

**Evaluating Providers' Knowledge, Attitudes, and Intentions Toward Utilizing First Post-
Discharge Visit Checklist in Primary Care to Reduce Readmissions in Heart Failure
Patients**

Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Nursing
Practice at the University of Kentucky

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2023

Abstract

Background and Significance: Heart failure (HF) affects approximately 6.2 million adults in the United States and 40 million people globally. HF is one of the leading causes of emergency department (ED) visits and hospitalizations in adults. Twenty percent of patients admitted for HF are readmitted within thirty days, and up to fifty percent are readmitted by six months. A First Post-Discharge Visit checklist could help mitigate the problem of readmission.

Purpose: The purpose of this DNP project was to evaluate primary care providers' knowledge, attitudes, and intentions towards utilizing the First Post-Discharge Visit checklist to reduce hospital readmissions among HF patients.

Methods: In this quasi-experimental study, a one-group pretest-posttest design was used to assess APRNs knowledge, attitudes, and intentions regarding the use of the First Post-Discharge Visit checklist in heart failure (HF) patients. The data was gathered via a convenience sample through the Kentucky Association of Nurse Practitioners and Midwives listserv. The evaluation occurred through a survey before and after a five-minute educational module on the First Post-Discharge Visit checklist.

Results: At both assessments, almost all providers agreed readmission among HF patients is an issue. Few were aware of the checklist prior to the educational module (15%), which significantly increased post-education (80%, $p = .008$). There was also a significant increase in intentions to use the checklist (15% pre vs. 85% post, $p = .004$.)]

Conclusions: The awareness and intention to use the First Post-Discharge Visit checklist improved after viewing training module, which suggests education was effective. Whatever it takes to get providers to use this evidence-based checklist that improves the patient outcomes we

need to do. A brief web-based training module about it may be effective in increasing awareness and utilization.

Acknowledgements

I would like to take this opportunity to express my sincere appreciation to number of people who have helped and encouraged throughout my DNP curriculum. I would like to thank my advisor, Dr. Angie Grubbs. Her guidance, support, and encouragement helped to succeed in this program. She always went above and beyond to make sure my questions and queries were answered. Thank you for accommodating my needs when I was pregnant and needed to visit my family at home, Nepal. I am also grateful for my committee member, Dr. Ossege, and Dr. Tovar. Thank you for the providing resources, support, and encouragement throughout the program. I would like to acknowledge my fellow classmates, Mckenzie Buckel and Anna Selepina for continuous support and encouragement.

I would like to thank my amazing husband, Sudip Gaire, for being my mentor, advisor, and best friend throughout these three years. Without your unconditional love and support, I would not have succeeded the program. My son, who came to our life in the middle of the program, thank you for teaching me value of time management. You motivated me to be the best version of myself. My sincere gratitude to my mother-in-law and my father-in-law for leaving everything behind and coming to stay with us to take care of our kid. Words are not enough to thank you. I would like to thank my family for continuous support and encouragement throughout the program. Finally, I would like to thank my brother, Deepak Basyal. Without your continuous guidance, support, and encouragement, I would not be where I am today.

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Background and Significance

Problem Statement

Heart failure (HF) remains a significant public health concern even with recent advances in medical therapies and interventions. HF is known to affect approximately 6.2 million adults in the United States and 40 million people globally (Centers for Disease Control and Prevention (CDC, 2020; Vos et al., 2016). It is estimated that one in five adults by age forty will develop HF, and half of the people who develop HF will die within five years of diagnosis (Luepker, 2017). Leupker (2017) recorded that new diagnoses for HF were found to average 550,000 cases each year. In 2010, one million hospitalized patients were admitted under a primary diagnosis of HF (CDC, 2020). HF is known to be a significant cause of morbidity and mortality; the total number of deaths due to HF in the US was 84,000 in 2014 (Jackson et al., 2018). Unfortunately, twenty percent of patients admitted for HF are often readmitted within thirty days, and up to fifty percent are readmitted by six months, presenting a vital problem primary problem currently faced by hospitals (Gupta et al., 2019).

Context, Scope, and consequences of the problem

HF is the most common reason for hospitalization for adults aged 85 years and older (Mozaffarian et al., 2016). Aside from the physical and emotional burdens associated with frequent hospitalizations, there is also the financial burden for the patient, their family, and the hospital and healthcare infrastructure. In 2012, the estimated cost for the treatment of HF, including health care services, medicine, and missed days of work, was \$30.7 billion (CDC, 2020). HF leads to a vicious cycle of sickness leading to emergency department (ED) visits and hospitalization, increasing the financial burden on patients, their families, and healthcare

organizations. A large amount of medical cost could be saved by preventing the readmission of HF patients.

As cases of HF continue to grow, as well as the associated hospitalization and readmission, the financial burden in the United States and worldwide has also increased (Braunwald, 2015). Almost one in four patients admitted with HF are readmitted within 30 days of discharge (Bailey et al., 2019). In 2014, 1.1 million ED visits and 1.0 million hospitalizations were due to HF in the United States (Jackson et al., 2018). As a result, the total costs due to HF hospitalizations were estimated to be greater than \$11 billion in 2014 (Jackson et al., 2018). The specific medical cost for HF treatment is estimated to rise to \$53.1 billion by 2030 (Ziaieian & Fonarow, 2016).

Factors contributing to the hospitalization and readmission in HF patients are lack of education, medication non-adherence, lack of multidisciplinary treatment, poor coordination of care after discharge, inability to keep the follow-up after discharge, lack of caregiver, and lack of finances (Al-Omary et al., 2018; Saito et al., 2016; Sperry et al., 2015). Therefore, to decrease the occurrence of these hospitalizations, and their associated financial burdens, primary care providers (PCP) must continuously work on ways to prevent the current hospital admission and readmission rates through continuous monitoring and follow-up after discharge.

Current evidence-based interventions/strategies targeting the problem

Despite the importance of the post-discharge follow-up visit, it has received little specific attention in the literature, and there is no well-established agreement on best practices for this type of encounter. Studies have found that when patients have post-hospitalization follow-up with PCP as early as seven days post-discharge, there is a reduction in ED visits, readmission,

and even death (Edmonston et al., 2019; McAlister et al., 2016; Vedel & Khanassov, 2015). The American College of Cardiology (ACC, 2019) proposed a checklist to be followed by the PCP for the post-discharge follow-up appointment among hospitalized HF patients. The First Post-Discharge Visit checklist is intended to guide the visit to ensure pertinent information is covered during the follow-up, eventually helping to reduce hospital readmission. However, there is a significant knowledge gap in using this checklist and its correlation to readmission rates in HF patients. Given this knowledge gap and the significance of the HF readmission, this study aimed to evaluate the provider's knowledge, attitudes, and intentions toward utilizing a First Post-Discharge Visit checklist to reduce readmissions in HF patients.

Synthesis of Evidence

PICOT question and search methods

To determine the evidence supporting the use of a post-discharge follow-up checklist in enhancing provider's knowledge and prevention of hospital readmissions in HF patients, a review of the literature was conducted. The clinical question examined by this DNP project is: How has the implementation of the First Post-Discharge Visit checklist in primary care settings impacted hospital readmission rates among HF patients? Using databases such as PubMed, Google Scholar, and CINAHL, articles relevant to the topic were identified. "Heart failure," "hospital discharge," "aftercare," and "follow-up" were among the keywords included. Peer-reviewed articles published in English within the last ten years were included in this search. Although no studies on the use of the First Post-Discharge Visit checklists were found, articles on the use of checklists (Basoor's checklist, Yale's HF checklist, & other heart disease checklist) in inpatient settings were considered relevant to the clinical question.

Review, analyze, and synthesize evidence

Following a review of the literature using the stated criteria, seven articles were chosen based on the quality of evidence, sample size, and theme surrounding the checklist in HF patients and its outcomes. Out of seven selected articles, six were quality improvement studies (Abdallah et al., 2017; Chua et al., 2018; Cowie et al., 2017; Frederick et al., 2016; Lewis et al., 2014; Punnanithinont et al., 2016) and one was a randomized controlled trial (Basoor et al., 2013); all were conducted in a hospital setting. These studies reported results from Australia (Chua et al., 2018), the USA (Abdallah et al., 2017; Basoor et al., 2013; Frederick et al., 2016; Lewis et al., 2014; Punnanithinont et al., 2016), and globally (Cowie et al., 2017). The sample size ranged from 34 to over 5,000 patients. Punnanithinont et al. (2016) and Cowie et al. (2017) found increased adherence rates of providers to current HF guidelines and decreased readmissions of HF patients through the utilization of the checklist. Similarly, a quality improvement study in post percutaneous coronary intervention (PCI) patients found a decreased readmission rate of 9.6 % in 2011 to 5.3 % in 2015 with the utilization of the checklist (Tanguturi et al., 2016). This DNP project, like these quality improvement studies, was a quality improvement project with the goal of educating providers on the First Post-Discharge Visit checklist for HF patients.

Summary of evidence

Quality improvement studies (Abdallah et al., 2017; Cowie et al., 2017; Frederick et al., 2016) and randomized controlled trials (Basoor et al., 2013) support that providing providers with a standardized tool such as an evidence-based checklist leads to a better quality of care and fewer readmissions. In addition, another quality improvement study by Frederick et al. (2016) used a checklist for over 5,000 patients and reduced the 30-day readmission rate by 3%. Multiple

quality improvement studies suggest advantages of checklist use, such as improved symptoms and illness management, increased adherence to treatment guidelines by providers, as well as improved outcomes, such as a reduction in readmissions (Tanguturi et al., 2016; Chen et al., 2016; Cowie et al., 2017).

Current state, desired state, and gaps in practice.

The use of checklists to guide a post-discharge hospital follow-up in primary care settings in HF patients is currently limited (Soufer et al., 2017). The ideal situation is for all providers to use checklists during post-hospital follow-up visits with HF patients as suggested by the American College of Cardiology to standardize care. The current gap is that most providers are unaware of the First Post-Discharge Visit checklist's existence or how to use it (Coleman, 2010; Soufer et al., 2017).

How proposed project addresses the gaps.

To address the gap, providers' knowledge, attitudes, and intentions towards the First Post-Discharge Visit checklist was assessed via a survey sent through a listserv, and web-based education was provided on the First Post-Discharge Visit checklist in the hopes of increasing awareness of the checklist and its utilization.

Purpose/Objectives

The purpose of this DNP project was to evaluate providers' knowledge, attitudes, and intentions towards utilizing First Post-Discharge Visit checklist to reduce readmissions in HF patients. The checklist is a simple tool to help reduce the readmission rates in HF patients.

Aims

The specific aims included:

1. Evaluate and increase providers' knowledge of the First Post-Discharge Visit Checklist for patients with HF.
2. Evaluate a change in providers' attitudes and intentions towards utilizing the First Post-Discharge Visit checklist for patients with HF.

Theoretical/Conceptual Framework or Model

Lewin's change theory served as the study's conceptual framework. There are three stages in the framework: unfreeze, change/transition, and freezing/refreeze (Shirey, 2013). The first phase, unfreezing, addresses the problem or process that requires change and makes people aware of the need for change (Lewin, 1951). The project's unfreezing phase guided research focused on the rising problem of HF readmission and the need for change in primary care to combat this problem. During the project, the PI examined current guidelines for the First Post-Discharge Visit in HF patients and identified an area for potential change. The First Post-Discharge Visit checklist was discovered to be the recommended evidence-based checklist for guiding the first hospital follow-up visit in HF patients. The actual implementation of the change occurs in the second phase, moving or changing (Lewin, 1951). During this phase, the providers received education on the current HF readmission statistics, First-Post-Discharge Visit checklist, how to use it, and the benefits of using the checklist. The implementation of the change is monitored in the third phase, refreezing, and adjustments are made as needed (Lewin, 1951). At this stage, people become accustomed to the new procedure. Hopefully, through this project providers are aware of the checklist and its benefits and will start using it in their daily practice.

Design of the Study

This study used a quasi-experimental one-group pretest-posttest design to assess primary care providers' knowledge, attitudes, and intentions regarding the use of the First Post-Discharge Visit checklist in HF patients. The providers completed a pretest and post-test before and after completing a training module on the First Post-Discharge Visit checklist for HF patients.

Setting

Agency description

The Kentucky Association of Nurse Practitioners and Nurse Midwives (KANPNM) is a professional organization comprised of 1452 nurse practitioners and midwives. Advanced practitioners such as family nurse practitioners, pediatric nurse practitioners, adult nurse practitioners, psychiatric nurse practitioners, women's health nurse practitioners and midwives subscribe to the KANPNM listserv.

Congruence of project to selected agency's mission/goals/strategic plan

The mission statement of KANPNM is, "to empower Kentucky APRNs in providing quality, accessible, and compassionate healthcare through education, leadership and advocacy." This study aligns with the KANPNM's mission statement of providing quality and compassionate care by educating providers on the use of a First Post-Discharge Visit checklist with a goal to reduce readmissions in HF patients.

Description of stakeholders

For this project, several stakeholders were involved including Kentucky nurse practitioners who are members of the association. Volunteers in the study were educated on HF readmissions and the First Post-Discharge Visit checklist, enabling them to implement this knowledge into daily practice. Patients with HF and their families are stakeholders with firsthand disease experience. Due to the education provided to the providers, the patient potentially had better follow-up visits which could in turn reduce the readmission rates within the HF population.

Potential site-specific facilitators and barriers to implementation

Certain facilitators and barriers were unique to the physical space and digital framework of KANPNM when putting this project into action. One facilitator is KANPNM's easy access to the listserv. In addition, this survey and educational training module can be completed in any setting that the participant chooses due to the nature of the online module. One barrier would be survey fatigue because of the large number of surveys distributed via the KANPNM listserv. Additional barriers include the amount of time required to complete the survey as well as the educational module.

Sample

Target population (inclusion/exclusion criteria)

The sample was a convenience sample of volunteers who subscribe to the KANPNM listserv. All the member of KANPNM who subscribe to listserv was eligible for inclusion. Furthermore, members of the association who do not subscribe to the listserv were excluded from the study. Potential participants were contacted via the organization's listserv via email.

Procedure

IRB submission process

Prior to the study, the University of Kentucky Institutional Review Board (IRB) was consulted. The IRB granted approval in the September of 2022. Permission was obtained to post the cover letter and survey on the KANPNM listserv. All the participants in the survey will remain anonymous. Data was stored on the password protected computer on the UK server.

Measures and instruments

The survey for this study included information on age, gender, APRN specialty certification, ethnicity/race, and years of experience level of participants. For a total of eight questions, the survey included five demographic questions, two attitude questions, one knowledge question, and one intention question. Demographic data was also gathered from participants. The questions about knowledge, attitudes and intentions were obtained in yes-or-no format. The survey questions were developed by referencing the literature and other already developed surveys. The questions were made simple to read and understand. To appeal to multiple common learning styles, an audio narration and a visual presentation accompanied the educational module. The education module was five minutes long. The pre and post survey was created using Qualtrics and included in the learning module.

Data collection

The data collection for this study occurred over a three-week time with the education module intervention. Pretest surveys examining demographics, knowledge questions, and main outcome measures were sent in survey link to participants. The PI sent a one-week reminder

email to the listserv. After completing the pre-surveys, the participants watched the education module. Immediately following the educational module, the participants responded to post survey questions, which were like the pretest questions. The participants had to view the education module to its entirety before continuing to the post survey.

Data analysis plan

Data analysis was completed by using IBM SPSS statistical software. Descriptive statistics were used to describe the demographics of the population, including frequency distributions, standard deviations, and means. McNemear's test was utilized to explore the pre- and post-scores on providers' knowledge of the importance of using a First Post-Discharge Visit checklist in HF patients. Level of significance was set at p 'less than or equal to' 0.05.

Timeline of project phases (submission of IRB to DNP presentation)

The project was completed over a seven-month time frame. First, IRB approval was obtained in September of 2022. Next, the data collection from the KANPNM began in October over a three-week period. Followed by data collection, data analysis occurred in November 2022. Furthermore, the data submission to committee will take place on March 2023. Finally, the DNP project write-up and presentation occurred in April 2023.

Feasibility and plan of sustainability

This project was completed successfully. This project was also very feasible as this did not necessitate the expenditure of any funds since its implementation was entirely digital, and therefore little to no cost. The study had the potential to enhance the provider's knowledge on the First Post-

Discharge Visit checklist among the HF patients and to decrease the rate of readmission among the HF patients. To support the sustainability of the project, hopefully another DNP student will carry on this project in the future by taking this information and implementing the First Post-Discharge Visit checklist among HF patients in a primary care clinic. The resources that supported this study include personnel and technology support. The key personnel on this study were the PI and the DNP committee. The Qualtrics program, IBM SPSS software, KANPNM members, KANPNM listserv, Microsoft Excel, and the College of Nursing Statistician was used throughout this project.

Results

Fifteen nurse practitioners clicked the link to the survey, and 13 out of the 15 completed the surveys. All the participants were female (100%), and the majority were white, non-Hispanic (92%; Table 1). Over three-quarters (76%) of the participants were family nurse practitioners. Other certifications included geriatric nurse practitioner and two of the participants did not specify their certification. The years of experience ranged from 20 or more years in practice (23%) to less than one year (23.1 %).

Attitude

For this study, two questions about the issue of HF readmission and the First Post-Discharge Visit checklist were used to assess providers' attitudes. The pre- and post-surveys assessed providers' attitudes regarding readmissions among HF patients and the use/existence of the First Post-Discharge Visit checklist before and after an educational module. On the pre survey, 92% (n=13) agreed readmission among HF patients is an issue, and 100 % participants

agreed on the post education survey. The second attitude question, “The First Post-Discharge Visit checklist helps to guide the first visit of the HF patient after being discharged from the hospital” revealed 92% (n=13) of participants answered yes before education module, and 100%, all 13 participants answered yes after the post-survey.

Intention

In this study, a question was used to assess providers' intentions towards the First Post-Discharge Visit checklist. The survey assessed providers' intentions towards utilizing the First Post-Discharge Visit checklist among hospitalized HF patients before and after the education module. In the pre-education survey, 15% (n=13) of participants said they utilize/intend to utilize the first post discharge visit checklist, which increased significantly to 85% (n=13) on the post-survey ($p=.004$; see Table 2).

Knowledge

In this study, a question regarding the awareness of the First Post-Discharge Visit checklist was used to assess providers' Knowledge towards the checklist. The survey evaluated provider's knowledge of the First Post-Discharge Visit checklist before and after the education module. In the pre-education survey, 15% (n=13) of the participants said that they were aware of the first post discharge visit checklist, which increased significantly to 80% (n=13) on the post-survey ($p=.004$, Table 2).

Discussion

This project assessed and evaluated providers' knowledge, intentions, and attitudes of the First Post-Discharge Visit checklist in primary care to reduce readmissions in HF patients. Through an online education module, providers were educated about the HF healthcare cost burden and the use of the First Post-Discharge Visit checklist to be utilized among HF patients in follow up visits. Providers' knowledge, attitudes, and intentions towards HF and the First Post-Discharge Visit checklist were evaluated pre and post education.

Readmission among HF patient is an issue many studies have researched. However, the number of readmissions among HF has stayed consistent. In this study, after a short educational module, there was an increase in the number of providers that agreed that HF readmission is an issue. In addition, few were aware of the First Post-Discharge Visit checklist prior to the educational module. Through this study, there was increase in knowledge and intentions of utilizing the checklist, which shows education intervention can be effective.

Lewin's change theory is a three staged model of change that requires prior knowledge to be rejected and replaced. The first phase, unfreezing, addresses the problem or process that requires change and makes people aware of the need for change (Lewin, 1951). Based on this theory, a provider's knowledge of the First Post-Discharge Visit checklist could act as a limitation toward utilizing the checklist. Therefore, education on the available resources to guide the post-hospital follow-up visit could serve as a method to reduce barriers for the utilization of the First Post-Discharge Visit checklist. The results of this study support that an education module can serve to increase the awareness and knowledge of the First Post-Discharge Visit checklist.

Compared to the literature and this project, it is apparent that there continues to be a lack of awareness of the First Post-Discharge Visit checklist. Soufer et al (2017) stated that the use of

checklists to guide post-discharge hospital follow-up in primary care settings in HF patients is currently limited. In the project, less than 15% of respondents were aware of the checklist prior to the educational module. Moreover, there was a significant increase in intentions to use the checklist after the education. This indicates that there is a lack of awareness of the First Post-Discharge Visit checklist and the education module utilized for this project increased awareness of the checklist and intention to use occurred after implementation of the education module. Besides, educating providers on the First Post-Discharge Visit checklist should aid in the implementation of the standardized practice recommended by the American College of Cardiology.

Implications for the Future

Based on the results of this study, an education module on the HF readmission and the First Post-Discharge Visit checklist can raise awareness on the issue and may lead to practice change. Although this study did not measure practice change, the positive and significant change in provider intention is promising. This study showed that many providers are unaware of the First Post-Discharge Visit checklist that exists to guide HF patients' first post discharge after discharge from the hospital. The module can be taken even further to include more providers such as medical doctors, physician assistants, and other healthcare providers. The module could be presented at conferences to inform more providers about the First Post-Discharge Visit checklist among HF patients. Simply getting information out to providers about the checklist, like this study showed, is likely to increase the number of providers who use the First Post-Discharge Visit checklist.

In consideration of these findings, future studies to examine providers' barriers in the usage of post-discharge follow-up checklist among HF patients as recommended by the American College of Cardiology is warranted. With the education module provided to all the providers, increased knowledge may lead to adoption of the First Post-Discharge Visit checklist in the daily practice.

Limitations

There were some limitations identified in the design of this study. First, this project was conducted for a limited amount of time. Secondly, the post survey received fewer responses than pre survey, which may indicate the presence of survey fatigue. Despite efforts to make the learning module short and concise, some participants did not complete the study. Generalizability of the findings are limited due to the small sample size, which was limited to one geographic area and only nurse practitioners as providers. However, within the parameters of the inclusion criteria, the study results provide valuable information. Another limitation was that the findings were based on providers' self-reports of their perceptions and knowledge. Various types of providers from all over the United States could be included in future studies which would increase the sample size as well as omit the limitation of generalizability.

Conclusion

HF is a significant healthcare problem with severe healthcare cost burden due to admission and readmission among this population. There is a need for an organized post-discharge follow-up visit to optimize patient care quality and decrease the readmission rates. The American College of Cardiology suggests using the First Post-Discharge Visit checklist, but

there is a significant knowledge gap on the checklist. This study confirmed the knowledge gap among the providers and through the education module, there was an increase in knowledge and awareness of the First Post-Discharge Visit checklist. There was also positive improvement in attitude and intentions among the healthcare providers after the education module. Further research is needed to determine the prime reason for the knowledge gap about the checklist among healthcare providers. While increasing knowledge may not be the sole component needed to encourage or implement a practice change, raising awareness of an available tool is essential to move forward and improve patient care quality and reduce hospital readmissions.

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Table 1 Descriptive summary of demographic variables (N =13).

Characteristic	<i>n</i> (%)
Gender	
Female	13 (100.0%)
Male	0 (0.0%)
Ethnicity	
White, non-Hispanic	12 (92.3%)
Hispanic	1 (7.7 %)
Certification	
Family Nurse Practitioner	10 (76.9%)
Geriatric Nurse Practitioner	1 (7.7%)
Other	2 (15.4%)
Years of practice	
1-5	3 (23.1%)
6-10	1 (7.7%)
11-15	4 (30.8%)
15-20	2 (15.4%)
20 or more	3 (23.1%)

Table 2 Changes in attitudes and intentions before and after the educational presentation (N = 13).

	Pre- education % yes/true	Post- education %yes/true	<i>P</i>
Readmission among HF patients is an issue	92.3%	100.0%	n/a ^a
The "First Post-Discharge Visit" checklist helps to guide the first visit of the HF patient after being discharged from the hospital.	91.7%	100%	n/a ^a
I utilize/intent to utilize "First Post-Discharge Visit" checklist to guide the first visit in HF patients after being discharged from the hospital.	15.4%	84.6%	.004
I am aware of the "First Post-Discharge Visit" checklist tool.	15.4%	80.0%	.008

^a *p* not available for 2x1 classification tables (i.e., zero 'no' responses on the post-education)

Appendix 1 Timeline

Dates	Goals
October 2023	Collect Data
November 2023	Data Analysis
March 2023	Submit to Committee
April 2023	Presentation

Appendix 2 Survey

3/9/23, 5:44 PM

Qualtrics Survey Software

Demographics

Gender

- Male
- Female
- non-binary/third gender
- prefer not to say

Ethnicity

- White, non-hispanic
- Black, non-Hispanic
- American Indian or Alaska Native
- Asian
- Native Hawaiian or Pacific Islander
- Hispanic
- other

Certification

- Family Nurse Practitioner
- Geriatric Nurse Practitioner
- Acute Care nurse Practitioner

How long have you been a provider

- Less than 1 year

https://uky.az1.qualtrics.com/Q/EditSection/Blocks/Ajax/GetSurveyPrintPreview?ContextSurveyID=SV_abHyM7ky6nhXYTc&ContextLibraryID=UR_0izYtFOJDD... 1/4

- 1-5 years
- 6-10 years
- 11-15 years
- 16- 20 years
- 20 or more

Provider Knowledge and Intention question

Readmission among HF patients is an issue.

- Yes
- No

The "First Post-Discharge Visit" checklist helps to guide the first visit of the HF patient after being discharged from the hospital.

- True
- False

I utilize "First Post-Discharge Visit" checklist to guide the first visit in HF patients after being discharged from the hospital.

- Yes
- No

I am aware of the "First Post-Discharge Visit" checklist tool.

- Yes
- No

Block 3

Please watch the video below

**Post-Survey Questions**

Readmission among HF patients is an issue.

- Yes
- No

The "First Post-Discharge Visit" checklist helps to guide the first visit of the HF patient after being discharged from the hospital.

- True
- False

I intend to utilize "First Post-Discharge Visit" checklist to guide the first visit in HF patients after being discharged from the hospital.

- Yes
- No

I am aware of the "First Post-Discharge Visit" checklist tool.

- Yes
- No

Powered by Qualtrics

Appendix 3 Instrument

FIRST POST-DISCHARGE VISIT

- History**
 - Discharge summary reviewed.
 - Etiology of cardiomyopathy identified.
 - Precipitant of exacerbation identified.
 - Heart failure compensated?
 - NYHA class.
 - Weight log reviewed?
 - Symptoms reviewed?
 - Important concomitant disease states
 - CKD
 - Diabetes
 - Hypertension
 - COPD
 - OSA
 - Others
- Physical Exam**
 - Vital signs
 - BMI
 - Orthostatic blood pressure
 - Jugular venous distention
 - Rales +/-
 - “cold/warm”, “wet/dry” profile
 - S3 present/absent
- Diagnostic Testing**
 - Basic metabolic panel
 - Complete blood count
 - BNP or NT pro-BNP
 - Liver function panel (per discretion of clinician)
 - Iron studies (per discretion of clinician)
 - High sensitivity troponin, sST2, Gal-3 (per discretion of clinician)
 - 12 lead ECG
 - Chest X-Ray (per discretion of clinician)
 - Review LVEF (___%). If not available, attain TTE
 - Follow-up EF:
 - 40-days post MI
 - 3-months post NICM
 - Ischemia evaluation needed?
- Medications**
 - Comprehensive medication reconciliation
 - Beta-blocker?
 - Dose optimized?
 - ACEI/ARB/ARNI
 - Dose optimized?
 - Contra-indication to ARNI?
 - Aldosterone antagonist
 - Dose optimized?
 - Diuretics?
 - Dose adjustment?
 - Ivabradine? (Consider initiation if heart rate remains elevated despite beta blocker optimization)
- Interventional therapies (if applicable)**
 - Revascularization
 - CRT
 - ICD
 - Valvular intervention
- Patient education**
 - Importance of adherence
 - Medication education
 - Dietary education
 - Activity education
 - Smoking cessation
 - Cessation in alcohol consumption
 - Follow-up appointment scheduled
- Consultations**
 - Home health services
 - Cardiac rehab referral
 - Advanced heart failure clinic referral
 - Palliative/hospice referral

Appendix 4 Recruitment Cover Letter

Dear Kentucky Association of Nurse Practitioners and Nurse Midwives,

My name is Binu Bashyal, BSN, RN, and I am a member of the University of Kentucky DNP class of 2023. I am conducting this research as an advisee of Angela Grubbs, DNP, APRN.

I previously shared a survey with you on the provider perspectives in the utilization of the first post-discharge checklist during the follow-up visit among heart failure(HF) patients. I appreciate all the great responses to that survey and this is a reminder email for those who have not participated yet. Please take the time to complete this survey at your earliest convenience.

https://uky.az1.qualtrics.com/jfe/form/SV_abHyM7ky6nhXYTc

Thank you in advance for your assistance with this important project.

Please contact me or my advisor with any questions,
Binu Bashyal, BSN, RN,
College of Nursing, University of Kentucky
bbashyal@uky.edu
765-631-6999
Angela Grubbs, DNP, APRN (DNP-Advisor)
Angela.grubbs@uky.edu
859-323-6605

Appendix 5 Reminder Email

Dear Kentucky Association of Nurse Practitioners and Nurse Midwives,

My name is Binu Bashyal, BSN, RN, and I am a member of the University of Kentucky DNP class of 2023. I am conducting this research as an advisee of Angela Grubbs, DNP, APRN.

I previously shared a survey with you on the provider perspectives in the utilization of the first post-discharge checklist during the follow-up visit among heart failure(HF) patients. I appreciate all the great responses to that survey and this is a reminder email for those who have not participated yet. Please take the time to complete this survey at your earliest convenience.

https://uky.az1.qualtrics.com/jfe/form/SV_abHyM7ky6nhXYTc

Thank you in advance for your assistance with this important project.

Please contact me or my advisor with any questions,
Binu Bashyal, BSN, RN,
College of Nursing, University of Kentucky
bbashyal@uky.edu
765-631-6999
Angela Grubbs, DNP, APRN (DNP-Advisor)
Angela.grubbs@uky.edu
859-323-6605

Appendix 6 Approval for DNP project from KANPNM



**THE KENTUCKY ASSOCIATION OF NURSE PRACTITIONERS
AND NURSE-MIDWIVES**

P.O. Box 991307, Louisville, KY 40299-1307 | 502-333-0076 | www.kcnpnm.org

August 16, 2022

Re: Assistance with DNP project

To whom it may concern:

The Kentucky Association of Nurse Practitioners and Nurse Midwives (KANPNM) supports the following Doctor of Nursing Practice (DNP) project that will gather data and evaluate providers' knowledge, barriers, attitudes, and intentions towards utilizing the *First "Post-discharge" Visit* checklist to reduce readmissions in HF patients.

This project will be conducted virtually by the University of Kentucky's Nurse Practitioner (DNP) doctoral student, Binu Bashyal, BSN, RN, CVRN, and will utilize the Association's listserv to seek participants.

The KANPNM understands signing this letter of intent indicates our support, and agreement to collaborate with the student throughout the study. Providing a signature also grants Binu Bashyal permission to utilize our association as a resource to recruit participants, complete this DNP project, analyze the data, and present the findings using deidentified data. KANPNM understands that this DNP project proposal will be reviewed by the University of Kentucky's Institutional Review Board (IRB) prior to data collection.

The Association wishes Binu Bashyal every success with this endeavor.

Regards,

Jill York
Executive Director