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Providing Evidence-Based Education About Caring for Patients with Atrial Fibrillation

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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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Walden University
2020

Abstract

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by

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MS, University of Kentucky, 2002

BS, Eastern Kentucky University, 1990

Project Submitted in Partial Fulfillment

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Doctor of Nursing Practice

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Abstract

In a multidisciplinary health care team, nurses are often the initial contact when patients present for clinical evaluation. Thus, it is of great importance that these nurses provide education to patients that is current and evidence-based. The target population of this project was nurses who care for patients with atrial fibrillation (A-Fib). The practice problem was the knowledge gap related to A-Fib. The purpose of the project was to provide an evidence-based, nursing education intervention to increase their knowledge. The practice-focused question sought to determine whether participation in the evidence-based education intervention increased nurses' knowledge scores about providing care for patients with A-Fib. The theoretical and practical foundations for the project were the chronic care model and the eHealth enhanced chronic care model. The models' components of self-management support, delivery system design, clinical decision support, and clinical information systems have been shown to enhance the delivery of education for cardiovascular patients. Pre- and post-intervention surveys were used to evaluate the effectiveness of the education. The data were analyzed using a two-sample t test to compare the mean number of correct answers before and after the education intervention. While there was an increase in the mean pre- to postintervention correct answers, from 8.93 to 9.67, the difference was not statistically significant. This project has implications for positive social change; by providing education to first-line clinical nursing staff caring for patients with A-Fib the ability to use current and reliable information in patient teaching will be enhanced.

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Table of Contents

Section 1: Nature of the Project

Introduction

Atrial fibrillation (A-Fib) is a complex disease for patients and health care providers. The disease presents new terminology for nurses; it is difficult for nurses to adhere to the medical care plan and to identify symptoms and indications for specialized treatments and procedures (Aronis et al., 2017). A-Fib is classified as paroxysmal, persistent, or permanent (Qvist et al., 2016). Treatment is complicated by the need for patient involvement (or self -management) in treatment decisions, and the need for anticoagulant medication to prevent a cerebral vascular accident. An essential component of treatment of chronic illnesses, including A-Fib, is effective education. But a gap in nurses' evidence-based knowledge about the disease constitutes a barrier to providing evidence-based education to the target population (Ferguson et al., 2016). The purpose of this Doctor of Nursing Practice (DNP) project was to provide an evidence-based education intervention to nurses who care for patients with A-Fib in the clinic setting.

Nurses are in a position to deliver health care information to patients order to reduce the burden of adverse events about A-Fib, such as ischemic stroke (Ferguson et al., 2019). The project demonstrated a slight improvement in A-Fib knowledge among nurses who provide care to patients with this arrhythmia at the clinic site. An improvement in nurses' knowledge about the illness and its treatment can translate into enhanced patient outcomes, improved self-management, and increased quality of life.

Problem Statement

The clinical practice problem was the need to increase staff knowledge about A-Fib, a widespread heart arrhythmia that causes the heart to beat irregularly and inefficiently. The numbers of people suffering from A-Fib is significant; according to the Centers for Disease Control and Prevention (CDC, 2017), 2.7- 6.1 million people have been diagnosed. The percentage is greater among those older than 65 (CDC, 2017). Therefore, as the U.S. population ages, the number of people seeking treatment is expected to increase. In the project facility's service area, the mortality rate for cardiac disease is 23% and A-Fib is ranked as the 9th highest cause of cardiac deaths nationally (American Heart Association, 2010, para. 1). Per discussion with a Cardiology Attending physician, a large number of the consultation requests received by the cardiology specialty clinics within the project site network are for treatment and evaluation of A-Fib (personal communication, April 5, 2020).

Patients with A-Fib need effective education to manage the disease. Clinical nursing staff, including RNs and LPNs, are well situated to teach patients with A-Fib and are accountable to provide accurate, evidence-based education to their patients with the arrhythmia Qvist et al. (2016). A strong knowledge base is essential to improve patient outcomes through education which supports self-management (Convery, Hickson, Keidser, & Meyer (2019; Thrysoee, Stromberg, Brandes, & Hendriks (2017). The benefit of clinic nursing staff who have a high level of knowledge is threefold: patients experience a sense of staff involvement in their care management, (b) supportive

communication from staff members, and (c) individual education to improve their outcomes (Siouta et al., 2015). Patients want to learn about their illness (Siouta et al., 2015). Individuals who have a poor understanding of their disease cannot adequately self-manage their illness. Lastly, education improves awareness among the targeted group of patients of the need to understand their diagnosis and treatment plans.

The identified gap in practice was nurses' lack of knowledge and thus an inability to provide evidence-based education to patients with a diagnosis of A-Fib (Ferguson et al., 2016). Due to the complexity of A-Fib, clinic staff may have insufficient knowledge about the illness. To add to the burden of managing the disease, there are numerous presentations of A-Fib (Thrysoee, Stromberg, Brandes, & Hendricks, 2017). Enhanced knowledge can help decrease uncertainty about symptoms and treatments.

Purpose Statement

The purpose of the project was to improve nursing staff knowledge about providing education to patients with A-Fib. The practice-focused question was as follows: Does an evidence-based educational offering on A-Fib increase knowledge among clinic nursing staff members. The knowledge gap was addressed by providing evidence-based education about the disease.

After conducting a pre-intervention knowledge assessment, the intervention was developed to provide evidence-based education to close the identified knowledge gaps about A-Fib care. After completing the offering, participants completed a post-intervention knowledge assessment to measure improvement in their A-Fib knowledge.

The anticipated outcomes of the project were improved knowledge and clinical care among nurses for individuals with A-Fib

Nature of the Doctoral Project

The A-Fib staff education project was carried out in a health facility in the Southeastern United States. I recruited LPNs and RNs in an ambulatory care setting: to volunteer for the project. Those who agreed to participate were requested to complete an informed consent form. A pretest and posttest were used to assess the differences in knowledge before and after the in-service education. I provided an in-service PowerPoint to participants. The results of the posttest after the education offering were disseminated through a project paper and a PowerPoint presentation for the clinic.

Significance

Stakeholders for the A-Fib education project included individuals with the disease, nurses who provide care for them, and providers in the specialty clinics. Nursing practice was affected by the implementation of evidence-based practice into the local setting. Due to the prevalence of A-Fib, the project implementation could be generalized to other health care settings. The education intervention can be delivered in various settings, including hospitals and ambulatory care clinics.

A-Fib is a chronic disease; thus, patients with the diagnosis need education, which influences how they manage symptoms that may be recurrent. Education about A-Fib enables patients to become active participants in their health care, while improving their self-management skills. Often patients who receive a new diagnosis of A-Fib have

limited knowledge about the illness. Their knowledge and beliefs can affect how they respond to symptoms, as well as the outcomes of care (McCabe, 2011). A major outcome in caring for the A-Fib population is quality of life (Strupeit, Bub, & Dassen, 2013). Outcomes related to increasing knowledge of clinic nursing staff contribute to enhancing patients' ability to decrease (a) symptoms, (b) emergency room visits, and (c) hospitalizations. Participation in the education project as expected to empower participants to become engaged actively in providing management tips and strategies to A-Fib patients.

According to Walden University- applying interventions that improve the health of individuals and societies contributes to positive social change ("Social Change," 2011-2012). This A-Fib education project for staff facilitated social change by improving knowledge among clinic nursing staff who provide care for the target population. Furthermore, approaches to improve the delivery of health care to patients with A-Fib will improve the quality of life for these patients and their families, resulting in improved health in the community (Heiman & Artiga, 2015).

Summary

The aim of this DNP project was to increase knowledge among clinic staff nurses in an ambulatory care setting caring for the target population: patients with A-Fib. Education of patients is a regular part of care delivery for patients with chronic illnesses. Improved knowledge is expected to enhance the target populations' ability to self-manage this chronic illness. Section 2 reviewed the background and context of this

project. Section 3 discussed the collection and analyses of evidence which supported this project. Section 4 documented the finding and recommendation of this project. Lastly, Section 5 examined the dissemination plan including self-analysis and my role as a DNP student.

Section 2: Background and Context

Concepts, Models, and Theories

The purpose of this DNP project was to provide staff education to staff nurses working in an ambulatory -care setting. Nursing models that helped provide evidence-based patient education included the chronic care model (CCM) and the eHealth chronic care model (eCCM). Effective education for patients with chronic illness is an expected role of nurses. Nurses who participated in the project learned evidence-based principles with which to teach patients about self-management of their illness.

The principal goals of chronic disease management include reducing the burden of illness while also providing care to prevent disease progression and complications. Among the barriers related to managing chronic diseases are patients who receive training that is adequate to self-manage their illness. An innovative model to improve care coordination is the CCM. It was positioned as a method for improving outcomes of care for individuals with a chronic illness (Bodenheimer, Wagner, & Grumbach, 2002; Holstein, 2018). It focused on proactively helping patients achieve their highest level of health possible while living with a chronic disease. An exchange of effective education between the practice team and patients contributes to informed patients who are active participants in their care. Improvements in chronic care includes support from health care professionals so that patients can self-manage their disease.

A form of the CCM, the eHealth enhanced chronic care model (eCCM), was used in this evidence-based project. According to Eysenbach, Colorafi, and Baker (2015),

eHealth, as applied to chronic illnesses, can provide (a) a new approach to promoting self-management and (b) technologies to generate optimum levels of health management knowledge. The model's components of self-management support, delivery system design, clinical decision support, clinical information systems, and ehealth education can be used to enhance the delivery of cardiovascular patient education. CardioSource is an app that can be used to educate staff about A-Fib. CardioSource uses animations and graphics to explain cardiac conditions (CardioSource WorldNews, 2015). Education enables clinic nurses to use the app in delivering patient education. The app is useful for summarizing care topics discussed during the clinic visit. The app also is useful for providing expanded and enhanced eHealth patient education. It also serves as a readily available educational resource for nurses. Using an eHealth app provides information to encourage patient self-management and decision making (Eysenbach et al., 2015). Using the CCM model provided insight into how the nurses can use the eCCM tool to improve patient self-management skills and provide support to individuals with A-Fib.

Relevance to Nursing Practice

Historically, health care has been delivered primarily in the acute care setting. To address issues about the needs of individuals with a chronic illness, (Bodenheimer, Wagner, & Grumbach (2002), a system redesign occurred and resulted in care delivery that focused on chronic care. The CCM has significant value to the nursing profession, because it provides disease-specific ways to improve outcomes for patients with long-term medical conditions. Management of A-Fib patients requires a comprehensive

approach and is often managed by a multidisciplinary team. Using evidence-based principles to care for A-Fib patients helps provide safe and effective self-care management of the illness (Robinson & Ami, 2019).

Due to the growing number of individuals with heart disease, there is an opportunity for nurses to have a larger role in educating patients about A-Fib. Nurses already have a significant role in providing support and information to the patients with A-Fib as they strive to obtain a better understanding of their condition (Elliott, 2014). In patients with an A-Fib diagnosis, it is crucial that they possess knowledge and self-management skills about the pattern of the arrhythmia presentation, the effects of coexisting conditions, and decisions about preventing repeated episodes (Mousa, 2015). Nurses who care for the target population are tasked with knowing the symptomology and management of the disease and providing effective education. Lastly, the effectiveness of nurses delivering education to the target population was demonstrated by Qvist et al. (2016). A nurse-led A-Fib clinic that provided patient education reported decreased costs and an improvement in the patients' quality of life. The clinic used components of a custom evidence-based plan to deliver effective patient education. Therefore, empowering nurses to deliver education to this target group of patients has demonstrated its effectiveness.

Local Background and Context

The A-Fib educational project occurred in a health facility located in the Southeastern region of the United States. Facilities within the healthcare network have a

national incidence of 6,000 admissions annually, of which 14% to 36% of admissions are attributed to A-Fib (Spotswood, 2016, p. 4). Health care providers within the facilities encounter patients with the diagnosis at an increased incidence as compared to providers within the community setting. According to PR Newswire U.S. (2014), there is a mismatch in information about communication, patient education, treatments, and outcomes about A-Fib and stroke. The need for continuous patient education is an important factor in caring for these patients. A survey of newly diagnosed patients analyzed knowledge levels and understanding of newly diagnosed A-Fib patients at baseline and at 6-month follow-up. The knowledge levels were found to be only 50%, and they remained near that level at the 6-month interval (Kaufman et al., 2018). Thus, it is important to provide sustainable education to this target population.

There are additional challenges about living with A-Fib for both patients and their caregivers due to effects on their family, social, and economic well-being. Among the challenges identified by health care providers about educating patients about the disease are inconsistent understanding of medication adherence, resistance to the treatment plan, and the need for more information (PR Newswire, 2014). All healthcare practices have a major role in managing chronic illness and the proposed education intervention was delivered to a cohort of nurses working in a rehabilitation facility. These nurses are on the first line of A-Fib patient care and provide opportunities for accessible and continuous care coordination (Davy et al., 2015).

The current method of managing A-Fib patients at the project site was that patients were identified with a diagnosis of A-Fib and a consultation request was submitted to the specialist team to manage the illness. However, the specialty teams were unable to meet the demands due to the large number of requests. Additionally, due to co-existing illness and chronicity, patients then present to multiple health care providers. Although the specialty team may see the patient for an initial visit and evaluation, ideally co-management should occur from within the healthcare team. An individual who receives a new diagnosis of A-Fib may be overwhelmed by decisions and management of the illness, so a nurse must have the ability to engage the patient in their treatment plan and goals (Elliott, 2014). Nurses are also well-suited to provide ongoing education for their patients. Therefore, the roles of health care professionals, including nurses must be expanded to meet the needs of a growing number of adults with chronic health conditions such as A-Fib.

The project education intervention was developed to provide information about caring for individuals with the diagnosis of A-Fib and was delivered as an in-service offering. The project used the chronic care model to promoted self-management and decision support. Staff members who received the in-service A-Fib education offering were nursing staff employed in the inpatient and ambulatory care setting. The projected potential number of nurse participants was between 30 and 50. The pre- and post-education assessments were conducted using the atrial fibrillation knowledge scale (Hendriks, Crijns, Tieleman, & Vrijhoef, 2012). The tool was developed to identify

knowledge gaps in A-Fib patients and was used for the project to assess baseline and post-education knowledge levels in the nurse participants. The scale consisted of 11 questions about A-Fib symptoms and treatments (see Appendix A). The tool is useful in the outpatient or ambulatory care setting and can be modified to meet the needs of individual learners (Qvist et al., 2016). Written permission has been obtained from the author to use the scale for the DNP project (see Appendix B).

Role of the DNP Student

I am a nurse practitioner employed in an ambulatory care arrhythmia clinic. The clinic evaluates and treats patients with an arrhythmia diagnoses including A-Fib. My role in the doctoral project was project leader. The project was not conducted in my current clinical setting. However, I have a connection to the general target population due to seeing a great number of patients in my pacemaker-cardiac defibrillator clinics who have a diagnosis of A-Fib. My clinical practicums have focused on care for cardiology patients, including patients seen in the arrhythmia, pacemaker, heart failure, and cardiac rehabilitation clinics. During the clinical practicums, I participated in a cardiology patient education group project. My motivation for the doctoral project was the opportunity to design and implement an evidence-based education intervention. There was a possibility of bias as I have some familiarity with the target population. However, I do not have a background in rehabilitation and its care delivery; therefore, working with a different care team may have offset the possibility of bias. The gap-in-practice about nurse limitations

in knowledge of A-Fib, which provided an opportunity to conduct a project that would potentially contribute to improved outcomes of care for the patients.

Summary

To summarize, A-Fib is a chronic illness that often can be treated but not completely cured. Nationally, there is a high incidence of this chronic illness, which contributes to higher health care costs at a time when benefits are diminishing. The CCM was proposed to support implementing an educational project for LPNs and RNs who work in primary care ambulatory care clinics. Additionally, the e-CCM was used to expand accessibility to readily available educational materials. Nurses are often the initial contact when patients present for clinic visits. Therefore, at the front line of rehabilitation care, nurses are an ideal group for directing and providing education for the targeted patient population. The health facility has a large number of patients who have a diagnosis of A-Fib and a higher incidence of A-Fib than the general community population of the area. Consequently, there was an indication of the need to provide an intervention with a goal of increasing knowledge regarding the arrhythmia among the clinic nurses so that they could provide evidence-based educational support to their patients. The literature review further supported the need to improve outcomes of care about gaps in educating patients with the diagnosis of A-Fib. Section 3 will provide discussion about the collection and analysis of the evidence which supported the project.

Section 3: Collection and Analysis of Evidence

Introduction

The clinical practice problem addressed was the need to improve nursing staff knowledge about the heart disease, A-Fib. As noted by the CDC, the number of individuals with the diagnosis is projected to increase. The gap in practice was identified as a lack of nursing knowledge about educating patients with A-Fib. This gap is due in part, to the complexity of the disease and its treatment plans. This arrhythmia is chronic and classified in three stages: paroxysmal, persistent, or permanent (Qvist et al., 2016). Paroxysmal A-Fib is present at times and then stops. It can last from a few seconds to hours or days. Persistent A-Fib generally requires medication and or treatment to return to normal rhythm. Permanent or long-standing A-Fib does not respond to medications or electrical shock to correct the rhythm (Heart Rhythm Society, 2019).

Practice-Focused Question(s)

The purpose of the project was to improve the knowledge of nursing staff in teaching patients with A-Fib. There were two practice-focused questions: (a) Does participation in an evidence-based education project increase staff nurses' knowledge scores about providing care for patients with A-Fib? (b) How likely are the nurses to use the information in the A-Fib presentation in providing education for individuals with a diagnosis of A-Fib?

Sources of Evidence

A review of the literature was performed to examine evidence-based interventions to provide current, accurate, and effective education to patients diagnosed with A-Fib. Sources of evidence included peer-reviewed articles and journals from CINAHL, PubMed, and Medline. Search terms used included *patient education, chronic care models, atrial fibrillation, nursing knowledge*, and combinations of these terms. The following inclusion about providing criteria were required: participant who were 18 years or older and diagnosed with A-Fib; articles on the role of nurses in providing patient education to these patients; articles in English.

Analysis and Synthesis

The literature used to support the project met the inclusion criteria. It was published primarily between 2014 and 2019 - the most current evidence. Articles were selected if they provided supportive information about the target population and were pertinent to nursing's role in patient education. The literature was evaluated using levels of evidence (Fineout-Overholt, Melnyk, Stillwell, & Williamson (2010, which ranks evidence using levels from I to VII. The Walden University Intuitional Review Board application was approved prior to any data collection for the project (Approval No. # 04-17-20-0727128. Deliverables for the project included a comparison of the findings from the pre-and postintervention surveys, as well as recommendations for the practice changes at the clinical site and future applications of the information in nursing practice, education, and research.

Summary

The DNP project purpose was to improve knowledge of nurses who provide care for the target population of individuals with a diagnosis of A-Fib. A-Fib is a significant health issue and is projected to increase over time. The literature demonstrated gaps in knowledge regarding the disease among providers of care for the target population. Literature databases were searched and articles were reviewed for evidence to support the project using predetermined inclusion and exclusion criteria.

Section 4 presents the findings of the literature review and recommendations.

Section 4: Findings and Recommendations

Introduction

In Southeastern area of the U. S., the mortality rate for cardiac disease was 23%, A-Fib is ranked as the 9th highest cause of cardiac deaths (American Heart Association., 2020, para.1.) For the state of Kentucky, the statistics are extremely alarming: (1) cardiac disease is the leading cause of death and (2) stroke is listed as the fifth highest contributor to death. Additionally, the population experiences a higher age-adjusted mortality as compared to other states (Kentucky Heart Disease and Stroke Prevention Program) (2011). The patient population at the project site was individuals "who have experienced a cerebral vascular accident, an injury to their spinal cord, neurological and orthopedic conditions." The gap in practice was that nurses lacked knowledge about providing evidence-based education to patients with A-Fib (Ferguson et al., 2016). The practice-focused question was: Does participation in evidence-based education intervention increase nurses' knowledge scores about providing care for patients with A-Fib? The intervention was an educational in-service. The practice site is interested in A-Fib diagnosis and control because cerebral vascular accidents often arise from emboli generated by A-Fib. Health education is an important way to help patients who have experienced a cerebral vascular accident or cardiac event. According to (Kadda, Marvaki, & Panagiotakos, 2012), the educational needs of such patients includes teaching, support, supervision and reinforcement.

The sources of evidence used for the project included systemic reviews, randomized controlled trials, quasi-experimental cohort studies, qualitative research, and the opinions of authorities/experts. The evidence was analyzed using levels of evidence according to (Bernadette, (2004), and according to Fineout-Overholt, Melnyk, Stillwell, and Williamson's (2010); they rank evidence from Level I to VII). Other evidence was obtained from studies that provided information about the role of nurses in educating the target population of individuals with A-Fib.

The major findings from the literature review were as follows: there is a gap in knowledge about teaching patients with A-Fib. The gap can also appear in health care providers. Supportive evidence-based education can improve nurses' knowledge and improve outcomes and outcomes for the target population. Individuals should assume an active role in self-managing their illness (Epping-Jordan, Pruitt, Bengoa, & Wagner, 2004).

Findings and Implications

The purpose of the project was to determine if an evidence-based nursing education intervention increased knowledge scores of nursing staff who cared for patients with A-Fib. According to my project mentor, the facility employs about 150 licensed nursing staff, including (LPNs) and (RNs) (personal communication May 21, 2020). Data were collected from a convenience sample of nurses who provide care for individuals who have diagnosis of A-Fib. I anticipated that approximately one-third of the nursing staff would participate in the intervention; however, the level of participation was 20%.

The level of participation may have been affected by change in work assignments and limitations about the 2020 pandemic of COVID-19. Thus, the total number of project participants was 31.

The analysis strategy was to compare the pre-education mean knowledge score to the post-intervention mean knowledge scores using a *t*-test. An Excel spreadsheet was compiled to compare the pre and post intervention scores. The data were then analyzed using a two-sample *t* -test assuming equal variance to calculate the differences in scores. The pre-intervention mean was 8.93 correct answers, while the post-intervention mean was 9.67 correct answers.

The paired *t* test performed to compare the mean scores demonstrated an increase in the mean; however, the results were not statistically significant ($p = .08$). An explanation may be that the mean score before the intervention was already high, leaving little room for improvement on the post-intervention knowledge questions. Most participants commented that the educational presentation was useful and that that they would incorporate the information into their practice.

An unanticipated limitation was that due to COVID-19 restrictions the educational intervention was presented as a Power- Point, which was downloaded into the Advancing Clinical Excellence through Information Technology (ACE IT) educational system of the facility. Starting on May 26, 2020 nursing staff had an opportunity to access the presentation after reading the consent form prior to accessing the information. The pre- and post - intervention data collection ended on June 18th, 2020

The implications from the project include a nonstatistically significant improvement in knowledge scores among clinical nursing staff providing care for individuals with a diagnosis of A-Fib. By increasing knowledge of clinical nurses who provide care for individuals with A-Fib, the project may impact patients and providers, and possibly lower healthcare costs about the disease. Healthcare resource demands and costs have escalated due to caring for increased numbers of individual with chronic illnesses. The demands affect health care organizations, individuals with chronic diagnoses and their families. (Epping-Jordan, Pruitt, Bengoa, & Wagner, 2004).

Utilizing methods by which to improve care delivery to A-Fib patients   can improve quality of life for these individuals and their families, which in turn can improve health outcomes within the community. Institutions and systems are impacted by an improved delivery of care which results in lower cost of care and improved quality of life as noted by (Epping-Jordan et al., 2004).

The A-Fib education project provided an opportunity to promote social change by improving knowledge levels of clinical nursing staff who provide care for the target population. The conceptual framework for the project was the CCM. A goal of the model is to improve outcomes of care for individuals with chronic medical conditions (Bodenheimer et al., 2002). An improvement in knowledge levels among nursing staff caring for the targeted population can result in enhanced healthcare team interactions and a higher percentage of informed patients as noted by (Bodenheimer et al., 2002). The

improved levels of knowledge will enhance the target population's abilities to self-manage and potentially avoid exacerbation of their illness.

Strength and Limitations of the Project

The strength of the project was that it provided an opportunity to assess the knowledge of nurses who provide care for the target population in a real-life clinical setting. The analysis of the project data determined that an educational intervention demonstrated a small but nonsignificant improvement in knowledge scores among nurses in the clinical setting. However, due to the COVID pandemic access to the clinical staff was limited and may not have been representative of the education needs of the entire nursing staff. The clinical nursing staff had additional roles and responsibilities about the pandemic which may have affected the number of individuals willing to participate in the project. The project provided an opportunity to impact social change by improving knowledge among health-care providers who might be helpful in educating individuals with A-Fib. Improved nursing knowledge potentially can translate into fewer exacerbations in the illness, clinic appointments, emergency room visits, and hospitalizations. According to (the Stroke Association 2016), the percentage of patients with A-Fib having a recurrent stroke is between 25% and 33%. Implementation of the project in a clinical facility that provides rehabilitations services to stroke patients could potentially impact social change by preventing another stroke. Thus, the decrease rates of relapse and recidivism for this population of patients could contribute to positive

outcomes for individuals, health-care organizations and society as a whole (Qvist et al., 2016).

Recommendations

The project demonstrated that education of clinical nursing staff regarding evidence-based knowledge that is essential for patients and their caregivers about the diagnosis of A-Fib can be accomplished using an online learning platform. The project was supported by clinical staff within the facility. The participants of the A-Fib education project were asked: How likely is it you will use the information presented in the A-Fib presentation in providing education for individuals with a diagnosis of A-Fib? Using a Likert scale of 1- to 5, the mean value of responses was 4.32. Nineteen participants indicated their intention to use the education response at a value of 5. Interest was shown by other heath disciplines within the facility regarding the project as well. The facility health educator suggested that the project could possibly be used in the orientation for new staff. Section 5 will discuss how the project was disseminated to clinical leaders at the project site.

Section 5: Dissemination Plan

My plan to disseminate the project's results to the facility's leadership included using a PowerPoint presentation. Interest was shown by facility staff and the dissemination plan included modifying the intervention for a wider audience of the health-care providers who care for the A-Fib population, that is, physicians, physician assistants, social workers, and nutritionists. Currently, healthcare delivery and access including education is impacted by restrictions about the COVID-19 pandemic, thus an appropriate setting for dissemination of the project was a video-based presentation. This mode of health education delivery provided an opportunity for clinicians to receive and deliver evidence-based education. The educational information will be made available for staff members to review as they desire.

Self-Analysis

My pursuit of the DNP degree was to complete a personal journey of improving my knowledge as an APN. The nursing profession is constantly evolving. It is my belief that the nursing profession nudges us to constantly seek advanced levels of knowledge and skills. By obtaining the DNP degree, I will have obtained an advanced level of knowledge which can be translated into helping to improve the health of populations and overall national health as identified by Essential VII (American Association of Colleges of Nursing 2006). My goal is to improve the outcomes about using evidence-based interventions when caring for individuals with chronic cardiac diseases.

Role as a Scholar

My clinical interests include improving education about patients with a diagnosis of A-Fib. Due to the chronic nature of the disease, education methods may need to be innovative in order for knowledge retention to occur. I will continue to pursue research on evidence-based education methods and use my knowledge to educate clinicians, patients and their caregivers regarding this chronic cardiac arrhythmia. Using feedback from the project-site facility educator, I will contemplate revising the educational intervention so that it may be of utility to a wider audience.

Summary

This evidence-based project designed an educational presentation for clinical nursing staff who provide care for individuals with A-Fib. The project was developed to determine if knowledge scores among the targeted staff would increase after receiving the educational intervention. The atrial fibrillation knowledge scale was used to determine pre-and-post intervention scores. The intervention demonstrated promise as a method to improve knowledge gaps for clinical nursing staff providing care for this targeted population. Although participants' knowledge scores demonstrated a small increase, to determine using the intervention for a broader audience beyond the facility, the project would need to be replicated using a larger, more diverse group of participants.

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Appendix A: Atrial Fibrillation Knowledge Scale

1. What are the trigger factors for atrial fibrillation?
   □ Allergy to grass, animals or house dust
   □ Alcohol, coffee or spicy food
   □ Noise or loud sounds

2. Why is it important to take my medication for atrial fibrillation properly?
   □ Because the doctor wants me to
   □ To prevent severe consequences of the arrhythmia
   □ To prevent the possibility of a heart attack or sudden death

3. If atrial fibrillation is identified without the patient experiencing any complaints, the patient should immediately visit the hospital.
   □ True
   □ False
   □ Don't know

4. What is atrial fibrillation?
   □ A heart disease in which the heart is not able to pump a sufficient amount of blood through the body
   □ A blood disorder causing blood clots in the heart
   □ An electric disorder in the atria of the heart which results in the heart contracting too fast and irregularly

5. Why is oral anticoagulation medication prescribed in certain patients with atrial fibrillation?
   □ To prevent the risk of blood clots which can cause a stroke
   □ To make the blood flow more easily through the body
   □ To prevent fluid retention in the body

6. Why should a person using anticoagulation medication be careful with the use of alcohol?
   □ Alcohol increases the retention of fluid in the body resulting in the blood becoming too thin
   □ Alcohol causes a blockage of the blood vessels which in turn, slows blood flow to the heart
   □ Alcohol influences the effect of the medication and this effects the clotting ability of the blood

7. Atrial fibrillation is a rare condition.
   □ True
   □ False
   □ Don't know

8. It is particularly risky if a person does not feel his/her atrial fibrillation.
   □ True
   □ False
   □ Don't know

9. Which statement with regard to physical exercise is true of patients with atrial fibrillation?
   □ It is important for patients to rest in order to maintain normal heart activity
   □ Patients with chronic atrial fibrillation cannot work fulltime
   □ It is important to exercise normally within personal limitations

10. Which statement is true?
    □ Atrial fibrillation is life endangering because it can result in a heart attack
    □ Atrial fibrillation is completely harmless
    □ Atrial fibrillation is harmless if the right medication is taken

11. What is the function of the thrombosis center?
    □ To monitor blood clotting and the number of tablets taken each day
    □ To determine if the arrhythmia is present
    □ To determine if the patient needs to continue taking oral anticoagulation

Appendix B: Dr. Hendrik's Permissions to Use Atrial Fibrillation Knowledge Scale

From: Happy, Rose

Sent: Friday, July 5, 2019 9:12 AM

To: rose.happy@waldenu.edu

Cc: 'rhapp2@aol.com' <rhapp2@aol.com>

Subject: FW: The atrial fibrillation knowledge scale

From: Jeroen Hendriks <jeroen.hendriks@adelaide.edu.au>

Sent: Thursday, July 4, 2019 2:38 AM

To: Happy, Rose <Rose.Happy@va.gov>

Subject: [EXTERNAL] RE: The atrial fibrillation knowledge scale

Dear Rose,

Thanks for your email and your interest in the AF knowledge scale.

Your project sounds very interesting and is of great importance to further optimize the management of AF

patients.

I am happy for you to use the scale and would require that you reference the scale in all related documents

or publication. Please feel free to contact me if you have any further questions and good luck with the

Capstone Project.

Kind regards,

Jeroen Hendriks

Dr. Jeroen Hendriks, RN, MSc, PhD, FESC, FCSANZ

Derek Frewin Senior Lecturer

Heart Foundation Future Leader Fellow

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T: +61 8 8128 4487 or +61 8 8128 4595 | F: +61 8 7074 6182

E: Jeroen.Hendriks@adelaide.edu.au

W: http://www.adelaide.edu.au/directory/jeroen.hendriks

From: Happy, Rose [mailto:Rose.Happy@va.gov]

Sent: Wednesday, 3 July 2019 10:22 PM

To: Jeroen Hendriks <jeroen.hendriks@adelaide.edu.au>

Subject: The atrial fibrillation knowledge scale

Hello Dr. Hendriks,

My name is Rose Happy, I am enrolled in the Doctor of Nursing Practice program at Walden University.

My Clinical Capstone Project has a focus of education for staff members caring for patients with a

diagnosis of atrial fibrillation. The Capstone project is being conducted to fulfill requirements so that I may

complete the DNP degree. I am contacting you to request permission to use the atrial fibrillation knowledge scale for my Clinical Capstone.

I am appreciative of your response to my request. My contact email is rose.happy@va.gov. Mailing address Rose Happy 429 Anderson RD Georgetown, KY 40324. Telephone: (859) 233-4511 extension 5670

Sincerely,

Rose Happy APRN

Doctoral Student

Walden University