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Congestive Heart Failure Educational Approach Benchmark Study

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Congestive Heart Failure Educational Approach Benchmark Study

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NURS 5382: Capstone

In the School of Nursing

The University of Texas at Tyler

to

Dr. Colleen Marzilli

December 4, 2022

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Executive Summary

Congestive heart failure (CHF) is a disease that is difficult to manage because it is so complex. This often leads to frequent hospital readmissions, and this places a burden on our healthcare system, registered nurses, doctors, and case managers. A frequent complaint from registered nurses is that there is not enough time in a shift to give proper medical care and to properly educate CHF patients on their disease. Twelve hours might seem like a significant amount of time to some, but when you are having to complete all the nursing tasks required for patient care, finding time to educate patients properly can seem like a difficult task. Doctors come into the rooms each morning for rounds, spend ten minutes with the patient to discuss their plan of care and then have to finish rounding on the rest of their patients. The case managers are busy completing paperwork, finding placement for patients, and dealing with insurance companies leaving them little time to provide proper education.

The current practice of having the registered nurse complete all the CHF education is not effective. Simply, there is just not enough time for one person to do it all in a short period of time. Education is extensive, and most patients have no background in healthcare, so they leave the hospital feeling unprepared to manage their disease at home. Therefore, it is recommended to have a multidisciplinary approach when it comes to CHF education. Utilizing several team members for CHF management will improve patient outcomes, reduce hospital readmission rates, death, and hospital costs.

1. Rationale for the Project

Research shows that it is estimated 4-6 million adults in the United States are living with congestive heart failure (CHF), and it is the leading cause of mortality, morbidity, and disability worldwide (Harvey et al., 2021). Hospital readmission rates in CHF patients continue to soar throughout the United States. One in four patients diagnosed with CHF will be readmitted to the hospital within thirty days, and the direct costs from CHF are estimated at more than \$33 billion (Almkuist, 2017). The lack of patient education and patients' overall lack of understanding about CHF management is a leading cause of readmission (Caluya, 2021). If proper patient education is not being completed, and patients feel it will be difficult to manage their disease, readmission rates will only continue to increase as the population ages.

Hospital readmission rates in CHF patients continue to soar throughout the United States. With the current technology and medications available, this disease should be one that is well-controlled at this point. The likely cause of this is a lack of proper patient education and patient monitoring. As healthcare providers, it is vital we use the best evidence-based practice findings for our patients.

1.1 Project Goals

The goal of this Benchmark project is to reduce the hospital readmission rates, death rates, cost, and improve quality of life in CHF patients. By utilizing EBP and having a well-rounded team, the hospital and patient population could greatly benefit from the proposed change. It is my hope that the evidence found will be applied in practice, studied, and made permanent based on evidence findings that it is successful. The goal is to help our patients manage their disease well so they can go about their daily lives and stay out of the hospitals. The literature reviewed in this paper defines the problems at hand and offers several solutions.

2. Literature Discussion to Support Project

Despite current hospital educational approaches for CHF patients, there is little research to suggest that hospital readmission rates have improved over the years. Identifying the best evidenced educational approach that reduces CHF readmission rates will alleviate the costs on hospitals, improve patient's quality of life, and reduce patient's mortality. There are several approaches to education; a multidisciplinary approach and a 1:1 approach which is discussed later in this paper. Disease management programs (DMPs) are discussed heavily in the research, each article discussed has its own criteria for a DMP and the outcomes they have on readmission rates, cost, and death related to CHF.

(Chantel, 2020; Huynh, 2019) examined if disease management programs (DMP) were effective in reducing hospital readmission rates in CHF patients. The studies found that CHF readmission rates decreased compared to the control groups that did not have DMP in place. Shah et al. (2018) found that the use of interprofessional teams that included cardiologists, psychologists, dieticians, and pharmacists was effective in reducing HF related readmissions compared to patients that did not have an interprofessional team in place after discharge.

(Van Spall, 2017; Yuan, 2021) found that the use of transitional care interventions (TCI) that included close follow up after discharge, nurse home visits, and disease management clinics were effective in reducing hospital readmission rates, cost and death in HF patients. Wakefield et al. (2013) also found that utilizing an outpatient program to educate patients' on monitoring their symptoms and medication adherence was effective in reducing hospital readmissions and death. Almkvist (2017) found that a teach back method was effective in improving patients overall understanding of HF, symptoms to recognize of worsening condition, and importance of medication adherence. This led to an overall reduction in readmission rates compared to the control groups that did not receive teach back methods. Chen et al. (2020) also examined the effectiveness of a pre-discharge educational program combined with 1-year post-discharge follow-up in reducing readmission rates. Patients that were closely followed and that completed the educational program had a reduction in readmission rates compared to the control group. Boyde et al. (2018) examined the effectiveness of a multi-media educational approach that include home DVDs on HF anatomy, management, and medication adherence. Patients were able to take this and watch in the comfort of their homes, the multi-media educational approach was found to be effective in reducing hospital readmission rates.

Heo et al. (2019) completed a study on how patients perceived living with HF and how it affected their overall outcomes and ability to live with their disease. An interview was completed and found that overall, most patients perceive difficulties living with HF. Patients' perception of their diseases needs to be addressed prior to starting interventions because their attitudes will determine how they handle and manage their disease. Sarbooji et al. (2020) found that letting patients self-determine their discharge plans and goals resulted in a reduction of hospital readmission rates.

Finally, Rice et al. (2018) examined the effectiveness of a nurse led 1:1 education in reducing readmission rates, cost, and improving quality of life. Patients were followed up at six and twelve weeks from discharge, the patients in this study had an overall reduction in readmission rates, hospital costs were reduced, and patients reported an improved quality of life.

3. Project Stakeholders

The stakeholders affected by this proposed change will be the CHF patient population, administration, and hospital employees. The people I need permission from to implement the change project would be the unit manager, CEO of THR, and the change champion on the unit. The change champion on the unit would be the greatest ally in getting the approval process moving quickly. Stakeholders for the evidence-based practice educational training will include facility nurse managers, nurse educators, nursing supervisors, registered nurses, medical doctors, nurse practitioners, and case managers.

4. Plan for Implementation

The steps of my implementation plan are to provide the evidence that reduces hospital readmission rates, death, and cost to our change champion. After discussing the change, the proposed change project will be taken to the unit manager, in which we will discuss further with supervisors. Once this is approved, we will take the change to our CEO for evaluation and approval to implement the change within THR. The timeline for these steps is listed in detail below.

Step 1: Determine

In the first week of the project, determining the number of CHF patients within THR, cost of CHF patients, cost of readmission, and number of deaths related to CHF is crucial. Determining the number of CHF patients within THR will be collected through the EMR data

base and totaling the number of patients with a newly diagnosis of CHF or existing diagnosis of CHF. Gathering the cost of CHF patients' will be accomplished by meeting with the chief financial officer (CFO) of the organization and reviewing the total costs the patient population has on the hospital system, and the costs of readmissions. The number of deaths related to CHF will also be determined through the EMR within the organization. The data will be shared with the project team members, so they have a basic understanding of how this is impacting the organization and show that change is needed.

Step 2: Design and Create

A folder will be created related to CHF. The folder will contain educational handouts on the disease process of CHF, functions of the heart, and why keeping this disease under control is crucial. A notebook will be created that is a symptom tracker, this will allow the patient to enter the current date, their morning dry weight, medications they are taking, and symptoms related to CHF such as edema, weight gain, shortness of breath, dyspnea on exertion, orthopnea, and cough. Patients will then write in the information and check for any symptoms that may be occurring. There will be a legend on the side of each page, with a daily weight gain range that places them in a green, yellow, or red zone. A green zone indicates they are monitoring their disease effectively and to continue the current plan of care. The yellow zone advises them to call their doctor and discuss their symptoms. The red zone indicates they need to be seen in the emergency department. The same will be true for symptom monitoring, if they have one of the above symptoms occurring, the legend places them in the yellow zone, 2 or more of the above symptoms places them in the red zone. The goal of patients' tracking their symptoms and knowing what zone they are in will help them be able to make changes before an ED visit occurs.

Step 3: Propose

The folders discussed above will be taken to the unit manager and change champion, along with the data gathered from the EMR and CFO findings. The manager and change champion will review the folder, provide any feedback and hopefully agree to implement the project within the organization.

Step 4: Training

Training will be provided to staff that are willing to participate in the project. The RNs, MD's and case managers that are going to participate will be given a paid training session lasting 2-3 hours in a hospital educational room. Staff will be shown the data and impact CHF patients' have on the hospital, and they will each be given the folder created for the patients to use. Each page within the folder will be reviewed with staff, allowing for questions and suggestions throughout the training session. The participating staff will be asked to use the folder at home as if they were a CHF patient so that they have a good understanding of how patients will use this once leaving the hospital.

Step 5: Implement

Implementing the change project will consist of having the folders placed on the unit, and when a patient newly diagnosed with CHF, or a patient is admitted with an existing CHF diagnosis the folder will be brought to them upon admission so education can begin right away. The primary RN will start the education process and educate the patient on how to fill out the information. The patient will be asked to do this from the time they are admitted and monitor their symptoms while in the hospital. The rounding MD's can reinforce the information in the folder and restate the importance of monitoring their symptoms to keep them out of the

hospital. Case managers will ensure patients have the folder in their discharge paperwork and provide them resources if more symptom tracking pages are needed.

Step 6: Evaluate

After the folders have been given to patients and they are discharged from the hospital, the case managers will follow up with them as needed to see how they are doing, if they have any questions, and how they feel the folder is working out for them and managing their symptoms. Patients will be monitored through the EMR for readmissions or deaths related to CHF, and data will be generated on how this approach has helped reduce hospital readmissions, costs, and deaths related to CHF.

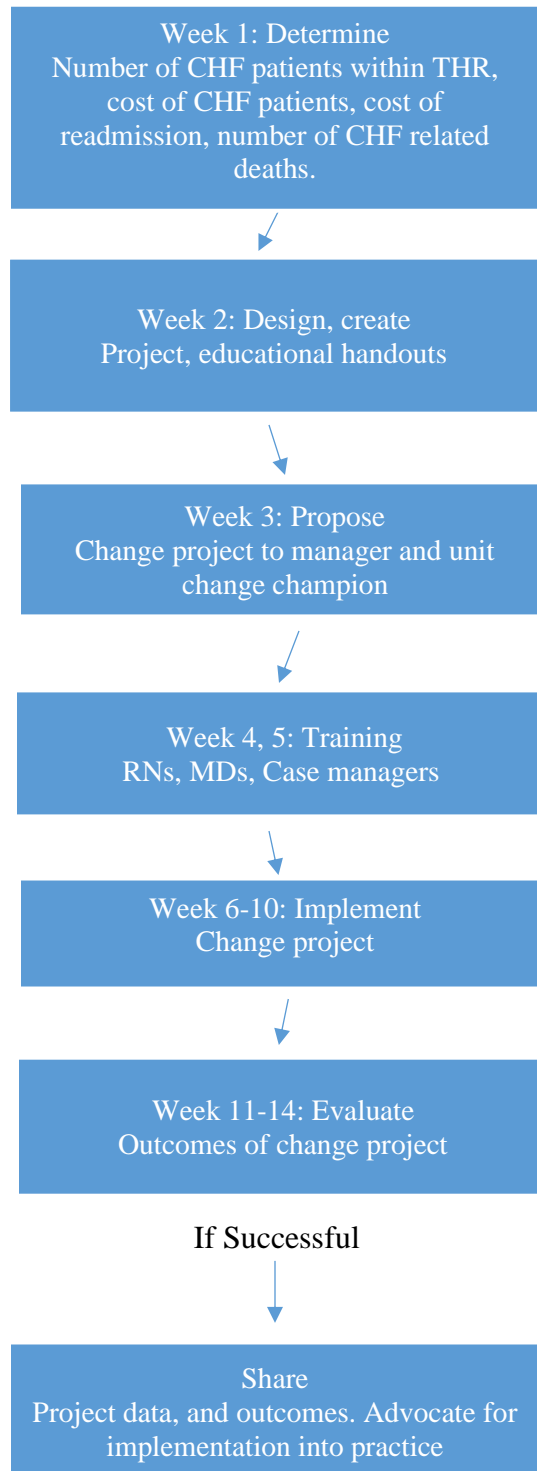
Step 7: Share

If the project is successful and there is data supporting that this multidisciplinary educational approach effectively reduces hospital readmissions, cost, and deaths related to CHF the data would be shared and published. Advocating for this to be permanently placed in practice would also be an important final step in the project.

5. Timetable/Flowchart

During the first semester, a PICOT question was developed related to CHF. The PICOT question related to how a multidisciplinary approach reduced CHF related hospital admission within 30 days. Throughout the first semester, articles were gathered for evidence related to the topic and literature reviews were conducted. The following semester comprised of putting all the evidence together to support the claim that a multidisciplinary approach was effective in reducing CHF related hospital readmissions, costs, and death. During my final semester and after discussing with faculty, it was decided that an Evidence-Based Benchmark study on why it is crucial that a multidisciplinary educational approach be developed to present to faculty to reduce

CHF related readmissions. The timeline for the proposed Benchmark Project is below in flowchart format.



6. Data Collection Methods

The data needed to reflect outcomes to determine if the change were successful would be if there was a significant reduction in hospital readmission rates, costs, and death in CHF patients. These data would be gathered by assessing the total number of patients in the study and identifying the percentage of the patients in which hospital readmission rate, and death was reduced over a 30-day period. This data would be compared with the control group in which these patients would receive the current hospital interventions in place.

7. Discussion of Evaluation

To evaluate the process of change, the percentage of patient's receiving DMPs should be higher in reduction of readmission rates and death compared to the control group. There is not an official evaluation of this benchmark study at this time. Positive feedback has been provided from the unit manager on the evidence found to promote the proposed project into practice. If the change project cannot be enacted for some reason, another step to take within the organization to facilitate positive impacts on this topic would be to provide an educational course on the research found. By providing this information to nurses, doctors, and administrators, it could help get the ball rolling to implement change in the future.

8. Costs/Benefits

The estimated costs of this project were analyzed based on staff members, supplies, and food. Supplies for the project (paper, pens, folders, certificates) needed for the one-day educational training class estimated an average of \$400.00. Breakfast and lunch were estimated to be \$300.00. The registered nurses and case managers hourly salary is averaged at \$52.00/hr,

training would consist of 10 RNs, and 2 case managers for 8 hours to equal \$4,992. Two cardiologists would be present, with an average salary of \$150/hr for an 8-hour training day equals \$2,400. The cost for 1,000 CHF educational folders to be printed equals \$300.00. The project total cost is estimated at \$8,392.

The benefit of this project outweighs the cost greatly. This project would reduce CHF related readmissions, costs on the hospital and deaths. Annually, CHF related readmissions nationwide cost hospitals \$33 billion. Implementing this project would alleviate the burden CHF patients have on the hospital system and alleviate overall costs.

Conclusions/ Recommendations

Patients diagnosed with congestive heart failure will only continue to increase as the years go on. With the expanding population, it is crucial proper educational interventions are in place to not only improve hospital outcomes, but patient outcomes as well. Overall, disease management programs and transitional care services are effective in reducing hospital readmission rates, death, and cost.

The goal of the proposed change project is to reduce the hospital readmission rates, death rates, cost, and improve quality of life in CHF patients. By utilizing EBP and having a well-rounded team, the hospital and patient population could greatly benefit from the proposed change. It is my hope that the evidence found will be applied in practice, studied, and made permanent based on evidence findings that it is successful.

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