysema and bronchitis of the chronic nature. Clinically, the disorder is expressed as a substantial restriction in airflow, gauged by a diminished expiratory capacity (GOLD, 2016). The disease has an association with a heightened chronic inflammatory response in the airways (GOLD, 2016; VADOD, 2014).

Although COPD is mainly a lung condition, current research has shown a connection between systemic inflammation and symptoms. The VADOD (2014) defined COPD as stemming from an inflammatory development in the distal airways and pathologic variations ensue in both large and small airways and the terminal respiratory unit. The clinical guidelines offered that COPD arises from extensive contact with pulmonary irritations and in America, 80% of people's contact with primary or secondary smoke is the fundamental contributory cause of the escalation of COPD (VADOD, 2014). A person can surmise from these clinical guidelines that chronic obstructive pulmonary disease has an extensive public health influence on the general population of the United States and that COPD is a chief cause of mortality in the United States. The global occurrence of moderate to severe COPD is projected in as high as 10% of the population (GOLD, 2016). It is important to take note of the repercussions of the disease on health care resources. The VADOD stated that U.S. expenditure on COPD is $49.9 billion with the majority spent on upfront health care.

The VADOD (2014) identified that a larger volume of research is directed towards the causal mechanisms and efficacy of many treatment approaches to COPD. The growing amount of COPD research preceding the new interpretation of the disease and influential management tactics permits patients and providers to be positive that they can control COPD effectually to afford patients a better quality of life (QOL). Self-management plays a pivotal role in improving QOL (VADOD, 2014).

The practice location for the DNP project was in an urban community in the southern United States. The organization was a 120-bed teaching hospital and Level 1

trauma center with a burn unit and primary stroke care center. I worked with the acute medical-surgical nurse manager and collaborated closely with the director of clinical resources, the director of quality management, and the director of respiratory care. The project took place in the 34-bed medical-surgical unit, which consisted of populations such as COPD, renal disease, sickle cell, congestive heart failure (CHF), and diabetic patients.

Social Change Implications

The GOLD (2016) stated that COPD signifies an important public health opposition that is avoidable and improbable. The disease is a chief reason for persistent illness and death all over the globe. COPD causes many people years of agony, and they die prematurely from it or its impediments (GOLD, 2016). The literature showed that the disease causes a considerable economic and social burden.

Peruzza et al. (2003) confirmed that the interval between onset of disability and death is lengthening due to progressive improvement in treatment, and COPD patients can live for an extended time despite severe respiratory impairment and disability. COPD regularly impairs elderly patients in their social life, mental function, and activities of daily living (ADLs; Peruzza et al., 2003). Dyspnea on exertion often causes patients with COPD to reduce their ADLs to lessen the amount of their distress (Reardon, Lareau, & Zuwallack, 2006). The lessening in ADLs leads to deconditioning, which makes the dyspnea worse. Reardon et al. (2006) expressed that both dyspnea and fatigue have a significant influence on health-related quality of life (HRQOL). HRQOL

encompasses manifestations, ability to perform normal daily activities independently, and an evaluation of their influence on the individual (Reardon et al., 2006).

Education can play a role in cultivating skills, the capacity to cope with illness, and health status (GOLD, 2016). Forming a good rapport between healthcare professionals and patients is essential to delivering effective care and promoting self-management (Barnett, 2009). By introducing self-management behaviors to COPD patients, the nursing staff at the project site will contribute to the overall goal of enhancing QOL for this target population.

Problem Statement

The organization under study had intact, disease-specific education packages for the CHF, diabetic, and stroke patients. There was no standardized education offered to the COPD population. Patients with COPD received unstructured, inconsistent education from registered nurses throughout the facility. The education delivered by the staff was not based on any of the recommended guidelines provided by the American Lung Association or GOLD. Standardization will enhance the quality of care for the COPD patient and if not considered, may negatively affect the care of the patient. Before the inception of this project, the organization's COPD readmission rate was 20.4%, which placed it about the same as the national benchmark of 21% (Centers for Medicare & Medicaid Services, 2016a). The organization must be cautious in adhering to guidelines set forth by CMS as stiffer financial penalties for excessive readmissions are now mandated (Centers for Medicare & Medicaid Services, 2016b).

The education in the packet will be primarily distributed and utilized by nursing staff, bringing about a more individualized and comprehensive approach to holistic cares for the COPD population. Education and exploring self-management will also aid in identifying barriers to self-management at the patient level and systemic levels. Examples of barriers at the patient level include depression and fatigue, and at the systemic level, include financial problems, health care costs, lack of family support and transportation issues (Langer, Chew-Graham, Hunter, Guthrie & Salmon, 2013).

Purpose Statement

The purpose of this DNP project was to streamline and standardize delivery of education to the COPD population by developing a self-management education packet. My intention was for staff to utilize the packet at the aggregate level. The packet aligns with other disease process self-management packets already in place within the organization. I developed the packet based on nationally-recognized clinical practice guidelines and evidence-based practices and incorporated recommendations from the American Lung Association.

The practice-focused question I developed to guide this project was: In chronic obstructive pulmonary disease patients within an acute care setting in the southern United States, how does development of a standardized COPD self-management packet (as recommended by the American Lung Association) enhance the quality of care and strategize reduction of 30-day readmission rates compared to nonstandardized delivery of education? To answer this question, I evaluated the finalized self-management education

packet using stakeholder surveys. The summative assessment was based on Likert scale questions.

The education packet adds to the standardization of specific disease QOL metrics among various chronic illnesses at the facility. The actual worth of disease management, based on enhanced interaction, evidence-based treatment, practices, and constancy to standards, fosters a patient-focused treatment that promotes shared self-management (Corsello & Tinkleman, 2008; GOLD, 2016). An expected result of the packet is for the patient to experience an enhanced understanding or ability of self-management after discharge leading to a decline in the 30-day readmission rate at the facility (see Appendix A).

Nature of the Doctoral Project

The 34-bed medical-surgical unit had piloted other self-management packets successfully before this project. The interdisciplinary team is comprised of physicians; medical residents; nurse leaders; care managers; and dietary, social work, respiratory therapy, pharmacy and contributing disciplines as needed. Some of the primary diagnoses include cerebral hemorrhage or infarct, heart failure, sickle cell, chronic lung disease, HIV-related illnesses, cancer, pancreatitis, diabetes, and hypertension. Before the project, the most current published data for the organization's COPD readmission rate was 20.4% (data acquired from Hospital-Compare; 7/01/12 to 6/30/15 to include 31 cases; Centers for Medicare & Medicaid Services, 2016a). Interventions employed by the organization to help curtail 30-day COPD readmissions were a readmission

screening tool and follow-up discharge phone calls. The addition of an education packet in combination with these should aid in producing further positive outcomes.

The Sources of Evidence

I searched the literature in the field using the keywords of *self-efficacy, self-management and COPD, self-care and COPD,* and *COPD education as a strategy for self-management* using the following online databases: OVID Online, CINAHL, MEDLINE, PUBMED, and the Cochrane Library. The American Lung Association (guidelines on self-management for COPD), Centers for Medicare and Medicaid (National COPD readmission rates), and The Joint Commission (30-day COPD readmission rates and all-cause readmission guidelines) were also sources reviewed. I also reviewed the National Guideline Clearinghouse (VADOD) Clinical Practice Guideline for the Management of COPD and GOLD evidenced-based strategy documents for COPD management. Various search engines such as Google Scholar and Yahoo were used to access these online sites. Studies highlighted in the literature review will include three systematic reviews highlighting self-management interventions and the impact of education on hospital readmissions and an exploratory, descriptive survey discussing self-efficacy and COPD.

Approach to Analyze Evidence

I chose the U.S. Prevention Service Task Force's (USPSTF) level of evidence hierarchy to categorize the strengths and weaknesses of the evidence referenced for this project. Boswell and Cannon (2011) showed the hierarchy consisting of five levels (1 being strongest and 5 being suggestive or weakest). The USPSTF (2016) consists of 16

participants who volunteered and are acknowledged national authorities in prevention and evidence-based treatment. The members have expertise in, but not limited to, family practice, geriatrics, internal medicine, pediatrics, and nursing (USPSTF, 2016).

The purpose of this DNP project was to streamline and standardize delivery of education to the COPD population. I did this by developing a self-management education packet based on evidence using the USPSTF hierarchy of evidence. The packet is anticipated to close the practice gap of using inconsistent education and use evidenced-based guidelines for education.

Significance

This DNP project has significant implications for nursing practice, both to the facility and patients. In the following subsections, I will highlight these implications. The education packet will empower patients to become familiar with and embrace self-care. The packet will also aid in concrete outcome measures such as a reduction in COPD 30-day readmissions.

Stakeholders

Stakeholders that may be impacted by the project include COPD patients, families and caregivers, the multidisciplinary staff, and administrators of the facility. The facility will benefit from the project with positive outcome measures, including a reduction in the COPD 30-day readmission rate, and the results may also aid in coordination of care. The staff will benefit from having an evidenced-based standardized way of delivering the education, which will promote positive patient-centered relationships with the patients. The introduction of self-management strategies

to the patients promotes independence and contributes to improved QOL. Nursing staff may use the education packet in all inpatient care areas of the facility.

Implications for Social Change

Per GOLD (2016), COPD is a principal cause of disease and death internationally and ends in a financial and civil strain that is both massive and growing daily. COPD is the result of years of cumulative exposures and is related to a substantial economic burden (GOLD, 2016). In the European Union, COPD makes up for 56% of the cost of respiratory disease with the overall direct expenditures of pulmonary illness calculated at 6% of the entire healthcare financial plan (GOLD, 2016). In the United States, as expressed by GOLD (2016), the projected direct expenses of COPD are $29.5 billion with the incidental expenses costing $20.4 billion. COPD exacerbations, as conveyed by GOLD, account for the greatest portion of the entire COPD affliction on the U.S. health care system. There exists a noticeable direct association between the seriousness of COPD and the cost of care, and the allocation of costs vary as the disease advances (GOLD, 2016).

According to Wagg (2012) the principle of self-management emerged in the last half of the 20th century as a cardinal strategy for progressing care for long-term conditions. Little data are available that shows the value of self-management in COPD, while programs for some chronic conditions such as diabetes are well recognized (Wagg, 2012). The statistics I provided earlier in this subsection demonstrate the impact of COPD on societies and the need to address its treatment.

Prevention of Exacerbations

COPD exacerbations are frequently avoidable. Influenza and pneumococcal inoculations, comprehension of immediate treatment, smoking cessation, and management with bronchodilators that are long-acting, are all treatments that shorten some COPD exacerbations and hospital admissions (GOLD, 2016). GOLD (2016) also recommended that providers advise patients to exercise and that providers should consider apprehension, despair, and social dilemmas. Prevention is a key factor when attempting to curtail repeated declining episodes in the disease process (GOLD, 2016).

Summary

COPD is projected to become the third reason for death by 2030 since COPD is a principal source of morbidity and mortality worldwide. COPD ends in a financial and social problem that is extensive. In the United States, the projected direct expenditures of COPD are $29.5 billion with secondary expenditures of $20.4 billion.

The principle of self-management appeared in the last half of the 20th century as a key strategy for progressing care for long-term conditions. There is a need to encourage self-management while the individual is still in an acute care healthcare setting. The practice location for this DNP project was in an urban community in southern U.S. The organization was a 120-bed teaching hospital and Level 1 trauma center with a burn unit and primary stroke care center. At the time of this study, there was no standardized education offered to the COPD population there. Before the project, the organization's COPD readmission rate was 20.4%, which placed it about the same as the national

benchmark of 21%. With this project, I aimed to standardize education by developing a self-management packet for the COPD patients at the aggregate level.

Section 2: Background and Context

Introduction

The organization under study had intact, disease-specific, education packages for the CHF, diabetic, and stroke patients, but there was no standardized education offered to the COPD population. The organization's COPD readmission rate before this project was 20.4%, which placed it about the same as the national benchmark of 21% (Centers for Medicare & Medicaid Services, 2016a). The organization must be cautious in adhering to guidelines set forth by CMS because stiffer financial penalties for excessive readmissions are now mandated (Centers for Medicare & Medicaid Services, 2016b).

The purpose of the project was to standardize education by developing a self-management packet for the COPD patients. My intention was to disseminate at the aggregate level. The packet streamlines the delivery of education to the target population and aligns with other disease-specific self-management packets already in place within the organization.

The practice-focused question that I developed to guide this project was: In COPD patients within an acute care setting in the southern United States, how does development of a standardized COPD self-management packet (as recommended by the American Lung Association) enhance the quality of care and strategize reduction of 30-day readmission rates compared to nonstandardized delivery of education? This section will include a discussion of the concepts, models, and theories I utilized for the planning and implementation of this DNP project. The discussion will include the relevance of the problem to nursing practice and the local background and context. In this section, I will

also present a discussion of my literature search and review and an analysis of the evidence I found.

Concepts, Models, Theories

Self-management is one emerging model that inspires and involves the individual in care management (Facchiano, Synder, & Nunez, 2011). As stated by Facchianno et al. (2011), there are numerous conceptual models used for translating evidence into clinical practice. I used the following theories, models, and concepts in this study: Orem's self-care theory and Bandura's self-efficacy concept to guide the principle of self-management and Rosswurm and Larrabee's evidence-based practice model to guide practice change.

Orem's Self-Care Deficit Theory

The center-point of the self-care deficit theory is the focus on the capability of each person to carry out self-care, (Kumar, 2007). In the theory, Orem stated that the surroundings the patients are in cause self-care deficits, and the nurse is liable for defining deficits and creating a maintenance modality (Mirr Jansen & Zwygart-Stauffacher, 2006). Such self-care is an individual's action carried out intentionally to regulate continued existence, health, and wellbeing (Orem, 2001, p. 82). The self-care deficit theory consists of a meta-paradigm of nursing which includes four concepts: person, environment, health, and nursing (Orem, 2001, p. 82). These four concepts are intrinsic in Orem's self-care framework (Fawcett, 2001). Orem (2001) also spoke of therapeutic self-care demands which refer to the actions an individual could perform over time to maintain a certain QOL.

The self-care concept was a fundamental component in guiding the formulation of the project. Self-care intertwines with self-efficacy, and together, the basis of these concepts holds to the principle of self-management. Self-care and self-efficacy are entrenched in self-management programs. Figure 1 shows the relationship between self-care, self-efficacy, and self-management.

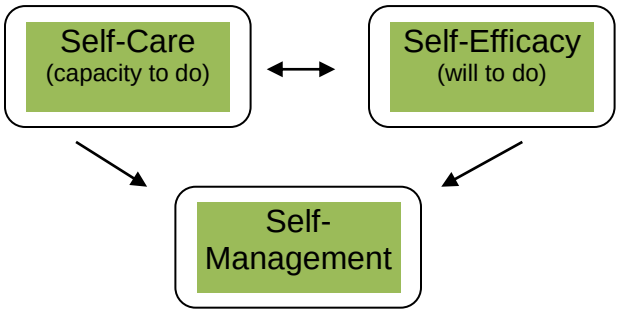

Figure 1. Concepts linked.

Bandura's Concept of Self-Efficacy

Self-efficacy is the central construct of Bandura's (1986) social cognitive theory, which perceives human functioning as being established by a dynamic collaboration of personal, behavioral, and environmental influences (Wu & Chang, 2014). The basic concept of self-efficacy is the principle that a person can perform a specific task (Caldieraro-Bently & Andrews, 2013). According to Wu and Chang (2014), the greater the individual's expectation for achievement is towards a behavior, the better their success will be in achieving that behavior.

My incorporating of the self-efficacy concept was integral to the formulation of the self-management packet. With the education packet, I aimed to introduce the patient to self-management behaviors. Self-management training was beyond the scope of this

project. Healthcare facilities should consider the appropriate follow-up, such as referral to pulmonary rehabilitation.

Rosswurm and Larrabee's Model

I chose to use Rosswurm and Larrabee's evidence-based practice model in this study because it steers a systematic process for evidence-based practice change and employs change theory and a mixture of quantitative and qualitative data along with clinical expertise (Facchiano, Synder, & Nunez 2011). Rosswurm and Larrabee's model functionalizes the concepts of self-efficacy, self-care, and self-management. Facchiano et al. (2011) conveyed that Rosswurm and Larrabee's model consists of six stages: evaluate the need for change, connect problem interventions and outcomes, synthesize the best evidence, design practice change, execute and evaluate, and incorporate and maintain a change in practice (see Table 1).

Table 1

COPD Education Initiative Using Rosswurm and Larrabee's Model

Assess **Is there a need for practice change?**	Connect **Link the problem with intervention and outcomes**	Synthesis **Grade the evidence**	Design **Devise a plan**	Execute and Evaluate **Put the plan into action and assess**	Incorporate and Sustain **Integrate and hardwire the change**
Interview key stakeholders Review facility COPD readmission rates	Reduce readmission rates to maintain compliance with CMS Standardize COPD education Ensure positive patient outcomes	Review current literature to include evidence based clinical guidelines USPSTF hierarchy to grade the evidence	Development of self-management packet	Present packet to stakeholders Post-development surveys	Disseminate packet to all units Initial and annual education to staff

Note. The steps of Rosswurm and Larrabee's model were integrated into a table to display how the model was used guide the project. Adapted from "A model for change to evidence-based practice" by M.J. Rosswurm and J. H. Larrabee,1999, Journal of Nursing Scholarship,31:4, p. 318, Copyright 1999 by the Sigma Theta Tau International.

Synthesis of Writings

The foundation of Orem's (2001) theory is the philosophy that every person desires to care for his or her self. When persons are permitted to perform their self-care requisites to the best of their capability, they will recover more swiftly and holistically (Orem, 2001, p. 82). Per Orem (2001, p. 82), the provision that authenticates the presence of a necessity for nursing in a grown-up is the lack of the capacity to sustain that quantity of self-care that is beneficial in the maintenance of living and well-being in recuperating from sickness or in dealing with the impacts. Bandura (1989) expressed that among the types of thoughts that affect action, none is more vital or extensive than

people's judgments of their abilities to use power over events that affect their lives. The theorist communicated that the self-efficacy mechanism portrays a fundamental role in the human agency. Bandura believed that the determination of self-judgments of functioning capacities alludes to how humans act, their rationalization, and the emotive response they experience with difficult situations, and people constantly must make choices about measures and how long to endure those actions. The precise judgment of an individual's abilities has significant practical worth since acting on misinterpretations of personal worth can create unfavorable outcomes.

Bandura and Orem's theories of self-efficacy and self-care complement each other to build upon the concept of self-management. In the acute care setting, it is pertinent that deliverers of healthcare recognize these concepts and strive to introduce self-management behaviors before discharge. Empowering patients with this knowledge encourages ownership and willingness of self-care. In this setting, healthcare workers should address barriers and challenges along with ensuring solid communication across the continuum of care.

Description of Terms

Health-related quality of life (HRQOL): The overall viewpoint of the QOL inside the domain of health (Dignani, Toccaceli, Guarinoni, Petrucci, & Lancia, 2015). HRQOL is a constrained idea that applies to health and exhibits a person's manifestations, operative condition, and typical awareness of well-being (Bentson et al., 2012).

Holistic care: Chan, Wong, Yeung, and Sum (2016) stated that the focus of holistic healthcare is on all the troubled relations of an ailing person, although the person is not entirely resistant to completeness. Nursing embraces holism, according to Chan et al., by recognizing the working of the physical, psychological, communal, and religious aspects of a person. Chan et al. suggested these attributes of holism give a standard structure for focusing on the complete welfare and worries faced by persons with chronic illness during their long-standing treatment.

Quality of life (QOL): Bentsen et al. (2012) asserted that QOL is a broad notion, encompassing the patient's overall contentment with living.

Self-management: Bentson et al. (2012) described this concept as the person's capability to control signs, therapy, physical and behavioral effects, and life modifications when residing with a chronic disorder.

Standardization of care: According to Timmermans and Berg (as cited in Bjornsdottir, 2014), standardization has been delineated as "the process of rendering things uniform" by making actions similar over time and space, heightening predictability, and diminishing unwarranted service variations (p. 1411). Standardized work methods are aimed at reinforcing clinicians' accountability and averting them from unfounded partiality towards treatments or patients. Bjornsdottir (2014) stated the importance of standardization shows in the move towards evidence-based practice, both in nursing and in medicine.

Relevance to Nursing Practice

Within organizational and cultural contexts, invaluable information exists to assist in closing the theory-practice gap for more reliable health outcomes and connecting with patients for advancing holistic care (Wu & Chang, 2014). Disease-specific self-management strategies can decrease emergency room use and hospital admissions (Rocker & Cook, 2013). Nursing promotion of early self-management awareness will be most beneficial to patients by enhancing positive health outcomes.

Benefits of Self-Management

Barnett (2009) explained that patients, when supplied with the needed self-management skills, can often have a positive impact on their disease and QOL. Helping to enhance the care for patients with long-term conditions now involves promoting patient empowerment. Following the theory of self-management, there will be a cultural shift in the responsibility of the health professional in backing patients to assist them foster assurance and make selections that direct them to improved self-management and results instead of a controlling position when presenting education and information (Barnett, 2009; Simpson & Jones, 2013).

Patient-Centered Care

VADOD (2014) reported that providers of care should consider a patient's demands and preferences, there should be firm interaction among healthcare professionals, and the patient is cardinal. Clinical guidelines dictate that care demand backing by evidence-based information personalized to the patient's requirements (VADOD, 2014). The materials given to patients regarding treatment and care should be

socially suitable and accessible to those that do not speak or read English or who have inadequate literateness (VADOD, 2914).

Barnett (2009) stated the soundest self-management strategies are those that are individualized, easy, and presented in a layout that patients can relate to. The material should be explicit to the demands of the patient, rather than merely containing information on the identification of alterations in symptoms and guidance on medical therapies for an exacerbation (Barnett, 2009). Barnett also stated that it becomes crucial that healthcare professionals build a relationship with their patients, identify their chief concerns, and listen to their accounts of living with their disease.

Education

GOLD (2016) stated that education given solo does not increase performance in exercise or lung function. GOLD (2016) expressed that education could play a role in cultivating abilities, the capacity to handle illness, and health status. Forming a beneficial rapport with healthcare professionals and patients is essential to providing adequate care and endorsing self-management (Barnett, 2009). In a study conducted by Verbrugge, deBoer, and Georges (2013), respiratory nurses utilized the delivery of material such as stopping smoking, dietary guidance, use of medicine, and managing dyspnea to guide the patients in self-management principles. A sounder interpretation of the advantages of self-management mediations on QOL is needed to involve multilevel nursing leadership in health care in developing and applying valuable COPD self-management strategies that stress advancement in QOL (Bentsen et al., 2012). By introducing self-management

behaviors to COPD patients, the nursing staff will contribute to the overall goal of enhancing QOL for this target population.

Local Background and Context

The mission of the institution is to present high-quality programs of teaching, research, public service, and healthcare. The programs create, communicate, preserve, and apply knowledge in service to the people of in a global community. The 5th-floor medical-surgical unit consists of 34 beds and serves a diverse population with complex medical problems.

The main diagnoses include cerebral hemorrhage or infarct, heart failure, sickle cell, chronic lung disease, HIV-related illnesses, cancer, pancreatitis, diabetes, and hypertension. A significant portion of the patient population ranges in the age of 19-65. The facility serves as a leading referral center for surrounding counties and is comprised of centers for Level 1 trauma, stroke, sickle cell disease, cardiovascular disease, and burn.

The COPD Self-Management Education Packet

I reviewed the design of the packet with frontline nurses. The frontline nurses' engagement was vital to the success of the initiative. The nurses on the unit best know the education needs of this population. I developed the packet in collaboration with nursing leadership for the medical-surgical unit, respiratory therapy, and quality management. I included topics in the packet such as smoking cessation, exercise, nutrition, medication management, and a COPD action plan. I took into consideration literacy levels and cultural sensitivities of the target population during the development of the packet.

Implementation

I drafted the packet and presented to organization leadership. The packet will pilot on the medical-surgical unit. The initiation of the pilot is beyond the scope of this project. The intent is to spread the change throughout the facility. The nursing staff will offer the packet to all COPD patients in the facility upon admission.

Federal Context

This unit participates in improving care and process measures as mandated by the Joint Commission. The Joint Commission's core measures aids as a national, standardized performance measurement system in given focused areas (Masica, Richter, Convery & Haydar, 2009). CMS has instituted a pay for performance on core measures, which fosters enhanced quality of care in all healthcare settings (Stanley et al., 2008).

CMS's Hospital Readmissions Reduction Program sanctions decreases in payments to hospitals with surplus repeat admissions with the same primary diagnosis. The rule became applicable to inpatient discharges as of 2012. The regulations that apply this stipulation are contained in subpart I of 42 Code of Federal Regulations (Centers for Medicare & Medicaid Services, 2016b). The program expanded to COPD in October 2014. Substantiation on repeat admission risk factors and rationales is inadequate to direct hospitals in starting programs to diminish COPD readmissions (Shah, Churpek, Perraillon, & Konetzka, 2015).

Role of the DNP student

I increased knowledge and awareness of financial, economic, and other concerns related to a new practice. The expertise and resources of the mentor and participated in

meetings with stakeholders were solicited to accomplish this. I researched various ways to handle issues that might arise when instituting a new practice approach.

Evidenced-based practice (EBP) mentors are valuable knowledge and skill brokers who can lead EBP transformation projects that enhance healthcare quality (Magers, 2014). It is essential to distinguish the stakeholders and ascertain their position on the proposed project (Chreiman, Kim, Garbovsky, & Schweickert, 2015). Buy-in must be achieved at the frontline level as well as at the administrative level. One strategy for obtaining buy-in at the administrative level is to present a cost-benefit analysis. Fortitude of the health system infrastructure to cultivate budget and resource distribution is imperative (Chreiman, Kim, Garbovsky, & Schweickert, 2015). Reviewing the literature for most current evidence-based practices was critical in this endeavor. Ascertaining history and future visions of the organization was most helpful.

One role I engaged was to facilitate application of evidence into practice. The role included education to stakeholders. I elicited input and involvement of interested parties in the process to ensure success. Evidence-based clinical protocols can be instrumental in guiding best practice and bettering the excellence of patient care and enhancing positive results. Proficient nursing judgment and evidence-based nursing actions can improve patient care and outcomes (Magers, 2014).

The success of process or policy implementation stems from the personal stake and directed leadership of the champions (Chreiman, Kim, Garbovsky, & Schweickert, 2015). Strategies to help overcome challenges are team building, establishing a clear vision, and obtaining institutional approval. Other strategies include increasing

communication for buy-in, being persistent, and acknowledgment of short-term successes (Gallagher-Ford, Fineout-Overholt, Melnyk, & Stillwell, 2011).

An underpinning philosophy towards this project is built upon the principle of delivering holistic and individualized care. Noteworthy changes today such as financial struggles of healthcare organizations and nurse staffing scarcities and other modifications are an imposition to customary values of nursing such as caring, preserving respectability, and personalized care (Holt, 2014). The disease-specific education packet adds to the individualization of the target population's clinical pathway. My philosophy could be interpreted as a potential bias. There are still practitioners that hold the belief that care should exist in silos. Alternatively, practitioners practice generalized care and not individualistic care. To curtail this, I ensured that evidence supported the interventions.

Summary

I have provided a robust discussion of concepts, models, and theories utilized for planning and implementation of the DNP project. A discussion of a concise synthesis of Orem and Bandura's ideas of self-care and self-efficacy was presented. The relevance of the problem to nursing practice, literature search, review, and analysis of the evidence was examined. The gap in practice was identified as the delivery of nonstandardized education to COPD patients as opposed to the delivery of standardized, evidence-based education to promote self-management. I will discuss the methods used to carry forth the project in section 3.

Section 3: Collection and Analysis of Evidence

Introduction

COPD is a substantial public health dilemma and a larger volume of research is transpiring on the fundamental mechanisms and efficiency of many therapy modalities. This large body of research on COPD leads to additional comprehension of the disease and permits patients and providers alike to be confident that they can manage COPD effectively. Effectual management ensures the provision of a bettered QOL (VADOD, 2014).

The organization under study had intact disease-specific education packages for CHF, diabetic, and stroke patients, but there was no standardized education offered to the COPD population. Patients with COPD received unstructured, inconsistent education from registered nurses throughout the facility. The purpose of this project was to standardize education by developing a self-management packet for the COPD patients for dissemination at the aggregate level.

I used Orem's self-care model and Bandura's concept of self-efficacy to guide the development of the packet and Rosswurm and Larrabee's model for practice change. The 5th-floor medical-surgical unit consists of 34 beds and serves a diverse population with complex medical problems. Patients with chronic medical problems most often will benefit from education on self-care. In Section 3, I will highlight the practice-focused question, evidence from the literature to support the intervention, and the gaps I discovered in the literature.

Practice-Focused Question

In COPD patients in an acute care setting in the southern United States, how does development of a standardized COPD self-management packet (as recommended by the American Lung Association) enhance the quality of care and strategize reduction of 30-day readmission rates compared to nonstandardized delivery of education?

Sources of Evidence

To locate relevant scholarly literature, I used keywords and phrases, including *self-efficacy, self-management, and COPD, self-care, and COPD, self-management of chronic disease* and *education as a strategy for self-management, chronic obstructive, readmission,* and *discharge preparation,* when searching the following online databases: OVID Online, CINAHL, PUBMED, and MEDLINE. The Cochrane Library was utilized to identify randomized, controlled trials. My review expanded to a publication timeframe of 10 years (2007 to 2017) to ensure an extensive search. I performed the search without language restrictions. The American Lung Association (guidelines on self-management for COPD), CMS (National COPD readmission rates), and The Joint Commission (30-day COPD readmission rates and all-cause readmission guidelines) were data sources. The National Guideline Clearinghouse (VADOD) Clinical Practice Guideline for the Management of COPD and GOLD (evidenced-based strategy documents for COPD management) were also sources of information and data.

Literature Review

I completed a review of the extant literature to validate and assess the following topics: self-management, self-care, COPD self-management strategies, and education as a

strategy to reduce 30-day readmissions. The types of literature I searched included systematic reviews, random controlled trials, and qualitative studies. In addition, I reviewed nationally-recommended clinical practice guidelines.

Part of the crusade for bringing research critiques into EBP is the grading of evidence (Boswell & Cannon, 2011). To critically appraise the articles, I chose the USPSTF's (2011) level of evidence hierarchy to categorize the strengths and weaknesses of the evidence referenced for this project. The hierarchy consists of the following five levels (1 being strongest and 5 being suggestive or weakest):

1. Meta-analysis
2. Experimental designs (random controlled trials)
3. Well-designed quasi-experimental (no control group)
4. Well-designed nonexperimental
5. Case reports, clinical expertise, and expert opinion

The purpose of this DNP project was to develop and implement a self-management education packet based on evidence using the USPSTF hierarchy of evidence. The packet streamlines and standardizes education that staff delivers to the COPD population. The standardized education is anticipated to close the practice gap of using inconsistent methods instead of evidenced-based guidelines for education.

The COPD-affected population functions alongside a spectrum of disease impact. At one end of the spectrum, modest disease impact is treatable with pharmaceuticals on an outpatient basis Those with end-stage COPD for whom medical interventions have little prospect of favorable outcomes, palliative care remains the only practical

alternative. It is the substantial population situated between these outliers that constitute the prospective beneficiaries of the project.

Ostensible efficacy of patient education programs. I have included four systematic reviews in the evidence to support the concepts and underpinnings of this project. Bentsen et al. (2012) evaluated self-management strategies for COPD. In their review, four randomized controlled trials were assumed between 2000 and 2011. The results of their review concluded that self-management applications increased patient welfare.

Self-management interventions tend to expand the value of existence in patients living with COPD. In their study, Effing et al. (2007) evaluated the effectiveness of self-management programs. The researchers found a liklihood that self-management training is related with a lessening in inpatient admissions, without indications for unfavorable consequences in other outcome limitations. However, the authors found no evidence on the efficacy of self-management due to the great dissimilarity in results employed in the fixed amount of incorporated experiments. In an update to this systematic review, Zwerink et al. (2014) concluded that self-management interventions in patients with COPD relate to a decrease in pulmonary-related and all-cause hospital admissions. The researchers found that even though patient education is a crucial constituent of self-management, unaided education is inadequate to accomplish the objective of behavioral modification.

Kris et al. (2013), in their evaluation of the effectiveness of integrated disease management (IDM), concluded that IDM enriched disease-specific QOL and lowered

inpatient admissions. Clinical practice guidelines and recommendations set forth by GOLD (2016) and the VADOD (2014) include education as an integral part of a more comprehensive self-management strategy. As stated by Peytremann-Bridevaux (as cited by Kruis et al., 2013), long-standing illness prevention and management are comprised of a collection of logical mediations, intended to avert or direct prolonged disorders, using a methodical multidisciplinary tactic and incorporating various therapy regimens.

Trappenberg et al. (2011) evaluated the efficacy of an uncomplicated mediation to reduce the effect of COPD exacerbations. In this multicenter, randomized control trial, Trappenberg et al. concluded that action plans are a strategic element of self-management in COPD patients. Consequently, an action plan is an integral component of the education packet I developed for this project.

Establishing a patient education model. Patient education models extend from straightforward medical instruction to more comprehensive approaches. A recurrent theme found in COPD treatment-related research is the importance of tangential factors, notably diet and psychological wellbeing (Luk, Gorelik, Irving, & Khan, 2017). Luk, Gorelik, Irving, and Khan (2017) concluded from the outcomes of a controlled clinical trial that the addition of cognitive behavioral therapy improved patient performance both physically and psychologically. Short-term impact showed reductions in stress, fatigue, and depression, while long-term impact remains to be determined (Luk, Gorelik, Irving, & Khan, 2017). A long-term research project conducted under the auspices of the Cleveland Clinic Foundation (2017) determined that diet modification can diminish the impact of COPD by developing muscle tone, and thereby, facilitating increased carbon

dioxide exhalation. Choudhun (2012), considering palliative care in the expanded context of long-term community-based treatment, concluded that diet and anxiety relief, in conjunction with standard medical interventions, improved prospects for patient stabilization. Choudhon pointed to the dearth of research into means of addressing patient anxiety and depression, a consideration implicit in Luk et al.'s findings.

Encouraging patient compliance. Inadequate patient compliance with medical treatment regimes, whatever their form, remains an inherent obstacle to securing favorable long-term outcomes. Bryant et al. (2013), after an extensive meta-analysis of research findings relating to COPD patient medicine compliance, identified several stratagems contributing to patient treatment regimen adherence. These stratagems included counseling and monitoring of inhaler use; utilization of electronic delivery devices; and a combination of self-management, pharmacist advice, and encouragement from primary caregivers (all of them evidently mutually reinforcing). Choudhun (2012) found that nutritional support, especially in the context of family encouragement, served to overcome fears of weight gain. The author also noted persistent cigarette smoking in those patients suffering from anxiety, perhaps associated with inadequate family support and encouragement. Securing compliance is often aggravated by comorbidities (Dursunoğlu et al., 2016). Dursunoğlu et al. (2016) determined that approximately 50% of COPD patients have more than two comorbidities. The authors concluded that the impact of comorbidity treatment regimens on COPD remains enigmatic, if only because some of the more notable ones (e.g., lung cancer) often fail to respond to medical interventions. The research effort conducted by Luk et al. (2017) can be understood as an

attempt at overall compliance reinforcement. Cognitive behavioral therapy addresses those related emotional conditions that impinge on an effective educational regime (Luk et al., 2017).

Implications for nursing. Nursing management and nursing leaders should be involved in programs to progress and execute self-management strategies for COPD patients to increase the value of living (Bentsen et al., 2012). Most of the existing studies on the topic include action plans as a vital component of self-management (Zwerink et al., 2014). Unified education for elder patients with COPD can successfully improve patients' knowledge requirements and activities of daily living and reduce hospitalizations (Wakabayashi et al., 2011). In line with these evidenced-based studies, I developed the COPD education packet to include an action plan that may be modified to the individual patient.

Gaps in the Literature

I did not obtain much research to back the direct use of Orem's theory as associated with using educational interventions to diminish readmission rates. Many of the researchers whose articles I obtained used implications to tie self-care to educational interventions, but did not straightforwardly evaluate or gauge the effectiveness of those interventions during hospitalization. Furthermore, the evidence from studies including Cochrane reviews (Effing et al., 2009; Monninkhoff, 2003) proposed that additional research is required before firm conclusions can be derived on what establishes good self-management support in COPD (Simpson & Jones, 2013). Self-management has appeared to be successful in a select number of high-risk patients with COPD in expanding distinct

outcomes; however, the position of substantiated self-management in providing for patients with COPD and changing attributes and disease gravities has not been well studied (GOLD, 2016; VADOD, 2014). The diverse constituents of established self-management should be examined independently to conclude which elements are best efficient (VADOD, 2014).

Analysis and Synthesis

I utilized Rosswurm and Larrabee's model for practice change for the COPD education initiative. The first step in the context of this project involved interviewing key stakeholders such as the director of clinical resources, assistant director of respiratory therapy and the director of quality management to ascertain viewpoints and review baseline data (COPD readmission rates) about the feasibility of the project. The second step was the presentation of the problem: the need to further decrease readmission rates in the facility for the COPD population to maintain compliance with CMS guidelines as well as ensuring positive patient outcomes by utilizing best clinical practices. Step 3 involved researching and literature reviews, reviewing another facility's best practices, and grading the evidence. Step 4 was the design of the education packet. Stakeholder input and involvement was gained to develop the packet. Step 5 involved the presentation of the packet to the stakeholders and evaluation of the packet by stakeholders. Surveys were administered to stakeholders to evaluate usefulness and efficacy of the packet. The final step 6 entails education to staff and dissemination of the packet throughout the facility. Step six is beyond the scope of the project.

The proposal to develop a patient self-management packet followed suit with the organization's educational packets for such disease processes as CHF and diabetes. The packet will be used in conjunction with tools already intact such as the readmission screening tool and discharge follow-up phone calls (which have been modified for specific COPD). The packet includes, but not limited to self-management guidance on diet, activity, monitoring of signs/symptoms of exacerbation, and what to do in cases of emergency.

Summary

COPD is relayed as a major public health crisis, and a vaster amount of research is performed on the primary processes and effectiveness of numerous treatment approaches. The practice question was: In chronic obstructive pulmonary disease patients within an acute care setting in the southern United States, how does development of a standardized COPD self-management packet (as recommended by the American Lung Association) enhance the quality of care and strategize reduction of 30-day readmission rates compared to nonstandardized delivery of education?

Key words searched were: *self-efficacy, self-management and COPD, self-care, and COPD education* in OVID Online, CINAHL, MEDLINE and the Cochrane Library. The USPSTF's level of evidence hierarchy was chosen to categorize the strengths and weaknesses of the evidenced referenced for this project. Evidence from studies including Cochrane reviews implied that more research is necessitated before firm conclusions can be drawn on what signifies strong self-management support in COPD. Researchers have not well-studied the function of corroborated self-management in providing for patients

with COPD and diverging qualities and disease gravities, even though sustained self-management has presented to be effectual in high-risk patients with COPD in enhancing distinctive outcomes.

For the COPD education initiative, I used Rosswurm and Larrabee's model for practice change. I developed a patient self-management packet, which followed suit with the organization's educational packets for such disease processes as CHF and diabetes. In section 4, I will present the findings and recommendations of the project.

Section 4: Findings and Recommendations

Introduction

COPD signifies a significant public health challenge that is both avoidable and treatable. There was no standardized education offered to the COPD population at the practice location. The organization must be cautious in adhering to guidelines set forth by the CMS because stiffer financial penalties for excessive readmissions are now mandated (Centers for Medicare and Medicaid, 2016b). The purpose of the project was to standardize education by developing a self-management packet for the COPD patients. The practice question was: How does the development of a standardized COPD self-management packet enhance the quality of care and strategize reducing 30-day readmissions compared to nonstandardized delivery of education?

I completed a review of the literature to validate and assess the following topics: self-management, self-care, COPD self-management strategies, and education as a strategy to reduce 30-day readmissions. The types of literature I searched included systematic reviews, random controlled trials, qualitative studies, and nationally-recommended clinical practice guidelines. I used the keyword search terms of *self-efficacy, self-management and COPD, self-care,* and *COPD education* to search the OVID Online, CINAHL, MEDLINE, and the Cochrane Library databases. The USPSTF's level of evidence hierarchy was chosen to categorize the strengths and weaknesses of the evidenced referenced for this project.

Findings and Implications

The Development of the COPD Self-Management Education Packet

I drafted a COPD packet and gave it to the frontline staff nurses for their input. Topics included in the packet were self-management strategies such as: medication management, nutrition, smoking cessation, activity, and a COPD action plan. As a strategy to address low literacy levels, the packet was tailored to meet a sixth-grade reading level. I also integrated large bold print and pictures into the packet (see Appendix C). Cloonan, Wood, and Riley (2013) stated that evidence-based interventions focusing on low health literacy sustain the implication to advance understanding and self-management. The design of the packet focused on self-management of disease and treatment with the aim of reducing 30-day readmissions (see Appendix C).

Evaluation of the COPD Self-Management Education Packet

After drafting the education packet, I presented to the COPD committee. The committee approved the packet with one recommendation to incorporate more pictures. The committee expressed that this would be more beneficial to the facility's current COPD population. I implemented the modifications by reducing the verbiage and adding more pictures.

I then administered surveys to the COPD committee, which included was but not limited to the clinical nurse leader of the medical-surgical unit, assistant director of respiratory therapy, director of clinical resources, and the director of quality management. The surveys consisted of six questions, which evaluated the efficacy and adaptability of the packet (see Appendix E).

Results

The surveys were quantified based on the Likert scale. Each evaluator rated the degree to which each element had the potential of affecting efficacy and ease of adaptability of the packet on a scale of 1-5, in which 1 = *strongly disagree*, 2 = *disagree*, 3 = *neutral*, 4 = *agree*, and 5 = *strongly agree*. The elements I evaluated were increased patient knowledge of COPD, relevancy to the population, ease of format, ease of integration into practice, increase in quality of care, and reduction of COPD 30-day readmissions.

Table 2

Results of Evaluation Elements

Element	Strongly Agree	Agree	Neutral
1. Increase patient knowledge of COPD	71%	29%	--
2. Relevancy to the population	86%	14%	--
3. Ease of format	71%	14%	14%
4. Ease of integration into practice	86%	14%	--
5. Increase quality of care	71%	29%	--
6. Reduction of COPD 30-day readmissions	71%	29%	--

I used the IBM SPSS Version 24 software to analyze the data. As seen in Table 1, there were no negative responses, and the packet was approved unanimously. There was more than a 70% response rate of *strongly agreed* to all questions. Table 3 depicts the descriptive statistics of the evaluator's responses. The responses to Question 3 (M = 4.5714, SD = .78680, variance = .619) correlated with the committee's recommendation to add more pictures to the packet. Additional pictures would be most appropriate for the average literacy level of the facility's patients. Questions 1, 5, and 6; 2 and 4, respectively, had means of 4.7143 and 4.8571. Based on the positive responses, the packet will be easily adaptable and effective in practice.

Table 3
Descriptive Statistics

	N	Mean	Std. Deviation	Variance
Will the packet increase knowledge of COPD	7	4.7143	.48795	.238
Content of packet relevant	7	4.8571	.37796	.143
Format easy to read	7	4.5714	.78680	.619
Ease of integration into practice	7	4.8571	.37796	.143
Increase quality of care	7	4.7143	.48795	.238
Viable strategy to reduce 30-day readmissions	7	4.7143	.48795	.238
Total Sum	7	28.4286	2.82000	7.952
N	7			

Implications

The concentration on a COPD diagnosis is judiciously significant to the economic welfare of hospitals as well as the clinical health of this patient population (Cloonan et al., 2013). Researchers have concluded that self-management interventions in patients with COPD relate to a decrease in pulmonary-related and all-cause hospital admissions (Cloonan et al., 2013). Nursing management and nursing leaders should be involved in programs to progress and execute self-management strategies for COPD patients to increase the QOL.

Unified education for elder patients with COPD can successfully improve patients' knowledge requirements, activities of daily living, and reduce hospitalizations (Cloonan et al., 2013). By introducing self-management behaviors to COPD patients, the nursing staff at the study site will contribute to the overall goal of enhancing QOL for this target population. I developed the COPD education packet to be in line with evidenced-based studies and to also include an action plan that may be modified to the individual patient. The facility will benefit from this project with positive outcome measures including a reduction in the COPD 30-day readmission rate and a possible aid in coordination of care.

Recommendations

The research on education as a self-management strategy suggests that education is beneficial and a necessary component. Researchers found that even though patient education is a crucial constituent of self-management, unaided education is inadequate to

accomplish the objective of behavioral modification (Zwerink et al., 2014). Based on these assumptions, I recommended the following to facility leadership:

- A brief pilot (3 months in length) on the medical-surgical unit and modified as needed.
- Track and trend the number of packets given to patients and the number of 30-day readmissions and trend causes.
- Make 2-week postdischarge telephone calls to patients to ascertain their perspective of the packet.

Strengths and Limitations of the Project

Through this experience, I recognized that both strengths and weaknesses of the packet development existed. The focal strength of the project was the successful development of the packet, which included input from frontline staff as well as leadership partners. The inclusion of stakeholders will engage, empower, and promote ease of integration once the packet is implemented. Burr and Leung (2015) acknowledged that a person at the forefront effectively commences and inspires change in the endeavors of another to reach a revelation. Another strength was the standardized education that the packet will provide. The packet is in alignment with other facility disease-specific education packets, and this alignment leads to the generalizability of the self-management education packet concept. Lastly, the design of the packet will assist with readability for those in the COPD population with low literacy levels.

According to Williams (2012), a primary role of leadership is to build and sustain a culture that appreciates interdependency, reciprocity, and collaboration. A limitation of

the project was my inability to solicit input from the pulmonologist before the packet was presented to the COPD committee; however, the facility plans to accomplish this before going to print. If I had achieved collaboration with the pulmonologist, this would have been an additional venue of provided expert knowledge. The pulmonologist role is crucial because they attend to patients both inpatient as well as in the clinic. The input from this discipline will be valuable to the success of the education packet.

Future projects with similar methods may incorporate an actual project team. Moving forward, the team could be challenged to incorporate the contents of the education packet into a segment on of the television education channels provided as a service to the patients. The nursing staff as well as other interdisciplinary team members can contribute to educating on portions of the packet. This provides another avenue for the team to integrate interactive standardized education. It is crucial to consider how to support team members, elevate teamwork, present changes, communicate effectively, and embark on regular evaluation (Burr & Leung, 2015). A leader must provoke trust to motivate others.

Section 5: Dissemination Plan

I presented the COPD self-management packet to the facility COPD committee. I also plan to present to the facility EBP committee using a powerpoint via web conference. I have been asked to remain as an ad-hoc member of the COPD committee since the facility will roll the packet into a COPD care bundle which is in the process of being developed. As a nurse leader and scholar-practitioner, I am playing an integral part in this initiative. I will participate in the implementation of the care bundle, which is beyond the scope of this project. The care bundle will be a secondary avenue for having the packet disseminated. The deployment of practice changes to improve the delivery and quality of care is compatible with *DNP Essentials II* regarding the role of the DNP as a leader within the organization (American Association of Colleges of Nursing, 2006).

Beyond facility dissemination comes my intention to spread this change and the results of this project study to local and national venues. I will submit a poster abstract to the Clinical Nurse Leader Association. Dissemination and communication are imperative for success and to ensure that the conducted research has a societal or cost-effective impression (Marin-Gonzalez, Malmusi, Camprubi, & Borrell, 2017).

Analysis of Self

Scholar

As a requirement for the DNP degree, this project aided in my ability to apply the knowledge and skills obtained throughout the DNP journey as well as in my current workplace. Conceptualizing a project is a rational process of validating the requirement

for the study and indicating the most appropriate methodology for handling the question, categorizing supportive documentation, and recapitulating the project in an abstract (Penrod, 2003). As a scholar, I identified a facility issue and developed, through evidenced-based research and collaboration, a viable intervention whose impact on quality patient care and outcomes will be valuable.

Practitioner

By recognizing a facility problem of not having standardized education for the COPD population, I aided in closing a knowledge gap between frontline staff and this population. EBPs lend to the continuity of care for patients as well as narrowing margins for error and miscommunication. The concept of the education packet may be generalized to any population. The facility has deemed the intervention as a best practice. A practice area specialty objective I strove to achieve with this project was to utilize advanced competencies for practice and leadership roles related to organizational system changes that advance patient safety and lead to improvement in the quality of healthcare delivery as evidence by exhibiting proficiency in quality improvement strategies (National Association for Healthcare Quality, 2016).

Project Manager

The doctoral degree is a way to foster education around concerns and to cultivate nurse leaders who are equipped to assist in the implementation of programs in healthcare organizations as they carry evidence into practice (Waxman, 2010). I completed a project that addressed the involvement of various stakeholders, applied EBP, and influenced nursing practice. My completion of the development of a COPD education

initiative, as a quality improvement project, proved that I demonstrated a higher evidence of scholarship and practice.

Challenges, Solutions, and Insights

This project culminated with the approval of the COPD self-management education packet by the COPD committee. A challenge I faced was presenting to the committee in a timely fashion. The facility was gearing up to implement a new system-wide electronic medical record software. The initiative involved every aspect of the organization, and so, naturally their focus was on this initiative. I kept the lines of communication open by contacting members individually. Understandably, it was difficult to maintain the attention of the committee. Additionally, it was difficult to tell them that every stakeholder would need to be involved and that all the steps needed to be taken to ensure that the project ran smoothly at this hectic time in the organization. Overall, the facility has a dedicated group of stakeholders who followed through.

Summary

In Section 5, I presented several venues in which the COPD education packet may be spread at the organizational level as well as across the nation. Initiating this practice change required me to demonstrate a higher evidence of scholarship and practice. Utilizing the concept of the education packet as a best practice may be generalized to any population. EBP leads toward standardization, continuity of care for patients, and a narrowing of margins for error and miscommunication. The disease-specific education packet adds to the individualization of the target population's clinical pathway. Nursing

promotion of early self-management awareness will be most beneficial to patients by enhancing positive health outcomes.

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Appendix A: Gap Analysis

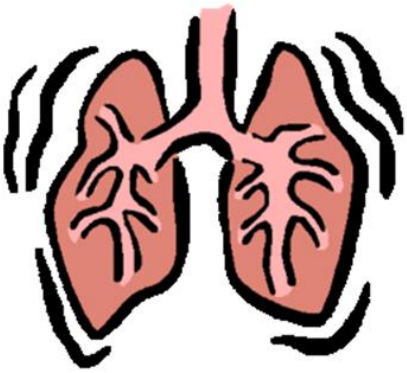
Current State	Future State	Gap Identification	Intervention
COPD patients receive unstructured, inconsistent, education from registered nurses throughout the facility. The education is not based on recommended guidelines provided by the American Lung Association or the Global Initiative for Chronic Obstructive Lung Disease.	The patient will experience an increased knowledge and ability of self-management after discharge leading to a decrease in the 30-day readmission rate at the facility.	The education for COPD patients is not standardized without assurance the education is evidenced based and recommended by the American Lung Association and the Global Initiative for Chronic Obstructive Lung Diseases.	The development of a standardized education packet based on the American Lung Association and the Global Initiative for Obstructive Diseases recommended guidelines.

Appendix B: Strengths and Weaknesses of Existing Literature

Strengths	Weaknesses
Most evidence was based on literature reviews, which included randomized controlled studies. Clinical practice guidelines include strong recommendations for self-management.	No firm conclusions found to support the education of self-management as a stand-alone practice to aid in deterring hospital readmissions.
Most research suggested firm evidence support Orem's self-care theory. Most studies offered strong support for self-management concept.	Evidence made implications that the use of educational interventions would be advantageous, but very few of the studies measured self-management education as an intervention.
The evidence is appropriate to the practice problem and corroborated educational interventions as being helpful.	

Appendix C: COPD Education Packet

COPD Learn More Breathe Better



COPD is……..?

COPD is known as Chronic Obstructive Pulmonary Disease. There is no cure for COPD. You can help to improve your symptoms, while slowing the progression of your disease, with proper management and education.

C= Chronic: This means it will never go away or long term.

O=Obstructive: This means a part of your lung or multiple parts are blocked.

P= Pulmonary: This means the heart and lungs.

D= Disease: This means sickness.

Risk Factors for COPD

Smoker

Exposure to particles

Work-related dusts and chemicals

Indoor air pollution from heating/cooking

Outdoor air pollution

Symptoms

A long-lasting cough

Mucus that comes up when you cough

Shortness of breath, especially with exercise

Wheezing

Fatigue

Frequent respiratory infections

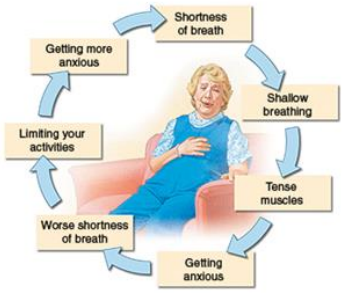
Blueness of the lips or fingernail beds

Exacerbations

COPD flare-ups commonly caused by respiratory infections

3 Major symptoms include:

- Change in color of mucus
- Increased amount of mucus
- Worsening shortness of breath



Self-Management Strategies

- ✓ Smoking cessation
- ✓ Exercise
- ✓ Pneumonia & annual flu vaccines
- ✓ Hand Cleanliness
- ✓ Deep breathing, stress control
- ✓ Oxygen if ordered
- ✓ Save energy
- ✓ Lifestyle changes
- ✓ Nutrition
- ✓ Follow up with your doctor

Medication Management

- **Compliance with medications is very important!**
- Take your pills at the same time every day and do not skip a dose.
- Ask your pharmacist or doctor about the possible side effects of your medication, and if they need to be taken with food.
- These may include:

Inhalers

Exacerbation medications:

Antibiotic and/or prednisone

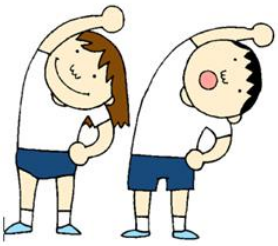
No Smoking

- Don't smoke, and don't allow anyone to smoke near you or in your home
- Ask for smoke-free hotels and rental cars, sit in the non-smoking section.
- Wear a mask  outside if you are in an area where they are burning fields or if there are fireworks going off in your area.

Activity

Talk to your healthcare provider first before starting any exercise program

- Start each morning with some simple stretches before you get out of bed.
- While watching TV, stretch your arms and legs
- Keep a log of the exercises you do.
- Balance your activity and rest.



If you have any of the following symptoms STOP and REST:

- Trouble catching your breath
- Feel weak or faint
- Dizziness or lightheaded
- Experience any other problem that may cause concern

EAT HEALTHY

1. **Eat small frequent meals** to avoid feeling overfull and making it harder to breathe. For this reason, also avoid gas-producing foods such as onions or any other food that you know cause gas for you. 
2. **Limit sodium intake**. Eating foods high in sodium can cause your body to hold water. This will force your lungs and heart to work much harder.
   - Use seasoning alternatives such as Mrs. Dash®, and fresh herbs/spices. 
   - Choose unseasoned fresh or frozen meats and vegetables. 
   - Fast food and sit-down restaurants use a lot of salt to season their foods.
3. **Limit simple sugars.** Try getting your carbohydrates from high fiber foods such as fruits and vegetables.

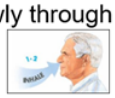

4. **Drink plenty of fluids (6-8 cups/day), unless your**  **doctor recommends a fluid restriction.** Drink fluids between meals. Weigh yourself at least once a week, especially if you are taking a water pill or steroids (i.e. prednisone).

Reduce Stress and Control Breathing

Pursed Lip Breathing Technique

The pursed lip breathing technique is used to help you breathe out more air and not be short of breath.

How to do it?

1. Inhale slowly through your nose and count to two. 

2. Purse your lips- like you're blowing out a birthday candle, breathe out, counting to four. 

3. Do not force yourself to empty your lungs.

*** IF YOU BECOME LIGHT HEADED, STOP IMMEDIATELY AND SIT OR LAY DOWN!***

CALL 911 AND

SEEK MEDICAL ATTENTION IF

You cannot catch your breath 

Chest pain 

Fever/shakes/chills

Coughing up blood

Confused/drowsy

Swollen ankles

Bloody or smelly mucus

While help is on the way do the following:

Take your rescue inhaler

Sit down and practice pursed lip breathing

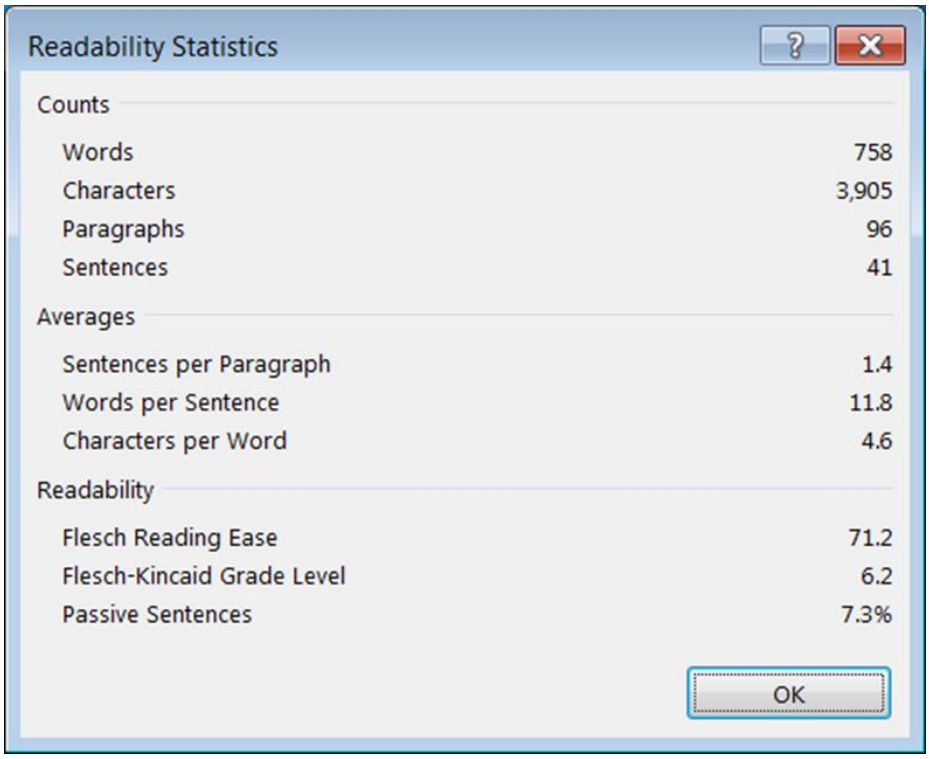
MY COPD ACTION PLAN

Green Zone: I am doing well today	Actions
• Usual activity and exercise level • Usual amounts of cough and phlegm/mucus • Sleep well at night • Appetite is good	☐ Take daily medicines ☐ Use oxygen as prescribed ☐ Continue regular exercise/diet plan ☐ At all times avoid cigarette smoke, inhaled irritants* ☐ _____

Yellow Zone: I am having a bad day or a COPD flare	Actions
• More breathless than usual • I have less energy for my daily activities • Increased or thicker phlegm/mucus • Using quick relief inhaler/nebulizer more often • Swelling of ankles more than usual • More coughing than usual • I feel like I have a "chest cold" • Poor sleep and my symptoms woke me up • My appetite is not good • My medicine is not helping	☐ Continue daily medication ☐ Use quick relief inhaler every ____ hours ☐ Start an oral corticosteroid (specify name, dose, and duration) _____ ☐ Start an antibiotic (specify name, dose, and duration) _____ ☐ Use oxygen as prescribed ☐ Get plenty of rest ☐ Use pursed lip breathing ☐ At all times avoid cigarette smoke, inhaled irritants* ☐ Call provider immediately if symptoms don't improve* ☐ _____

Red Zone: I need urgent medical care	Actions
• Severe shortness of breath even at rest • Not able to do any activity because of breathing • Not able to sleep because of breathing • Fever or shaking chills • Feeling confused or very drowsy • Chest pains • Coughing up blood	☐ Call 911 or seek medical care immediately* ☐ While getting help, immediately do the following: ☐ _____

Appendix D: Readability Statistics for Education Packet



Health Literacy

The Flesch Reading Ease Test rates the ease of understanding a document. The test rates text on a 100-point scale. Ease of understanding increases with a higher Flesch Reading Ease score. This value should be no lower than 60.

The Flesch-Kincaid Grade Level Test rates text on a U.S. school grade level. A score of 12.0 means that a twelfth grader can read and understand the document. Health literacy guidelines state that health education materials should be written at a 6th to 8th-grade reading level.

Appendix E: Evaluation Questionnaire

Evaluation of the COPD Self-Management Education Packet Questionnaire

For each of the questions below, circle the response that best characterize how you feel about the statement, where 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4=Agree, and 5=Strongly Agree

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.Will the packet increase patient knowledge of COPD?	1	2	3	4	5
2.Is the content of the packet is relevant to the COPD population?	1	2	3	4	5
3.Is the format of packet easy to read and follow for this population?	1	2	3	4	5
4.Can the packet can be easily integrated into practice?	1	2	3	4	5
5.Will the standardized education packet increase quality of care for this population?	1	2	3	4	5
6.Is the packet a viable strategy to aid in reduction of COPD 30- day readmissions?	1	2	3	4	5