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Improving Nurse Knowledge and Comfort in Advance Care Planning

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Abstract

Objectives: The purpose of this project was to increase nurses' knowledge and comfort level regarding advance care planning (ACP) in patients with a diagnosis of heart failure (HF) in a clinical setting.

Methods: A quasi-experimental design was used with a pre-and-post test administered to nurses prior to the beginning of a four-hour interactive class and immediately following the class. The data was analyzed using a 5-point Likert scale and paired t-tests were used to determine statistical significance. Statistical significance was set at 0.05.

Results: Of the eight nurses who participated in the interactive course, seven were female, one was male, and all had less than five years of clinical nursing experience. The average knowledge score was quite high for both pre- and post-tests and was 4.6 and 4.9 respectively ($p = .049$). The average confidence score was 2.8 pre-intervention and increased significantly to 4.3 at post-intervention ($p = .001$).

Conclusions: Nurses who attended a four-hour interactive class had a statistically significant increase in knowledge and comfort level regarding ACP communication with HF patients in a clinical setting. Thus, nurses can be instrumental in introducing sensitive topics such as ACP.

Keywords: heart failure, advance care planning, advance directives, nursing knowledge, nursing comfort, palliative care, patient education

Introduction

Heart failure (HF) is a chronic and progressive disease marked by high morbidity and mortality, with more than a million hospital admissions in the United States annually.¹ Nearly 50 percent of patients with HF die within five years of their initial diagnosis, with the cost of HF care exceeding 40 billion dollars annually, and more than 50 percent of those costs occurring within the last six months of life.¹ The progressive nature of the disease leads to compounding symptoms that increasingly worsen quality of life (QOL).² Patients and families often find themselves facing difficult decisions regarding management and treatment due to the unknown projection that a HF diagnosis brings.

As the rate of HF diagnosis is expected to grow substantially by 2030³, the need for advance care planning (ACP) conversations has become an essential component of HF management. Patients who understand the ACP process can transfer their goals and wishes regarding their health care into an advance directive (AD). An AD is a legal document outlining the patient's medical wishes.⁴ It is intended to guide the patient's loved ones and healthcare providers through the decision-making process in the event that the patient cannot make their wishes known, thus ensuring that the patient's goals of care are met. Despite efforts made by the Center for Medicare and Medicaid Services to increase communication regarding ACP and AD completion through clinician reimbursement, only 17% of patients reported having an ACP conversation with their provider.⁵ In some instances, over 80 percent of hospitalized HF patients did not have an AD on file (Butler, 2015).

In addition, nurses are unsure of their role in the ACP process. Many nurses feel that the ACP conversation is outside of their scope of practice, with overall lack of nurse knowledge and education regarding ACP and advance directives (ADs) acting as a barrier to nurse-led end-of-

life conversations.⁶ Although nurses may recognize potential patient benefits from ACP or AD completion, they may not initiate conversations surrounding these sensitive topics if they feel they lack adequate education and confidence in initiating the discussions. Thus, ACP discussions may not occur despite the patient need. Therefore, the question this project aimed to answer was does providing nurses with a short interactive educational course about ACP and ADs result in improved nurse confidence and knowledge regarding such conversations with patients in the inpatient setting?

Literature Review

A literature review was performed between September 2019 and November 2019 using the search engines CINAHL, Embase, Medline, and PubMed. The included articles were between the years of 2009 to 2019, written in English language, and with a focus on intervention-based studies. The search terms that were used for the literature review were: heart failure, advance care planning, patient education, nursing, palliative care, nurse-led education, nursing education, and advance directive. Multiple other searches were conducted to incorporate AND with the above search terms. A total of 19 articles met the initial criteria, and after careful review, 13 articles were used for the final literature review.

The literature search included gathering information to determine appropriate content for a four-hour educational session for the nurse champions. Topics of the search included benefits of nurse-led education, therapeutic communication strategies, and the overall impact nurse-led education had on ACP understanding and AD completion for patients.

Fretwell, Worlock, and Gleeson (2019) evaluated the use of a facilitated ACP model called the ACP Triple-E which uses a collaborative, systems approach to equip health and social

care professionals with knowledge, skills, and confidence in having ACP discussions. Effective components of the model included a three-tiered training process involving self-assessment and reflection activities, e-learning modules, workshops, ACP champions, discussions and documentation using role-play⁷. The study conducted by Fretwell et al. (2019) identified that nurses who were evaluated post-intervention described increased knowledge in the ACP areas of recognition of patients who would benefit from ACP, implementing conversations, importance of documentation, confidence identifying patient verbal and non-verbal cues during ACP discussion, and increased confidence and empowerment undertaking the ACP process, with overall confidence scores increasing from 5.61 to 8.7 out of ten⁷.

Methods

Project Design

This project was managed by two Doctor of Practice (DNP) students. The DNP students sought Institutional Review Board (IRB) from the state university where they were enrolled. The project was deemed exempt by the university. The DNP students also sought approval from the inpatient hospital IRB, and the project was determined to not require hospital IRB review.

Study Participants

During meetings with the inpatient HF team comprised of HF physician, nurse practitioners (NPs), and physician assistants (PAs), the importance of nurse-initiated ACP conversations and guidance through the AD completion process were discussed. The team unanimously agreed that nurses on the HF unit were in an optimal position to both identify patients who might benefit from ACP and AD completion as well as to conduct therapeutic conversations regarding ACP with those patients. Additional meetings with the hospital's

Palliative Medicine Team further encouraged the practice of nurse-initiated ACP and AD conversations with chronically ill patients and supported this as within the scope of clinical nurses.

Unit management from the selected inpatient unit approved funding for a four-hour class for eight selected nurse champions. The nurses who were chosen to participate in the project came forth on a voluntary basis, based on their desire to gain more education regarding ACP, thus no written consent was required. A total of eight nurses participated (one male, and seven females).

Content Development

The nurse champions were assessed on their knowledge of ACP and ADs and their comfort level of participating in ACP conversations with patients. Measurement tools for these indicators consist of pre- and post-tests created by the authors for the eight nurse champions.

See Table 1.

Table 1. Nurse pre and post test questions/statements.

I know what an advance directive is. (Strongly disagree-strongly agree)
I believe advance care planning improves patient quality of life. (Strongly disagree-strongly agree)
Locating advance directive in patient chart. (Not at all-extremely well)
Assessing patient understanding of advance care planning and advance directives. (Not at all-extremely well)
Initiating advance care planning conversations with patients. (Not at all-extremely well)
Helping patients fill out an advance directive. (Not at all-extremely well)
Documenting advance care planning conversations with patients. (Not at all-extremely well)
Discussing patient advance care planning with providers. (Not at all-extremely well)

The nurse champions were given the pre-test prior to their four-hour educational session, and then completed an identical post-test following completion of the class.

Development of the four-hour educational session for the nurse champions incorporated components of the evidence-based strategies gathered from the literature review, including defining ACP and ADs, identifying the role of nurses in ACP, differentiating palliative treatments from hospice care, self-evaluation, and utilizing the RELATE model of communication⁸. Role-playing scenarios were also conducted during the class in order to allow practice utilizing the RELATE model strategies. ACP and AD content was then incorporated into the inpatient unit's nurse-led HF class.

Project Objectives

The purpose of this project was to increase nursing knowledge and comfort level regarding ACP with patients who have HF in a clinical setting. The primary outcome of the project was to increase conversations regarding ACP and AD between nurses and patients with heart failure. The project has potential to be incorporated into other disciplines covering multiple chronic diseases where ACP would be beneficial to patient outcomes.

Statistics

The pre and post tests are succinct and ask the participants to rate their knowledge and comfort level using a Likert scale (1-5). Limitations of this method could be the simplicity of the questions potentially not identifying specific gaps in nursing knowledge of ACP, and inconsistency of results if all nurses do not complete both the pre- and post-tests. Also, the measurement tools were created by the DNP students, so validity of use has not been established.

The average knowledge and confidence scores were compared with a paired t-test to determine statistical significance from pre-to-post. Statistical significance was determined at the 5% level.

Results

Table 2 depicts the mean (standard error mean) for average nurse knowledge and average nurse confidence scores from pre- to post-test. The average knowledge did increase from 4.6 to 4.9 from pre-to-post (p-value = 0.049). The average confidence score was 2.8 pre-intervention and increased significantly to 4.3 at post-intervention (p-value = 0.001). Both increases in knowledge and confidence were statistically significant at the 0.05 significance level.

Table 2. Nurse pre and post results.

	Avg knowledge	Avg confidence
Pre	4.6 (0.1)	2.8 (0.2)
Post	4.9 (0.1)	4.3 (0.2)
p-value	0.049	0.001

Discussion

The eight nurse champions that volunteered for this project work on a 24-bed inpatient Medical Cardiology Progressive Care Unit specializing in care for patients with HF and valve/structural diseases. The champions showed an increase in both knowledge and comfort level regarding ACP, which could be attributed to the fact that they volunteered for the opportunity to teach a patient centered ACP class and were enthusiastic about meeting the patient need for ACP. Of note, all of the champions were nurses who had less than five years of experience, which may have contributed to their willingness to learn and their incentive to broaden their nursing skills.

Prior to initiation of this project, 65 RNs from this unit were polled and asked to complete a survey identifying barriers to ACP and AD conversations with patients. Out of the 65 nurses, 30 nurses completed the survey, with the majority rating their comfort level as low in regard to initiating ACP conversations with patients at the bedside. The majority of polled nurses

also indicated that they felt their patients did not have a sufficient understanding of the ACP process or AD completion despite the fact that both were beneficial to their patient population.

Following the education sessions for the nurse champions, it was determined that each champion would teach the class twice per week and evaluate patients' understanding with a pre- and post-test. The nurse champions would then be available following the class to answer patient questions, further discuss aspects of ACP, and assist patients with AD completion. Completion of ADs by patients who attended the class was planned through retrospective chart review. The project also planned to re-evaluate nurse champions comfort level and knowledge at six weeks post-implementation of the class. Due to unforeseen complications related to the Covid-19 pandemic, the study concluded following the nurse champions' post-test.

Limitations

Limitations of the project include the inability of the nurse champions to practice the skills learned in the four-hour educational session, as the unit HF class was suspended indefinitely due to Covid-19 pandemic restrictions, unit closure, and staff furloughs.

Another limitation to the project was that the role of ACP nurse champion was one which not all nurses on the unit embraced. While most nurses agreed that the content was important, many were not enthusiastic about initiating ACP conversations with patients. This meant that the effective delivery of information relied on having nurses interested and willing to learn the ACP content and communication techniques. Only 30 of the 65-unit nurses completed the unit survey, demonstrating a potential lack of nurse buy-in with the nurse-initiated ACP process and potentially skewing unit nurse scores regarding comfort and perception of patient knowledge regarding ACP.

Additionally, only eight nurse champions underwent the four-hour educational session and completed the pre- and post-tests, therefore the sample size was quite small. The tests only measured nurse knowledge and comfort level immediately following the class and longevity of these scores was not assessed after a six-week period as initially intended.

Conclusion

Preliminary data gathered from this project indicates that a four-hour educational session for nurses focusing on ACP and AD education and therapeutic communication strategies is effective in increasing nurse knowledge and comfort level with initiating ACP conversations with HF patients. Numerous opportunities exist to continue implementation of the class and expand the project to measure patient knowledge of ACP as well as patient AD completion following their education provided by the ACP nurse champions.

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Conflicts of Interest

The Authors declare that there are no conflicts of interest.

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