

BREAKING BAD NEWS: PROVIDING COMMUNICATION GUIDANCE TO
DOCTOR OF NURSING PRACTICE (DNP) STUDENTS

by

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As members of the DNP Project Committee, we certify that we have read the DNP project prepared by Melanie Martin, titled *Breaking Bad News: Providing Communication Guidance to Doctor of Nursing Practice (DNP) Students* and recommend that it be accepted as fulfilling the DNP project requirement for the Degree of Doctor of Nursing Practice.

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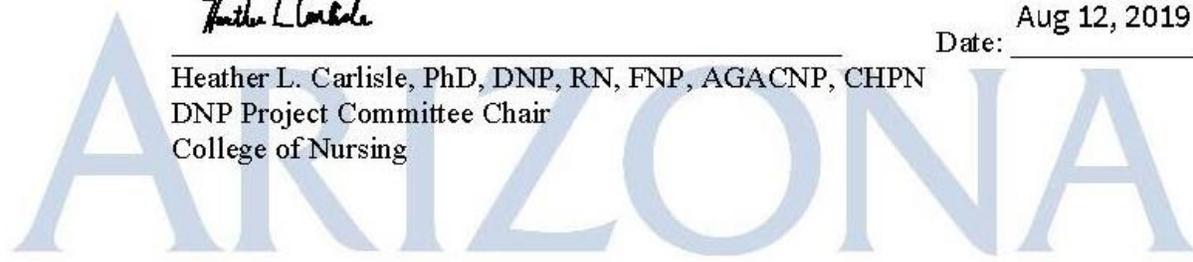
Final approval and acceptance of this DNP project is contingent upon the candidate's submission of the final copies of the DNP project to the Graduate College.

I hereby certify that I have read this DNP project prepared under my direction and recommend that it be accepted as fulfilling the DNP project requirement.

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DEDICATION

This project is lovingly dedicated to the memory of my sweet husband Clint. May his memorable path inspire courage and peace, prevent prolonged suffering and strengthen loving relationships.

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ABSTRACT

Background: Palliative care and end of life care both emphasize quality of life through symptom management, and are becoming increasingly utilized in our society. Often, these services are accessed too late for patients to receive all the benefits offered. In part, this can be attributed to primary care providers initiating these difficult discussions after the patients' condition is too far advanced. Therefore, it is important to encourage primary care providers to initiate conversations early enough for patients to reap the full benefits of these treatments.

Purpose/Aim: The purpose of this quality improvement project was to increase family nurse practitioner students' knowledge of the FNP's role in introducing PC and EOL care, and to increase their self-efficacy in initiating difficult conversations with patients and their loved ones. The project aimed to achieve this through the use of an online learning module and video demonstration.

Methods: Written material and a video demonstration were assigned to an existing graduate-level FNP course. Optional pretests and posttests were performed using an adaptation of a validated survey. RedCap was used to deliver the survey and collect the data.

Outcomes: Eleven students participated in this project. Results on both knowledge and self-efficacy indicated notable improvements between pretests and posttests in nearly all areas. Participants responded that this module was useful and the scenario similar to what they expect to encounter in their future practice.

Keywords: End of life care, hospice care, palliative care, self-efficacy, communication, interviews as topic, healthcare providers, family nurse practitioners, video-audio media.

INTRODUCTION

As the US population ages it is imperative that timely, effective, and sensitive communication occur regarding palliative care (PC) and end of life (EOL) care. Patients receiving PC and EOL care, specifically patients receiving hospice care, benefit from emotional support, symptom control, and are less likely to be subject to aggressive interventions than patients who are not (Manu et al., 2013). Although hospice and palliative care are similar, there are marked differences. Hospice is a holistic care program for terminally ill patients designed to provide comfort care rather than curative treatment. It offers care and support during the last six months of life, as well as supportive services to the family members of the patient (Medicare, n.d.). There were 1.4 million patients enrolled in hospice in 2015, the year the most recent data was available for this topic (United States Centers for Disease Control [CDC], 2015). Palliative care is not specifically for those with six months or less to live. It is a specialized branch of healthcare designed for improving the quality of life of people living with a serious illness who need symptom relief. An estimated six million people living in the United States could benefit from receiving palliative care (Center to Advance Palliative Care [CAPC], n.d.). Unlike hospice, curative treatment and palliative care can be provided simultaneously (CAPC, n.d.).

Background and Significance

Although hospice rates have nearly tripled in recent years (National Hospice and Palliative Care Organization, 2016), discussions about PC and EOL care are often delayed until the patient is approaching their last few days of life, when little can be done to improve their quality of life (Freund et al., 2012; Walsh-Childers & Braddock, 2014). The current median length of stay in hospice is 17 days (Medpac, 2016), suggesting that earlier EOL conversations

are not being carried out at all, or not carried out effectively. Therefore, it is crucial that primary care providers (PCPs) have PC and EOL conversations with patients and their families in a timely manner about the benefits of PC and hospice in EOL care to maximize the benefit of this treatment and avoid undergoing unnecessary treatments that are unlikely to benefit the patient (Walsh-Childers & Braddock, 2014).

One way to promote timely initiation of PC and EOL conversations is to educate PCPs on how and when to discuss this sensitive topic (Visser, Deliens, & Houttekier, 2014). PCPs receive little training on this topic, and implementing educational interventions on initiating EOL care will improve their self-efficacy with initiating these discussions (Tully, 2017). Therefore, the focus of this project is to promote initiation of PC and EOL conversations through education.

Primary Palliative Care

An understanding of the importance of the benefits of PC and EOL care is essential for PCPs. Palliative care provided by clinicians such as PCPs, cardiologists and oncologists rather than palliative care specialists is frequently referred to as “primary palliative care.” According to Gorman (2016), “PC should begin in primary care,” so PCPs should become adept at initiating and providing generalist PC. Additionally, PCPs need to be familiar with how and when to refer a patient to a specialist PC provider so patients will not be subjected to unmanaged symptoms or unnecessary care due to lack of PC and EOL discussion (Gorman, 2016). The number of primary care trained nurse practitioners (NPs) is on the rise (Dall, West, Chakrabarti, & Iacobucci, 2015), and NPs’ integration of both palliative and end of life care is essential in providing comprehensive, culturally competent primary care to patients from diverse and vulnerable populations (Gorman, 2016).

Delivering Bad News

Delivering bad news can be one of the most important yet challenging tasks required of medical professionals (Arnold & Koczwara, 2006). PCPs believe that they should initiate EOL discussions, and most agree that the bulk of this responsibility lies on the PCP, and other roles should manage various elements of caring for the patient, such as the nurse clarifying treatment plans, providing support and comforting patients (Nedjat-Haiem et al., 2017). PCPs should be supportive and skilled in communicating EOL and PC with families regarding decision-making for their terminally ill loved ones (McRee & Reed, 2016). Unfortunately, healthcare providers typically lack both EOL knowledge and techniques to effectively speak to patients and their families sensitively about EOL care (Brickner, Scannell, Marquet, & Ackerson, 2004; Visser et al., 2014).

Barriers to Difficult Conversations

Patients want discussions about EOL care, and they assume that the PCP will initiate this discussion (Patel, Janssen, & Curtis, 2012). Unfortunately, this does not always happen because many providers hesitate initiating EOL conversations due to discomfort with patients' emotions, insufficient communication skills, and concern about extinguishing the patients' sense of hope (Houben, Spruit, Groenen, Wouters, & Janssen, 2014; Patel et al., 2012). Not having the skills necessary to communicate effectively and thoroughly in a sensitive manner while dealing with patients' inevitable emotions on this topic makes breaking bad news a topic that many PCPs would rather postpone until it is too late for the patient to receive the full benefits of PC and EOL care (Houben, Spruit, Groenen, Wouters, & Janssen, 2014). Despite feelings of discomfort, these

conversations are important because advance care planning improves the chances of the patients' EOL wishes becoming fulfilled (Houben, Spruit, Groenen, Wouters, & Janssen, 2014).

PC and EOL Education for Healthcare Providers

Medical Schools

PC and EOL education for PCPs has substantially improved in recent decades. Today's medical students have greater exposure to PC and EOL training than their predecessors. In 1975, 71% of students participated in EOL workshops or modules within a course totaling several hours (Dickinson, 2011). As of 2010, 100% of medical students participated in similar workshops or lectures, and PC education is offered in 99% of U.S. medical schools, usually as a section of a course rather than an individual course (Dickinson, 2011; Head et al., 2016), yet medical students continue to feel unprepared to address issues with patients upon graduation (Head et al., 2016).

Although medical schools offer an average of 17 hours of education on death and dying (Dickinson, 2011), the total amount taught is not sufficient for all students to feel like they received enough training on how to properly treat patients EOL patients using PC. According to the Association of American Medical Colleges (as cited in Committee on Approaching Death: Addressing Key End of Life; Institute of Medicine, 2015) approximately 80% of the graduating medical students surveyed felt the level of instruction they received in palliative care and pain management was appropriate, and approximately 20% felt it inadequate. Research shows that medical students with increased exposure to EOL curricula report feeling more prepared to treat EOL patients (Billings, Engelberg, Curtis, Block, & Sullivan, 2010).

Nurse Practitioner Programs

EOL and PC is not addressed to the same extent in nurse practitioner programs. Although nurse practitioners are uniquely prepared to address patients' needs and improve their EOL care, little information is included within graduate nursing curricula about EOL and PC (Paice et al., 2006). A study involving academic deans from nurse practitioner programs indicated that PC education is either extremely or very important, yet it is not taught extensively due to a full curriculum or lack of faculty expertise in this area (Jensen-Seaman & Hebert, 2016). PC education is absent from most nursing curricula and, when this coursework is offered, it is usually within the context of other courses or offered as an elective (Jensen-Seaman & Hebert, 2016; Paice et al., 2006), suggesting that educating nurse practitioner students about this topic is not considered a relatively high priority. These deficiencies are compounded by the lack of attention to palliative care in nursing textbooks, where only 2% of the content addresses EOL care (Ferrell, Virani, Grant, & Juarez, 2000).

While there is little to no formal training in the PC or EOL care within nurse practitioner programs, family nurse practitioners (FNPs) are expected to be able to address these issues with their patients and provide PC and EOL services to their patients when appropriate (Thomas et al., 2017). The National Organization of Nurse Practitioner Faculties (NONPF) guidelines state that one of the doctor of nursing practice (DNP) core competencies is to competently manage patients by using the full spectrum of health services available, including PC and EOL care, suggesting that this should be a topic taught as part of the DNP curricula (Thomas et al., 2017). Additionally, there is the expectation FNPs should possess the communication skills required to educate and guide patients and their families through complex situational transitions, such as the

decisions that come when faced with bad news (American Association of Colleges of Nursing [AACN], 2006).

Nursing Schools

PC and EOL care is certainly not limited to physicians and nurse practitioners. Hospice and palliative medicine is an established medical specialty with a variety of certification boards, including certifications for advanced practice nurses and registered nurses (Institute of Medicine [IOM], 2015). In fact, the American Association of Colleges of Nursing (AACN) emphasized that palliative care is important in nursing education, and bachelor of science in nursing (BSN) students should be able to improve care for seriously ill patients and their families by working with and leading inter-professional teams (AACN, 2016).

Impact on Patients and Providers

When PC and EOL communication is not taught, healthcare providers typically lack both EOL knowledge and techniques to effectively speak to patients and their families sensitively about EOL care (Brickner et al., 2004; Visser et al., 2014). This can result in delayed PC and EOL treatment. Hospice admissions can take place when a patient is expected to live six months or less, yet over 40% of patients in hospice receive two weeks or less of care (National Hospice and Palliative Care Organization, 2017). This implies that these patients and their families are unable to fully experience the quality of life benefits offered by PC and EOL care, such as access to a hospice worker 24 hours a day, seven days a week for pain management, emotional and spiritual support, medication and equipment, respite care, grief counseling and symptom control (National Hospice and Palliative Care Organization, 2017). Not only are they less focused on quality of life, they are more likely to be subject to aggressive interventions than patients not

receiving hospice care (Manu et al., 2013).

PC and EOL Specialists

While PC certifications are available and EOL care is taught to healthcare providers, the supply of palliative care and hospice specialists is limited, causing patients to often rely on clinicians untrained in PC and EOL to meet their patients' palliative care needs (IOM, 2015). The Institute of Medicine (2015) recommends increasing the number of palliative care specialists and expanding the knowledge base for all clinicians who care for people with advanced serious illness. Educational institutions, such as universities, should provide training in PC and EOL care, and should commit institutional resources to training in palliative care (IOM, 2015).

Local Problem

University of Arizona

The University of Arizona (UA) currently has 127 family nurse practitioner (FNP) students in its DNP program (V. Kogut, personal communication, December 11, 2018). The program entails seven semesters of coursework and 720 hours of clinical training (University of Arizona College of Nursing, 2018).

The University of Arizona College of Nursing's (UA-CON) program guide adheres to the standards established by the National Organization of Nurse Practitioner Faculties (NONPF) (UA-CON, 2015), including its standards set for teaching PC. Students in the program have three ways of learning about palliative care: 1) embedded in the required coursework; 2) exposure during their clinical rotations; and, 3) as an elective course or series of courses (UA-CON, 2018).

In the required coursework, PC is addressed in the final semester during a three-unit course entitled *Issues in Gerontological Health* (NURS 681). The course covers this topic by

assigning required readings, which entail one chapter about PC from a geriatrics textbook and an article about advanced directives. This course also includes an optional article about quality of life in geriatric oncology patients, which touched on PC and EOL care. No assignments are required for this topic, and no tests cover this material as well (Martin-Plank & Brown, 2018). As the program's only required reading about PC or EOL care is limited to a small portion of material covered in one unit of one course, students are likely not receiving adequate information about this topic in the required content of their FNP education.

Other than learning about PC from coursework, students may be exposed to this topic in their clinical rotations. However, students do not always have the opportunity to learn these communication skills in their clinical rotations. The students' opportunity to be present when patients are told about a poor prognosis depends on whether the student happens to be present on the day these conversations occur. There is no specific requirement that students participate in such conversations (UA-CON, 2017). If the student is fortunate enough to have this opportunity, their preceptor may lack the communication skills or teaching ability to properly train the student how to thoroughly and sensitively deliver bad news (H. Carlisle, personal communication, February 19, 2019).

The third way that UA-CON FNP students can learn about palliative care is through an elective. One of the elective courses is a one-credit course entitled *Introduction to Palliative Care* (NURS 689). The content is intended for generalist practitioners, and it provides an introduction to palliative care concepts, management of common symptoms, and methods of communication (UA, 2019b). Two additional three-credit courses are available for students intending to specialize in palliative care (UA, 2019b). However, it should be noted that the DNP-

FNP program does not require that students take any elective courses (UA-CON, 2018). In addition, tuition is billed per credit rather than a lump sum for each academic term, so students who desire to take an elective course must pay extra money to do so (UA, 2019a). Consequently, enrollment in the palliative care courses has decreased significantly over the past four years (H. Carlisle, personal communication, February 19, 2019).

Tucson, Arizona

It is especially important for students who remain in Tucson, Arizona, after graduation to acquire skills in having difficult conversations with patients. Nearly 70,000 of Tucson residents are aged 65 and older (United States Census Bureau, 2018) and will likely require a conversation where bad news is delivered at some point in their lives. Providing students with education in how to have difficult conversations will prepare them for when they encounter this situation. Giving students guidelines, as well as an example of how to sensitively handle difficult conversations, will increase their communication skills in providing all available care options to patients and the patients' loved ones. Furthermore, it will decrease the noted barrier of provider discomfort by giving the students an increased sense of preparedness in addressing bad news in conversation with patients and their loved ones.

Rural Health

An added benefit to teaching doctoral-prepared FNP students about how to have difficult conversations is that many of these students are preparing to work in rural settings. The University of Arizona has a Rural Health Professions Program (RHPP) available to the DNP students that helps students understand rural nursing practice, and how to intervene with rural populations (Pacheco, 2017). The current cohort of RHPP doctoral FNP students is 26 (C.

Pacheco, personal communication, May 3, 2019). Providing these students with the learning experience of communicating bad news to patients is important. PC and EOL conversations involving patients in rural American are unique in the sense that rural communities differ from more populated areas because rural residents typically have more close-knit communities and often lack access to resources, thus requiring particular awareness and appreciation for the distinctive set of strengths and challenges of this population (Rainsford, 2018)

Purpose and Aim

The purpose of this DNP project is twofold and centered on the University of Arizona's FNP specialty students in the second year of their DNP program: 1) to increase their knowledge of the FNP's role in introducing PC and EOL care; and, 2) to increase their self-efficacy in initiating difficult conversations with patients and their loved ones. The project aimed to achieve this through the use of an online learning module and video demonstration.

Key stakeholders for this training are the FNP clinical faculty, program coordinators and DNP-FNP students. This intervention will directly benefit the University of Arizona's DNP-FNP students and the patients they care for in the future.

Theoretical Framework

The purpose of this project is to increase FNP students' confidence and ability to sensitively communicate bad news to patients and their family members in a way that provides accurate and thorough care options, including PC and EOL treatments. A better understanding of how to accomplish this goal draws on the classic psychological literature, Bandura's Theory of Self-Efficacy (TSE) (Bandura, 1977). Bandura's TSE provides the theoretical framework for this project, outlining four ways a person is able to feel successful at a given task. The four sources of

personal efficacy are performance accomplishments, vicarious experience, verbal persuasion and emotional arousal (Bandura, 1977). This project will provide FNP students with a vicarious experience and include verbal persuasion in an effort to increase their self-efficacy.

Performance Accomplishments

This source of self-efficacy is based on experiences of personal mastery. The self-efficacy gained through mastery can be transferable to other similar activities (Bandura, 1977). Personal mastery is a particularly important source in this project because it draws on other areas of patient communication mastered by the FNP students. For example, an FNP student who has worked in an acute care setting where a patient was preparing to go to a hospice setting would already have experience in discussing EOL topics. Although not all students in this program have worked in a setting where difficult conversations take place, all students at this point in their program have participated in over 180 hours of clinical rotations with the potential for initiating difficult conversations.

Vicarious Experience

This source of self-efficacy is based on watching others perform activities, influencing the observer to persuade themselves that if others can do it, they can as well (Bandura, 1977). This project includes a video demonstration of a difficult conversation being initiated and completed, featuring an FNP with expertise in PC. Having students watch a demonstration of EOL and PC conversations conducted by an expert will generate the students' expectations that they, too, will improve their EOL and PC communication skills if they follow the recommendations given in this project.

Verbal Persuasion

Verbal persuasion is when people are led, using verbal suggestion, into believing they have the ability to successfully cope with situations that have overwhelmed them in the past (Bandura, 1977). Furthermore, people who are verbally persuaded that they are capable of mastering challenging situations and are provided with performance aids to accomplish the task at hand are likely to mobilize greater effort than those who receive only the performance aids (Bandura, 1977). This project's module will also include a brief written component for students to read, which will both provide guidance and verbal persuasion to increase students' self-efficacy.

Emotional Arousal

Emotional arousal comes from encountering stressful situations. High arousal and anxiety are usually debilitating to performance, so exposing a person to the situation prior to the actual event can desensitize them and reduce their anxiety levels (Bandura, 1977). FNP students have likely never been in a clinical situation where they were the ones delivering bad news to a patient or their family member. Preparing them with written materials about PC and EOL care, and a video demonstration of this conversation will likely reduce their anticipated anxiety and increase their self-efficacy.

Proposed Effects and Benefits of Training

There are two proposed benefits of this training. The first is to increase knowledge of the FNP's role in initiating a difficult conversation. The second goal is to increase students' self-efficacy in sensitively and effectively initiating a difficult conversation involving PC and EOL care.

Project Questions

1. Does this online module with video demonstration increase their knowledge of the FNPs role in initiating a difficult conversation?
2. Does this online module with video demonstration increase students' self-efficacy in sensitively and effectively initiating a difficult conversation?

LITERATURE REVIEW

Synthesis of Evidence

A review of literature was conducted consisting of articles from the past five years utilizing CINAHL, PubMed with MeSH, Cochrane databases. This search focused on articles containing search terms and MeSH categories as follows: “end of life OR hospice care OR palliative care,” “communication or interviews as topic,” “self-efficacy,” “healthcare providers OR family nurse practitioners,” and “video-audio media.” This search yielded no articles, so the term “video-audio media” was removed. At this point primary searches for “end of life OR hospice care OR palliative care,” “communication OR interviews as topic,” “self-efficacy,” and “healthcare providers OR family nurse practitioners” produced 16 unique articles. Other articles were included in this section that focused on video content, video test plans and educational interventions.

Training

Although PC and EOL conversations are important, PCPs are insufficiently prepared for delivering bad news to patients (Tully, 2017). EOL education helps reduce provider tendencies to aggressively treat and interact with terminal patients (Bennett, Lovan, Hager, Canonica, & Taylor, 2018). Particular frustrations include timing of EOL care discussions as well as difficult

conversations (Brooks, Manias, & Nicholson, 2017). This can be remedied by providing education, often coming in the form of an intervention. Brief interventions are successful in increasing comfort level and knowledge level of EOL topics (Tully, 2017).

Lectures

Providing PC and EOL training in the form of a lecture can be an effective form of education. Multi-session lectures are beneficial for training participants in discussing goals of care and how to deliver bad news in a hospital setting (Baer & Weinstein, 2013). In an academic setting, a brief one-hour intervention on EOL care is sufficient to yield significant results with nursing students' intention of treating an EOL patient less aggressively, regardless of the participant's experience caring for a patient or relative long-term (Bennett et al., 2018).

Workshops

PC and EOL workshops including skills demonstrations, group sessions, and role-playing exercises can be used to learn communication techniques in dealing with difficult conversations. These workshops significantly improved how well prepared the participants felt they were to communicate EOL issues with patients and their families in a variety of capacities (Arnold et al., 2015). Using multimedia in the form of a video in addition to simulation scenarios proves beneficial to teaching communication skills (Brock et al., 2015). Workshops increased participants' levels of comfort and self-efficacy in EOL communications immediately following the intervention as well as one to three months following the intervention (Arnold et al., 2015; Brock et al., 2015). This will help them confidently communicate with patients and their families about treatment options, conducting family conferences, and discouraging families from non-beneficial aggressive treatment (Arnold et al., 2015).

Videos

Online resources, such as videos have been used as a means of learning in PC and EOL care in two different methods: as an electronic learning resource (ELR) (Thompson et al., 2014) and as a way of evaluating program participants' communication performance (Brock et al., 2015). Videos can be used effectively as a means of content delivery because they can help explain difficult concepts, and help viewers feel more engaged with the educational topic (Onorato, 2018). Existing PCP courses can benefit from incorporating shared, published ELRs into their curricula. This efficiently refines or enhances the course's content material to meet the desired competencies. Many ELRs exist and are available for use, so identifying the most appropriate educational instrument can be challenging (Thompson et al., 2014), not only because it requires an assessment of content, but also of the degree of professional tone of the video (Garcia, 2018).

Results

The results of the interventions indicated that participants directly benefit from PC and EOL education. Data findings on EOL communication trainings varied by perspective: following training interventions, providers expressed a rise in self-efficacy, knowledge, and communication scores (Chung, Oczkowski, Hanvey, Mbuagbaw, & You, 2016). They also increased their comfort in discussing these topics (Arnold et al., 2015), and anticipated providing less aggressive care following the intervention (Bennett et al., 2018).

Learning doesn't always translate into improved practice or patient experience. Although those being educated experienced positive feelings, no significant effect was found among patients whose providers received training (Selman et al., 2017). However, the patients of these

PCPs exhibited no effect on training on anxiety, depression, perceived empathy and satisfaction with communication skills (Selman et al., 2017).

Conclusion

Education on PC and EOL care increases provider tendencies to treat and interact with terminal patients using less medically-aggressive treatments (Bennett et al., 2018). Although PCPs are insufficiently prepared for delivering bad news to patients, brief interventions are successful in increasing their knowledge and comfort level in difficult conversations about EOL care and PC (Tully, 2017). Lectures can be effective means of EOL and PC training (Bennett et al., 2018), as can workshops (Arnold et al., 2015). Videos can also be both educational (Onorato, 2018) and used as a way of evaluating training (Brock et al., 2015). Trainings for PCPs have yet to be prove any significant benefit to the patients (Selman et al., 2017), however, they have proven beneficial to the PCPs (Chung, Oczkowski, Hanvey, Mbuagbaw, & You, 2016; Arnold et al., 2015; Bennett et al., 2018).

Strengths and Weaknesses

The greatest strengths of the available body of literature is that it includes a variety of teaching methods and settings for PCPs to learn how to initiate difficult conversations. Some of the articles featured trainings within a hospital (Tully, 2017), lectures within schools (Bennett et al., 2018), focus groups within an ICU (Brooks et al., 2017), and workshops (Arnold et al., 2015; Brock et al., 2015). Another strength was that each of the studies listed consistently determined that PC and EOL training increases PCPs self-efficacy. The greatest weakness is that none of the studies included FNPs. The lack of studies including FNPs is a gap in the literature that this project will address.

METHODS

This section presents the project's methodology, including project design, sample and setting, intervention, and instrument. This section also includes protocols for human subjects, risks, benefits, and plans for data analysis.

Design

This was a descriptive quality improvement project that introduced an educational module. The project utilized a pretest/posttest design to examine increased knowledge of the FNP's role in communicating bad news with patients and their family members, as well as increased self-efficacy in conducting difficult conversations about PC and EOL care. A quantitative pretest and posttest questionnaire along with a demographic form was used to obtain the data. Median, mean and standard deviation were used to describe and analyze the data, allowing a comparison of the differences between the pretest and posttest answers.

Sample and Setting

The sample consisted of FNP students in the second year of the University of Arizona's Doctorate of Nursing Practice (DNP) program. The DNP program is a hybrid program of online delivery of didactic content coupled with annual intensive on-campus experiences and site-based clinical rotations (UA-CON, 2018). The project is included as part of one of the core required FNP clinical management classes. The course in which this project was implemented is an online course entitled *Advanced Primary Care* (NURS 620B). Students were not limited to geographic region. All students in the sample must hold a current nursing license, have been a nurse for at least a year, and have at least a bachelor's degree in nursing.

The sample size was projected to be a minimum of 15 participants from the sixth semester in the seven-semester FNP program, however only 12 pretests and 11 posttests were completed. One of the surveys had missing data as it was an incomplete posttest, which was discarded as the participant started the posttest and answered approximately the first half of the questions. Each of the completed posttests had a corresponding timestamp for the pretest, so this incomplete survey was not included in the statistical analysis.

Intervention

This module consisted of brief reading materials about palliative care and an approximately six-minute video demonstration about how to initiate a difficult conversation. The module was included in one week (of the eight weeks of the course) in which the students had covered self-management of chronic illness. The course faculty determined that this would be the most appropriate week to include this content on having difficult conversations with patients about palliative care and transitions to hospice care (R. Gregg, personal communication, April 21, 2019). The project was announced to the students twice in an email and once in the announcements section of the online learning management system website for the course, called Brightspace (formerly Desire2Learn [D2L]) (Appendix F). This material was offered as supplemental coursework presented through the course website via a link to a Word document to address definitions, concepts and best practices as well as a Vimeo link with password for the video demonstration. Students were not required to complete the educational module, nor were they required to complete the surveys. Participation was completely voluntary. No extra credit was offered. The only incentive was the opportunity for increased knowledge.

The reading material contained background on PC and hospice, including common chronic illnesses that can lead to using these treatments. It also described the decreased quality of life associated with hospitalizations. Lastly, it detailed the role the FNP plays in caring for the patient to effectively initiate conversations that lead to the patient actualizing their end of life goals (Appendix A). The reading material was reviewed by a palliative care content expert and CON faculty member who holds advanced certification as an Advanced Practice Certified Hospice and Palliative Care nurse (ACHPN) from the Hospice and Palliative Nurses Association (HPNA).

The video consisted of information about the benefits of PC and EOL care, emphasizing the importance of initiating the topics of PC and EOL care when breaking bad news in difficult conversations with patients and their family members. A demonstration was performed using a scenario of an FNP home visit with a patient and the patient's daughter. The patient had a progressive illness, and over the course of three home visits, the FNP was able to evaluate the patient's readiness for hospice, explain the role hospice, and agree to refer the patient for hospice services. The role of the provider performed by a University of Arizona College of Nursing (UA-CON) faculty member who specializes in PC and EOL care and holds the ACHPN certification from the HPNA (Appendix B).

Survey Tool

The survey tool consisted of a voluntary pretest and posttest self-assessment survey (SAS) adapted by this author from a validated survey tool developed by Brock (2015). The original survey by Brock was designed to measure knowledge and self-efficacy of physician fellows who participated in a palliative care fellowship program at Stanford University (Brock,

2015). The adapted survey was delivered via the Research Electronic Data Capture (RedCap) online program (Appendix B). Questions measuring PC and EOL knowledge such as “Palliative care means giving up” were selected from Brock’s survey to evaluate FNP students’ understanding of PC and EOL care. Questions focusing on self-efficacy in PC and EOL conversations were selected to determine the comfort level FNP students had discussing these difficult topics. Other questions were added to evaluate the usefulness and applicability of the video.

The survey design used a five-point Likert-type scale and contained 12 questions addressing the issues of self-assessment of palliative care knowledge, knowledge of the FNP role in delivering palliative care, and the role of the FNP in initiating difficult conversations. Their answers to the statements were self-rated from “completely disagree” to “completely agree.” Their responses were related to the level of knowledge and self-efficacy gathered from the presentation. The questionnaire also included questions relating to prior experience with, or education in, PC and EOL care. Demographic questions regarding the participants’ age, education level and years of experience as a nurse were included as well. The pretest and posttest questionnaires were identical except the posttest included two additional questions about the video itself that were not applicable for the pretest. Both pretest and posttest questionnaires were developed and distributed using RedCap software, a program for designing secure clinical databases. A link to both the pretest and posttest were posted on the course website in the Brightspace online learning management system. The posttest was available immediately after the students completed the intervention. The pretest, intervention and posttest were available for

the students to take anytime within a four-week window, with a reminder announcement sent four days after implementation.

Human Subjects Considerations

As with all projects, this comes with risks and benefits to the participants. Informed consent was obtained from all project participants before initiating the pretest.

Informed Consent

This project involves human beings, so it was reviewed by the University of Arizona's Institutional Review Board (IRB), and approval was obtained. The IRB determined that this project is a quality improvement project whose results are not generalizable. As such, it was deemed exempt from full review (Appendix D). The expectations, risks and benefits were explained in a written disclosure form to participants in this project. This project gives privacy to the student participants by making their responses anonymous (Appendix E).

Expectations

The expectations for this project include that the participant first complete a pretest, then read the module and watch the video as a supplemental part of their class, then answer the posttest survey. It was expected that participants would answer all questions honestly and completely. Additionally, if the participants had any questions, they were instructed to contact the principal investigator for clarification (Appendix F).

Risks

Although there were no foreseeable physical risks, potential risks include boredom, psychological or emotional distress, and loss of time (Polit & Beck, 2012). The duration of the video and survey took no longer than 10-15 minutes, so loss of time and potential boredom were

minimized. Feelings of discomfort with difficult conversations are common particularly if the participants are untrained in presenting bad news (Visser et al., 2014). Participants may also be uncomfortable if they themselves have experienced the death of a loved one, in which case the video may remind them of that emotional experience. However, exposure to the video as a vicarious experience is intended to minimize future psychological and emotional distress by providing an increased sense of self-efficacy when faced with a real-life situation (Bandura, 1977).

Benefits

Benefits included in this project were learning about the benefits of PC and EOL care and the vicarious experience of having an expert demonstrate initiating and conducting a difficult conversation. Participants also learned specific information that they can feel empowered to provide to their future patients and family members about the nature of the Medicare hospice benefit, what kinds of services are available, and how to obtain services. Furthermore, the students' exposure to difficult conversations in the video will decrease their emotional arousal and improve their self-efficacy in breaking bad news to their future patients.

Data Analysis

At the completion of the intervention period, all pretest and posttest data were described and compared by calculating mean, median, min/max, and standard deviation. Data were reviewed to see which demographics were the greatest predictors of pretest answers. Simple percentages were also used to provide a descriptive overview of the collected data. The survey was disbursed and collected using the RedCap online survey program.

RESULTS

Eleven students (n=11) of the 37 students in the *Advanced Primary Care* (NURS 620B) course (30% response rate) completed the pretest, watched the video demonstration and read the educational module, then followed up with a posttest. All participants were doctor of nursing practice (DNP) students, family nurse practitioner (FNP) specialty, at the University of Arizona (UA) who met the inclusion criteria for this educational project. The purpose of the project was announced to the potential participants, and they were made aware that participation in the project was voluntary through the course announcement (Appendix F) and disclosure document (Appendix E).

Demographics

All participants were between 20-50 years of age, with the majority aged 20-30 (Figure 1). The range of their experience working as a nurse was between 1-15 years, with the majority working five years or less (Figure 2). All students had a Bachelor's degree, and none had Master's or Doctorate degree. In the pretest, two of the participants reported having training in PC, yet in the posttest only one did. All but one of the participants reported spending all of their time as a nurse working in direct patient care, and that participant had spent 75-100%. When answering the question about extent of experience working with PC and EOL care, 63.6% reported at least "a little" experience and none reported "a great deal" (Figure 3).

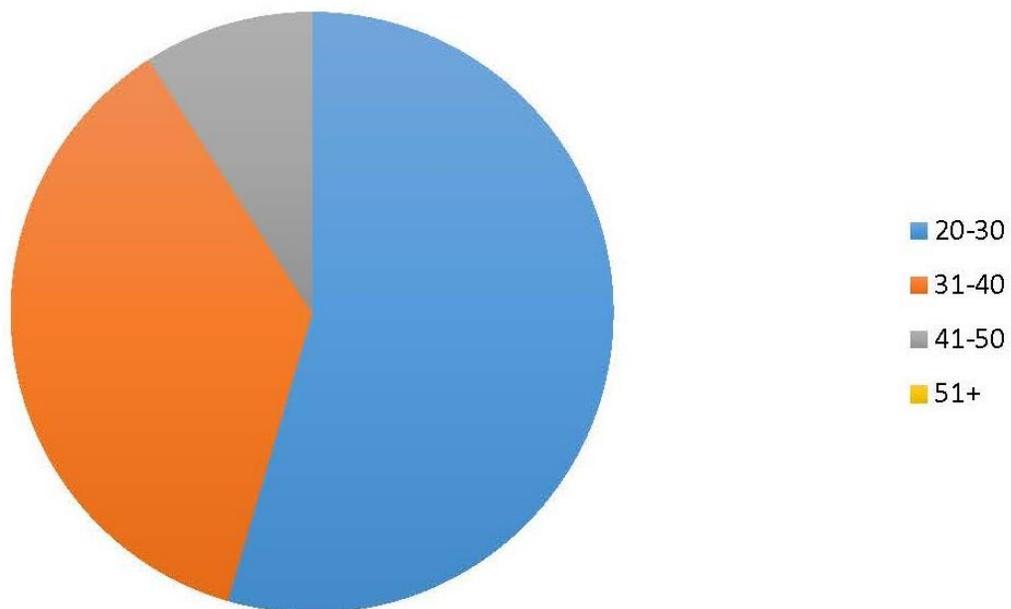


FIGURE 1. Age of participants.

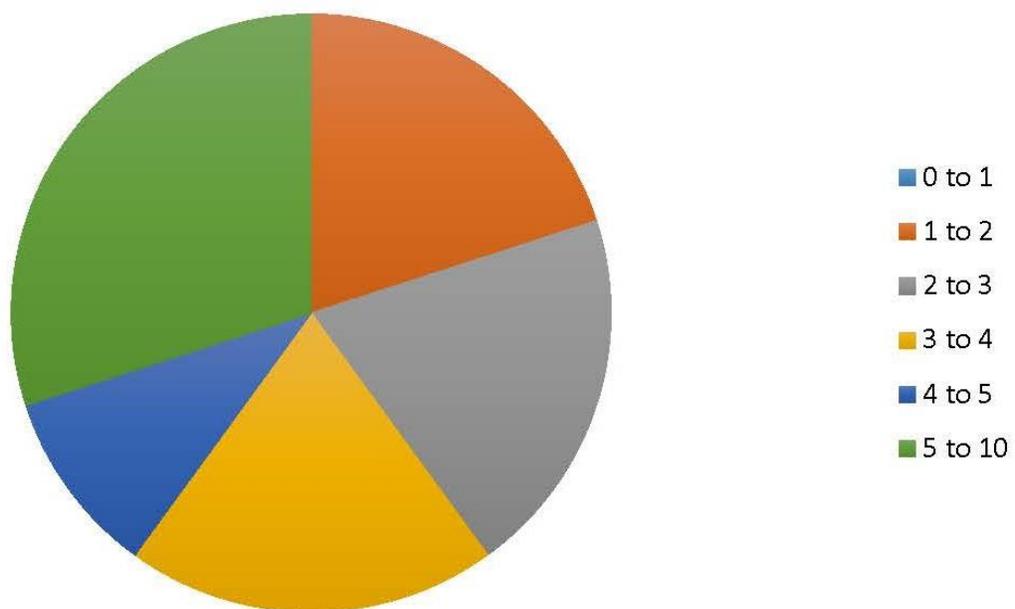


FIGURE 2. Years practicing as a nurse.

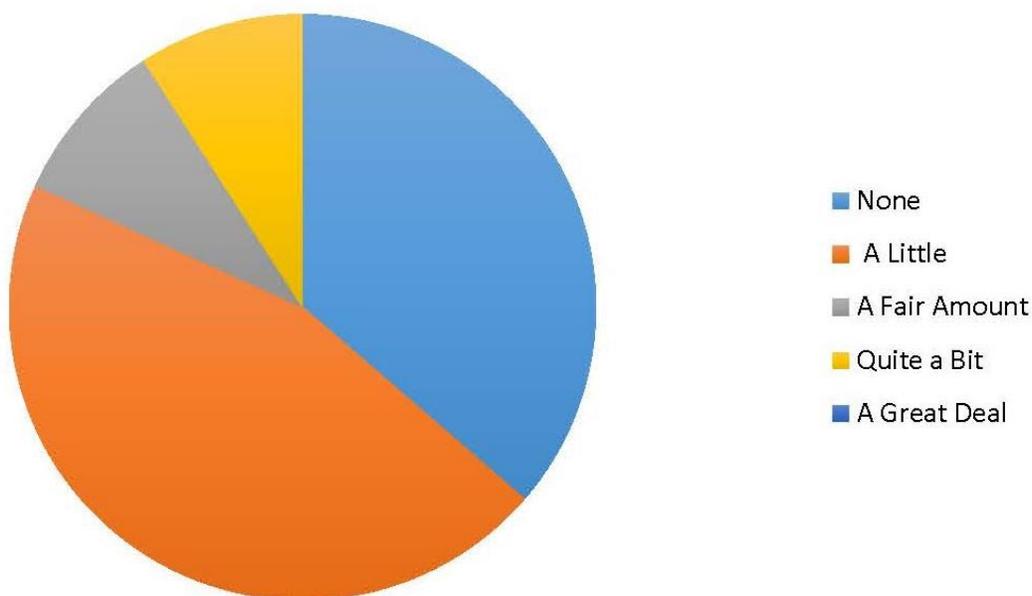


FIGURE 3. PC and EOL care experience.

Knowledge

A major improvement in knowledge was obtained in nearly all questions following the intervention (Table 1). The only area where there was no difference in scores was when knowledge of effective communication techniques was assessed. The question “*FNPs should ask their patients what they already know about PC and EOL care, then tell them more, then ask again what questions the patients have*” had a mean score difference between the pretest and posttest of 0.36, and the median in both tests was ‘5.’ The question, “*Effective communication includes listening, silence, presence, and therapeutic use of self to facilitate a patient and family-centered process*” revealed that 100% (n=11) were aware of therapeutic communication techniques in both tests. The strongest pretest indicator of knowledge was experience with PC and EOL care, as the participants with no experience incorrectly answered nearly all of the knowledge questions.

There were incorrect answers given by participants on all questions in the pretest except the question involving awareness of therapeutic techniques. Pretest results showed that 36.6% (n=4, mdn = 2, mean = 2.54, SD = 1.23) of participants believed that PC was only for cancer, 54.5% (n=6, mdn = 4, mean = 3.54, SD = 0.89) agreed that PC should be limited to palliative care specialists, 63.6% (n = 7, mdn = 4, mean = 1.28, SD = 3.27) agreed that palliative care meant giving up, 54.5% (n = 6, mdn = 4, mean = 3.18, SD = 1.40) agreed that hospice is only provided in a hospice facility, and 36.5% (n=4, mdn = 3, mean = 3.36, SD = 0.98) believed that FNPs have a direct role in initiating difficult conversations about PC and EOL care. The highest scores involved knowledge of communication, with 100% (n=11) of participants aware of therapeutic communication techniques, and 91% (n=10) agreed that FNPs should assess their patients' knowledge level of PC and EOL care.

Posttest results varied from the pretests on all questions asked. The posttest indicated that none of the participants believed that PC was only for cancer, 8% (n=1, mdn = 1, mean = 1.73, SD = 1.21) believed that PC should be limited to palliative care specialists, and 100% (n=11, mdn = 5, mean = 5, SD = 0) believed that FNPs have a direct role in initiating difficult conversations about PC and EOL care. When knowledge of communication was assessed, 100% (n=11, mdn = 5, mean = 5, SD = 0) agreed that FNPs should assess their patients' knowledge level of PC and EOL care, and there was no change in that 100% (n=11, mdn = 5, mean = 5, SD = 0) of participants were aware of therapeutic communication techniques.

Out of the six questions in this section where there were differences in the pretest and posttest results, five of the questions had the standard deviation reduced. The greatest reduction in standard deviation was with the question "*Palliative care means giving up,*" where the

standard deviation decreased from 3.27 to 1.18, indicating that following the intervention the participants were more in agreement about the meaning of palliative care. The one question where standard deviation increased was on the question, “*Palliative should only be provided by palliative care specialists,*” where it increased from 0.89 to 1.16 due to one participant’s pretest answer of “somewhat agree” increasing to “strongly agree” in the posttest.

TABLE 1. *Knowledge questions pretest and posttest data analysis.*

Knowledge Questions		Median	Mean	Standard Deviation (SD)	Min	Max
<i>Palliative care is not relevant for patients without a cancer diagnosis</i>						
	Pretest	2	2.54	1.23	1	4
	Posttest	1	1	0	1	1
<i>Palliative care means giving up</i>						
	Pretest	4	1.28	3.27	1	5
	Posttest	1	0.15	1.18	1	2
<i>Hospice care is provided only in a hospice facility</i>						
	Pretest	4	3.18	1.40	1	5
	Posttest	1	1	0	1	1
<i>Palliative should only be provided by palliative care specialists</i>						
	Pretest	4	3.54	0.89	2	5
	Posttest	1	1.54	1.16	1	5
<i>FNPs have a direct role in initiating difficult conversations such as explaining a poor prognosis or transitioning to hospice care</i>						
	Pretest	3	3.36	0.98	2	5
	Posttest	5	4.82	0.38	4	5

(1=Strongly disagree, 2=Somewhat disagree, 3=Neutral, 4=Somewhat agree, 5=Strongly agree; *Answers were the same in the pretest and posttest.)

TABLE 1 – *Continued*

Knowledge Questions		Median	Mean	Standard Deviation (SD)	Min	Max
<i>FNPs should ask their patients what they already know about PC and EOL care, then tell them more, then ask again what questions the patients have.</i>	Pretest	5	4.64	0.64	3	5
	Posttest	5	5	0	5	5
<i>Effective communication includes listening, silence, presence, and therapeutic use of self to facilitate a patient and family- centered process</i>	Pretest	5	5	0	5	5
	Posttest	5	5	0	5	5

(1=Strongly disagree, 2=Somewhat disagree, 3=Neutral, 4=Somewhat agree, 5=Strongly agree; *Answers were the same in the pretest and posttest.)

Self-Efficacy

Out of the 11 pretests, only one (9%) answer “very comfortable,” was given in the self-efficacy section, and that was to the question “*I feel _____ recommending hospice care to a patient.*” None of the participants felt comfortable initiating a conversation prior to the intervention. Eight answers (73%) were given as “somewhat comfortable” and those were all given by three of the four nurses having over five years of experience. More years of experience as a nurse correlated with higher scores on self-efficacy.

Analysis was conducted in all areas regarding how the participants felt before and after the intervention (Table 2). The greatest improvement was found in the question “*I feel _____ recommending hospice care to a patient.*” Although this was the only question in the pretest’s self-efficacy section to receive a score of ‘5’ on the pretest, the overall pretest scores

were still exceptionally low (mdn=2, mean=1.11). Following the intervention, the participants' scores increased (mdn=4, mean=4.09), and the standard deviation decreased (1.82 vs. 0.67).

Two questions showed an increase in standard deviation from the pretest to the posttest (0.50 vs. 0.57). The two questions were nearly identical, "*I feel _____ initiating end of life discussions*" and "*I feel comfortable initiating a discussion about PC and EOL care.*" The participants' posttest answers were identical on these questions. On the pretest, the questions' maximum score (max=2) was the minimum on the posttest (min=2). In fact, in the posttest all participants scored '4' on these questions except one, who scored '2' on both questions. This increase in standard deviation can be attributed to the one outlier.

The results suggest the intervention helped participants feel more comfortable having difficult conversations with their patients. In the pretest, all of the participants indicated their discomfort with initiating a conversation about EOL, or PC and EOL with their patients. In the posttest, only one participant (9%) indicated they were uncomfortable initiating EOL discussions, or PC and EOL care, and it was the same participant who answered "somewhat uncomfortable" to both questions. In the pretest, 73% of participants felt uncomfortable even participating in EOL discussions, whereas in the posttest none did. Prior to the intervention only one participant (9%) felt comfortable explaining to a family what PC and EOL care are, discussing options for EOL care, or recommending hospice care to a patient. Also, 27% (n=3) felt comfortable dealing with patients' emotional responses. These numbers contrast starkly with the posttest data, where 91% (n=10) of the participants felt comfortable initiating EOL discussions, participating in EOL discussion, explaining to a family what PC and EOL care are, discussing options for EOL care and dealing with their patient's emotional responses, and

initiating a discussion about PC and EOL care. Furthermore, 82% (n=9) participants felt comfortable recommending hospice care to a patient.

TABLE 2. *Self-efficacy questions pretest and posttest data analysis.*

Self-Efficacy Questions		Median	Mean	Standard Deviation (SD)	Min	Max
<i>I feel _____ initiating end of life discussions.</i>	Pretest	1	1.45	0.50	1	2
	Posttest	4	3.81	0.57	2	4
<i>I feel _____ participating in end of life discussions.</i>	Pretest	2	2.36	1.07	1	4
	Posttest	4	4.54	0.65	3	5
<i>I feel _____ explaining to a family what PC and EOL care are.</i>	Pretest	2	2	0.95	1	4
	Posttest	4	3.91	0.29	3	4
<i>I feel _____ discussing options for end-of-life care.</i>	Pretest	2	1.82	0.83	1	4
	Posttest	4	3.91	0.29	3	4
<i>I feel _____ recommending hospice care to a patient.</i>	Pretest	2	1.11	1.82	1	5
	Posttest	4	4.09	0.67	3	5

(1=Very uncomfortable, 2=Somewhat uncomfortable, 3=Neutral 4=Somewhat comfortable, 5=Very comfortable)

TABLE 2 – *Continued*

Knowledge Questions		Median	Mean	Standard Deviation (SD)	Min	Max
<i>I feel _____ dealing with my patient's emotional responses.</i>	Pretest	2	2.27	1.21	1	4
	Posttest	4	4.27	0.86	2	5
<i>I feel comfortable initiating a discussion about PC and EOL care.</i>	Pretest	2	0.50	1.54	1	2
	Posttest	4	0.57	3.82	2	4
<i>I have already initiated difficult discussions involving PC or EOL care with my patients and/or their families.</i>	Pretest	2	2.09	1.24	1	4
	Posttest	1	1.82	1.19	1	5

(1=Very uncomfortable, 2=Somewhat uncomfortable, 3=Neutral 4=Somewhat comfortable, 5=Very comfortable)

Usefulness

The posttest included two additional questions asking participants about the perceived usefulness of the information in this intervention, and about the likelihood of encountering a situation similar to the video demonstration. The answers indicate that all participants found the information useful (mdn=5, mean=4.91, sd=0.29), and 92% felt it was similar to upcoming situations in their future practice (mdn=5, mean=4.45, sd=0.66).

TABLE 3. *Usefulness questions pretest and posttest data analysis.*

Usefulness Questions	Median	Mean	Standard Deviation (SD)	Min	Max
<i>*The video simulation was similar to a situation I am likely to encounter with a patient.</i>	5	4.45	0.66	3	5
<i>*I will use the information learned in my clinical practice.</i>	5	4.91	0.29	4	5

Discrepancies

Two discrepancies were noted in the answers to these questions. The first, which was previously mentioned, two of the participants reported in the pretest that they had prior training in PC, yet in the posttest only one did. The second was found in the question “*I have already initiated difficult discussions involving PC or EOL care with my patients and/or their families.*” Expectations are that the answers would be identical before and after a 10 to 15-minute intervention, yet they are not.

DISCUSSION

This project was created to help FNP students learn more about PC and EOL care, and help them increase their self-efficacy in initiating difficult conversations. Two forms of education were provided: a written informational document and a video demonstration. Comparison between the pretest and posttest results shows sizable increases in knowledge and self-efficacy among the student respondents as a result of PC and EOL education, indicating that the two modes used were successful in this educational project. The benefits of increased self-efficacy in this project about PC and EOL care among FNP student respondents were similar to a study among medical students, where improvement was evident (Billings et al., 2010).

The pretest results confirmed that FNP student respondents lacked general knowledge about PC and EOL care and feel extremely uncomfortable with conversations about these topics, similar to prior research done on physicians (Brickner et al., 2004). Although the topic may be covered at a later time in the course (R. Gregg, personal communication, August 2, 2019), this is concerning, as many of the FNP student respondents anticipate encountering situations where they will need to communicate knowledge of PC and EOL care to their seriously ill patients and family members. Furthermore, enduring such high discomfort levels is unnecessary, as only a minimal amount of training notably improves both knowledge and their comfort levels (Tully, 2017). Feeling comfortable communicating with patients and thoroughly presenting these options to their patients and the patients' family members in a sensitive, knowledgeable manner will likely improve their ability to be well-rounded clinicians.

This quality improvement project demonstrated that following a brief educational intervention FNP student respondents in the DNP program at the UA gained a greater knowledge of PC and EOL care. When demographics were considered, age and years of nursing experience were much less of a predictor of pretest knowledge than additional training. Although it may seem that increased age may have exposed participants to more experiences involving PC or EOL care, age did not seem to correlate to increased knowledge regarding PC and EOL care. Also, it shows that the participants retained information they learned in their training. This increased knowledge underscores the importance of having additional training in educational programs, whether in a degree program or additional training in a clinical setting.

This project also revealed that among these participants the greatest predictor of pretest self-efficacy is years' experience as a nurse. Nursing involves a great deal of communication

with patients, and the results of all participants scoring high in pretest knowledge of therapeutic communication demonstrates that they are aware of various communication skills. As all of the participants had spent at least 75% of their time as a nurse working in direct patient care, increased self-efficacy in communication would likely develop over time spent in this profession.

Knowledge about PC and EOL care is important for FNP students to learn so they can understand what it is, who it applies to, and which actions are appropriate for this population. Although the UA's DNP-FNP program already has a tremendous amount of information included, there is minimal content on palliative and end of life care. This is consistent with descriptions of comparable programs described in the literature (Jensen-Seaman & Hebert, 2016; Paice et al., 2006). Additionally, self-efficacy in communicating with patients about PC and EOL care is something that could be included in the curriculum to improve the chances that these conversations will take place, and that the FNP will be comfortable doing so. This project suggests that both knowledge and comfort in breaking bad news could be improved with merely 10-15 minutes of additional training. This brief intervention resulted in notable improvements on the posttest on nearly all questions. Furthermore, nearly all questions had a smaller standard deviation, indicating more consensus and consistency among participants, suggesting they learned what was expected from the intervention.

The theoretical framework of Bandura's Self-Efficacy Model (1977) was reflected in the results of the self-assessment section of the tests. The students who participated all indicated in their pretest that they felt uncomfortable with communicating with patients about PC and EOL care. In fact, the median answer was "very uncomfortable" on all seven questions regarding how

they felt communicating with patients about this topic. After participating in the intervention, respondents reported an increase in comfort levels on all seven questions. As mentioned above, all of the questions involving comfort level about performing tasks involving communication of PC and EOL care had major increases in self-efficacy following the intervention. These results illustrated the positive impact that a demonstration video had on increasing comfort levels among FNP students using the method of vicarious experience.

Implication for Practice

It was crucial that FNP students receive training and education about PC and EOL care, as well as how to break the news to patients by initiating difficult conversations. Data from this project indicated that providing this education increased participants' knowledge about PC and EOL care, and increased their self-efficacy regarding conversations with patients about these difficult topics.

Limitations

This project had several limitations. The sample size was small and exposed this project to marked bias due to the limited number of participants. The small sample size may have been due to the rigorousness of the FNP program. The FNP program places many tasks and tests on the students during the semester this was administered. The week this information was presented in the course was also a week where students participated in an objective structured clinical examination (OSCE), which may have caused stress and time limitations to the extent that it decreased the number of participants. Additionally, certain measures reflecting the relationship between certain demographics and knowledge or self-assessment could not be performed due to small sample size.

Another limitation was that participants were limited to FNP students. There are several other types of nurse practitioner students obtaining their education at the UA, and replicating this project with other types of nurse practitioner students may reveal differences in knowledge and self-efficacy.

Also, the sample may have included selection bias, resulting in skewed data due to capturing a disproportionate number of students who are less knowledgeable and less comfortable communicating about PC and EOL care than their peers. These participants may have felt inadequately prepared in this topic prior to this project, so they may have had more of an interest to learn and participate. Another possible source of selection bias is that participants may have been the students with a particular interest in learning about PC and EOL care, or those who are most aware of the importance this topic will likely have in their future careers.

Future Directions

The results of this quality improvement project are well known to the two UA-CON faculty who teach PC courses, and also to one of the faculty who leads core FNP classes that include PC and EOL care. These three faculty members were on this project's committee. One of the faculty members hopes to utilize the video in the palliative care courses at the UA-CON as well as make the video available for the adult-gerontology acute care nurse practitioner (AGACNP) students.

Also, this project has been submitted to ProQuest through the UA, making this information readily available to other clinicians and instructors as an example of a site-specific quality improvement project. Although the results of this project are not necessarily generalizable to other sites, faculty may find the experience gained from this quality

improvement project to be illustrative of one way in which PC and EOL care training can be integrated into their courses.

The students who participated in this project all found the video demonstration useful and anticipated encountering a similar scenario in their future careers. This project was conducted near the end of their FNP education, after the bulk of their clinical preceptorship hours had been completed. One suggestion for future PC and EOL care education within this program is to teach this topic earlier, prior to beginning clinical rotations. This would give students earlier exposure to potential situations they may encounter, possibly even within their clinical rotations.

Further projects could aim to improve the quality of PCP's knowledge of PC and EOL care among PCPs who are currently practicing. Also, future projects could measure the self-efficacy in PCPs regarding initiating difficult conversations about PC and EOL care. In addition, the effects of implementing PC and EOL education with a variety of healthcare populations could also be assessed and improved where needed.

The written module with video demonstration that was developed for this project could be adapted and provided to practicing FNPs and physicians at their own sites, as both this project and the literature suggest that there is a dearth of training opportunities during physician and nurse practitioner education programs (Dickinson, 2011; Head et al., 2016; Paice et al., 2006; Jensen-Seaman & Hebert, 2016; Ferrell BR, Virani, Grant, & Juarez, 2000). They would likely benefit from a demonstration on how to appropriately initiate and participate in a conversation involving PC and EOL care (Brickner et al., 2004; Visser et al., 2014). This project could also be replicated with FNP students who are in masters' level and certificate programs, as well as among other branches of nurse practitioners, particularly adult gerontology acute care nurse

practitioner (AGACNP) students who will also have a high likelihood of encountering these situations in their practice.

Conclusions

As hospice enrollment continues to rise (National Hospice and Palliative Care Organization, 2016), healthcare providers will be increasingly called-upon to facilitate decision-making regarding PC and EOL care by initiating conversations and answering questions knowledgably. The acquisition of this skill should be fostered in a manner that encourages providers to communicate in a timely manner to maximize the benefits of treatment. Current healthcare education systems suffer from limited space in their curricula to provide sufficient content regarding PC and EOL care, including the UA's DNP-FNP program. This lack of educational opportunity to learn PC and EOL care produces providers who may lack appropriate communication skills, resulting in them feeling uncomfortable initiating and engaging in these conversations. This discomfort is a barrier for proper communication, resulting in an unpleasant experience for the provider, the patient, and the patient's family members. It also can result in delayed PC and EOL treatment, creating a less than ideal experience for patients (Freund et al., 2012; Walsh-Childers & Braddock, 2014). The current median length of stay in hospice is 17 days (Medpac, 2016), suggesting that earlier conversations are not being carried out at all, or not carried out effectively. Increasing knowledge and exposure to PC and EOL care conversations improved self-efficacy in this quality improvement project as it did in medical schools (Billings et al., 2010).

The UA's DNP-FNP students were provided with an educational module and video demonstration, giving the students the opportunity to learn about PC and EOL care. For the

students who participated, this module notably increased their general knowledge of PC and hospice, the FNP's role in initiating difficult discussions on this topic, and communication skills that are useful in initiating these conversations with patients who could benefit from PC and EOL care. Additionally, the module and video notably increased participants' self-efficacy in all tested aspects regarding feeling comfortable communicating this topic with patients. The results of this quality improvement project will promote further use of implementing PC and EOL education in the UA's DNP-FNP programs, as well as help the participating students in their future practice as they encounter patients who will benefit from PC and EOL care.

APPENDIX A:
ONLINE MODULE

End-of-Life Care and Difficult Conversations in the Context of Chronic Illness

Background:

For most non-healthcare professionals, the terms “palliative care” and “hospice” are commonly associated with cancer. However, more people in the United States die from long-term chronic diseases such as heart failure, COPD, and renal disease than die from cancer. The progression of these diseases is characterized by a gradual worsening of symptoms over time, accompanied by declines in physical functioning. Commonly, patients will experience frequent exacerbations of symptoms requiring hospitalization. Over time, hospitalizations occur more frequently, followed by stints in skilled nursing facilities for rehabilitation before returning home. Hospital-acquired infections such as c-diff and pneumonia often complicate and prolong recovery. Quality of life can become diminished as patients spend more time in the hospital than at home. Most people express a desire to die peacefully at home, but more often than not, people with chronic disease will die in the hospital.

Family Nurse Practitioners (FNPs), especially those with long-term relationships with their patients, play an important role in helping patients and families understand their disease trajectory and poor prognosis. FNPs are managing symptoms and monitoring their patients’ functional decline over time. FNPs recognize changes in their patients that may signify the approaching end-of-life. Without realizing it, FNPs are already practicing a type of palliative care by providing nonpharmacologic and pharmacologic methods for symptom management. But palliative care is more than symptom management – it also addresses the patient’s goals and quality of life. In order to truly help patients understand and prepare for the progression of their disease, FNPs must engage patients in a conversation about palliative care and hospice.

This module provides information about palliative care and hospice care, the FNP role in supporting patients with chronic disease, and best practices for initiating and conducting difficult conversations with patients about end-of-life planning.

Content Outline:

1. Chronic illnesses and the progression to end-of-life care
2. Definitions of palliative care and hospice
3. FNP role in palliative care and decision-making for end of life care
4. Best practices for having difficult conversations with patients and families
5. Resources for palliative care and hospice care

Content Delivery:

1. Panopto presentation with PowerPoint to cover definitions, concepts, and best practices.
Video demonstration of an FNP making a home visit with a patient who was just discharged from the hospital after a heart failure exacerbation. The healthcare provider demonstrates picking up on cues from the patient that open the door for a conversation about end-of-life care.

APPENDIX B:
VIDEO LINK AND SCRIPT

Link to Video: <https://vimeo.com/336878177>

Password for video: Hospice

Cast of characters:

FNP: Dr. Carlisle

Patient: Terri

Daughter: Melanie

List of supplies:

Stethoscope

TTime	Audio- What is being said	Visual- What is happening
	<p>T: Is my heart still beating, doc? DC: It's still working, Terri. T: Good, I am a little short of breath, but not doing too badly. I sure was glad to get out of that hospital. I thought they'd never let me go home! DC: What was the hardest thing about being in the hospital? T: Everything, the noise, the blood tests, and the food... it was awful! Those hospital beds are like slabs of stone! The good Lord knows I'm going to be sleeping on one of them soon enough.</p>	<p>DC is sitting next to E on the sofa; T sits nearby</p> <p>The camera starts wide and then zooms in on DC and E (spotlight on them).</p>
	<p>M: Oh mom, I don't want you talking like that. You've got lots of good years left! DC: Do you know how many times you've been in the hospital over the past year? T: Oh let's see, this last time was the 4th or 5th time, I guess. M: No, it hasn't been that many, mom. DC: Actually, yes, this last admission was the 6th one in the last year. And this one was a long one – 3 weeks. T: It seems like I spend more time there than I do at home. Every time I go, they end up keeping me longer. DC: Terri, what is your understanding of why they kept you so long this time? T: Well, they told me that the medications aren't really working anymore. It took a long time to get me well enough so that I could come home. DC: I know we've talked before about heart failure, and that we can't cure it. We focus on managing your symptoms with medications. How do you think you are doing? T: I have no energy. I just feel worn out M: It's true that <i>mom seems to be struggling more with breathing, walking and eating.</i></p>	<p>Camera zooms out</p>

	<p>DC: Yes, as time goes on, your heart is getting worse, and the medications don't help as much. Unfortunately, you aren't going to get any better.</p> <p>T: How much time do you think I have?</p> <p>DC: It's hard to say. You're not a statistic Terri. But I'd say we're looking at months rather than years.</p> <p>T: I don't think I want to go back to the hospital again. I don't want to spend my time that way.</p> <p>End Scene 1</p>	Camera zooms in
	<p>Start Scene 2</p> <p>DC: Hi Terri, it's been a few days since our last visit. Have you thought about what you would like for your future?</p> <p>T: I don't want to be a burden to my family, but I know I can't manage on my own. I would like to be comfortable. I would like to enjoy being with my grandchildren for whatever time I have left.</p> <p>M: I know mom would like to be at home, and I could be here with her. She could never be a burden to us.</p> <p>DC: I think there's a way we can avoid future hospitalizations. We can manage your care right here at home with home hospice. Have you heard of hospice before?</p>	Camera switches to T and DC
	<p>T: I have heard of it. It's kind of frightening in a way.</p> <p>DC: What scares you about hospice?</p> <p>T: Well it means you are going to die.</p> <p>M: It makes me think of cancer. My husband's father went to a hospice when he had lung cancer. He died there a few weeks later.</p> <p>DC: Yes, people often associate hospice with cancer, and sometimes people think hospice is a place you go. But hospice is really a type of palliative care. It's a philosophy of care that focuses on helping you live the best life that you can for the time that you have left. We've been providing you with palliative care all these years by managing your heart failure symptoms, even though we knew we couldn't cure you.</p> <p>M: So where does hospice come in?</p>	Camera zooms out
	<p>DC: Well, hospice is a team of people, helping to achieve the things you just said you wanted. To be comfortable, to be at home, to not be a burden on your family, and to have the best quality of life that you can. Your care won't actually change. You will still get all the medications you need to manage your symptoms. The only difference between palliative care and hospice is that when you get sicker, we won't have to take you to the hospital.</p> <p>T: Wow. That's lot that they offer [seems surprised, relieved, and a bit encouraged by this]</p>	Camera zooms in

	<p>DC: Well that's usually the reaction when people learn about it, and they think "why didn't somebody tell me sooner?"</p> <p>End Scene 2</p>	
	<p>Start Scene 3</p> <p>DC: Have you had a chance to think about hospice more since our last visit?</p> <p>T: Yes, but I'm concerned about the cost.</p> <p>M: Will our insurance cover this?</p> <p>DC: Hospice is a Medicare benefit that covers all of the care for people who are thought to have less than six months of life left. If your condition stabilizes, you can come off of hospice, and then go back on again later. But my goal today isn't to tell you all the details of what hospice can offer. It would be best to have someone from the local hospice program come and talk to you about their specific services. My goal today was to introduce you to this concept, and to also tell you that this is what I recommend for you at this time of your life.</p>	<p>Camera zooms out</p>
	<p>T: OK. I understand. It sounds like a good thing to look into.</p> <p>DC: I think the best thing to do now is to make an appointment. I can call them or I can give you their contact info and you can call. But I recommend that they come and see you here at home.</p> <p>T: OK. Yes. I would like to do that. Just to see what they really have to offer.</p> <p>DC: How are you feeling about this, Terri?</p> <p>T: I'm not sad, exactly. I am just feeling sorry that I've come to this part of my journey. But I think I am ready to just rest and take things as they come.</p>	<p>Camera zooms in</p>
	<p>DC: OK, after you meet with the hospice people, I could come see you again, just to see what you think, and answer any further questions. How does that sound as a plan?</p> <p>T: Yes, that sounds like a good plan.</p> <p>M: Yes, thank you Dr. Carlisle. You've given us some options to consider.</p>	<p>Camera zooms out</p>

APPENDIX C:
SELF-ASSESSMENT SURVEY

Questionnaire: Knowledge of FNP Role in Difficult Conversations					
Please answer to the best of your ability:					
	Strongly disagree	Somewhat disagree	Neutral (neither agree or disagree)	Somewhat agree	Strongly agree
	(1)	(2)	(3)	(4)	(5)
Palliative care is not relevant for patients without a cancer diagnosis					
Palliative care means giving up					
Hospice care is provided only in a hospice facility					
Palliative should only be provided by palliative care specialists					
FNPs have a direct role in initiating difficult conversations such as explaining a poor prognosis or transitioning to hospice care					
Effective communication includes listening, silence, presence, and therapeutic use of self to facilitate a patient and family-centered process					
FNPs should ask their patients what they already know about PC and EOL care, then tell them more, then ask again what questions the patients have.					

Questionnaire: Self-Assessment					
Indicate your level of comfort with the following by placing a (X) in only one box per statement.					
Please answer all questions to the best of your ability and as truthfully as possible.					
	Very uncomfortable	Somewhat uncomfortable	Neutral (neither comfortable or uncomfortable)	Somewhat comfortable	Very comfortable
	1	2	3	4	5
I feel _____ initiating end of life discussions					
I feel _____ participating in end of life discussions					
I feel _____ explaining to a family what PC and EOL care are					
I feel _____ discussing options for end-of-life care					
I feel _____ recommending hospice care to a patient					
I feel _____ dealing with my patient's emotional responses					

Please fill in the statement by placing an (X) in the box of the choice you most agree with.					
	Strongly disagree (1)	Somewhat disagree (2)	Neutral (neither agree or disagree) (3)	Somewhat agree (4)	Strongly agree (5)
I feel comfortable initiating a discussion about PC and EOL care					
*The video simulation was similar to a situation I am likely to encounter with a patient.					
*I will use the information learned in my clinical practice.					
I have already initiated difficult discussions involving PC or EOL care with my patients and/or their families.					

Which age group represents you?

- 20--30
 31-40
 41-50
 51+

What is the highest level of education you completed? (Check all that apply)
BSN

- Bachelor's degree in something other than in nursing
 MSN
 Master's degree in something other than in nursing
 Doctorate

How many years have you been a nurse?

- 0-1
 1-2
 2-3
 3-4
 4-5
 5-10
 10-15
 15+

Of those years as a nurse, how many have you worked in direct patient care?

- All
- 75-100%
- 50-75%
- 25-50%
- 0-25%

When it comes to PC and EOL care, how much experience would you say you've had?

- None
- A little
- A fair amount
- Quite a bit
- A great deal

Have you ever participated in specific training or education in Palliative care, such as that provided through the End-of-Life Education Consortium (ELNEC) or other educational provider?

- Yes
- No

*Indicates a question only asked in post-test.

APPENDIX D:
THE UNIVERSITY OF ARIZONA INSTITUTIONAL REVIEW BOARD (IRB) APPROVAL
LETTER



Human Subjects
Protection Program

1618 E. Helen St.
P.O. Box 245137
Tucson, AZ 85724-5137
Tel: (520) 626-6721
<http://rgw.arizona.edu/compliance/home>

Date: June 10, 2019
Principal Investigator: Melanie Martin

Protocol Number: 1906684373
Protocol Title: Breaking Bad News: Providing Communication Guidance to Doctorate of Nursing Practice (DNP) Students

Determination: Human Subjects Review not Required

Documents Reviewed Concurrently:

Data Collection Tools: *Self Assessment Questionnaire.docx*
HSPF Forms/Correspondence: *Advisor Confirmation Email.pdf*
HSPF Forms/Correspondence: *IRB Application 6-4.pdf*
HSPF Forms/Correspondence: *Martin DNP Project Course Chair Approval.pdf*
Informed Consent/PHI Forms: *Disclosure Form.docx*
Informed Consent/PHI Forms: *Disclosure Form.pdf*
Other: *Video Script.docx*
Participant Material: *Online Module.docx*
Recruitment Material: *Announcement to Nurs 620B Course via D2L.DOCX*

Regulatory Determinations/Comments:

- Not Research as defined by 45 CFR 46.102(1): As presented, the activities described above do not meet the definition of research cited in the regulations issued by U.S. Department of Health and Human Services which state that "Research means a systematic investigation, including research development, testing, and evaluation, designed to develop or contribute to generalizable knowledge. Activities that meet this definition constitute research for purposes of this policy, whether or not they are conducted or supported under a program that is considered research for other purposes. For example, some demonstration and service programs may include research activities. For purposes of this part, the following activities are deemed not to be research."

The project listed above does not require oversight by the University of Arizona.

If the nature of the project changes, submit a new determination form to the Human Subjects Protection Program (HSPP) for reassessment. Changes include addition of research with children, specimen collection, participant observation, prospective collection of data when the study was previously retrospective in nature, and broadening the scope or nature of the study activity. Please contact the HSPP to consult on whether the proposed changes need further review.

The University of Arizona maintains a Federalwide Assurance with the Office for Human Research Protections (FWA #00004218).

APPENDIX E:
DISCLOSURE FORM

Disclosure Form

The purpose of this DNP project is to implement and evaluate the effects of an online educational module about the FNP role in palliative care and how to have difficult conversations with patients suffering from chronic illness.

This is a DNP project being conducted by Melanie Martin a Doctor of Nursing Practice Student at the University of Arizona's College of Nursing. You are invited to participate in this project because you are an FNP student in N620b.

Your participation in this project is voluntary. You may choose not to participate. If you decide to participate in this survey, you may withdraw at any time. If you decide not to participate in this survey or if you withdraw from participating at any time, you will not be penalized.

The procedure involves viewing an online education module with a demonstration video, and completing a brief online survey that will take approximately 5 minutes. Your responses will be confidential, and no identifying information such as your name, email address or IP address will be collected. The survey questions will be about self-efficacy (or confidence) at having difficult conversations with patients about end-of-life care.

The results of this survey will be used for scholarly purposes only and will be shared with UA CON faculty representatives as part of this DNP project. Project findings may also be published in nursing journals in the future.

If you have any questions about the research project, please contact Melanie Martin at <melaniemartin@email.arizona.edu>. If you have any adverse effects or concerns about the project, please contact Dr. Heather Carlisle at <hlc@email.arizona.edu>. This project has been reviewed according to University of Arizona IRB procedures for research involving human subjects.

ELECTRONIC CONSENT: Please select your choice below.

Clicking on the "agree" button below indicates that:

- you have read the above information
- you voluntarily agree to participate
- you are at least 18 years of age

If you do not wish to participate in the project, please decline participation by clicking on the "disagree" button.

APPENDIX F:
ANNOUNCEMENT TO NURS 620B COURSE VIA D2L

Dear students:

You are invited to participate in a DNP project being conducted by Melanie Martin, a Doctorate of Nursing Practice student at the University of Arizona's College of Nursing.

The project, *Breaking Bad News: Providing Communication Guidance to Doctor of Nursing Practice Students*

The Disclosure Form provides additional information on consent, and that your participation is completely voluntary, anonymous and confidential.

Thank you.

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