

Health Promotion Project

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Heart Failure Health Promotion

Definition and description of the problem

Heart failure (HF) is a condition that develops gradually over time, and is a serious issue in persons 65 years of age and older. Approximately 5.7 million individuals in the United States (U.S.) have heart failure, and this number is expected to surge as “baby boomers” age (Centers for Disease Control and Prevention (CDC), 2012; MedlinePlus, 2012). The condition is not only a burden for the patient but also for the economy. Heart failure contributes to the rising cost of healthcare and makes up the majority of Medicare expenditures. It was estimated in 2009, that Medicare spent approximately 34.4 million dollars yearly in the treatment of HF (Centers for Disease Control and Prevention (CDC), 2012).

HF is an ever-changing condition especially in patients who do not understand its detrimental effects. By the time the condition is discovered, damage to the heart has occurred. Even in milder forms of HF, the condition is dangerous and difficult to manage. It brings an array of symptoms and conditions such as peripheral edema, shortness of breath, fatigue, difficulty sleeping, enlargement of the heart, and pulmonary edema (Mayo Clinic, 2011). This condition can even lead to a patient’s demise. “About half of people who have heart failure die within 5 years of diagnosis” (CDC, 2012). Patients suffering with heart failure face frequent hospitalizations due to poor disease management. Elderly patients are at greater risk for exacerbation due to the aging process, decreased understanding regarding the disease process, inadequate support system, and ineffective management skills.

Heart failure management can be difficult partly due to noncompliance, which relates to lack of education of disease management and/or slow transitioning through the stages of change.

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Nonconformity to lifestyle and medication recommendation is widely seen in HF patients.

Patients must play an active role in their plan of care in order to prevent exacerbation and improve quality of life.

Design of the project

Elderly patients with heart failure were selected as a target group because this population is prone to rehospitalization and increased complications due to a lack of knowledge regarding heart failure and self-management skills. Eighty percent of re-hospitalizations occur in those over the age of sixty-five making HF the fifth leading reason for hospital readmission (Leibundgut, Pfisterer, & Brunner-La Rocca, 2007). In addition, HF is responsible for approximately 287,000 deaths a year (Heart Failure Society, 2012).

Patients with heart failure require support, frequent monitoring and education on diet, exercise, medication, complications, etc. in order to battle this ever-changing condition. Education has been found to play an essential role in improving heart failure outcomes especially at the time of discharge from an inpatient facility (Paul, 2008), but this is a stressful time for patients and they may not retain all information taught to them. Often patients require follow up education in the home because HF education/information can be vast and overwhelming. HF patients may require a multidisciplinary approach in order to learn self-management skills. Fonoro (2011), reported that the usage of a multidisciplinary disease management (DM) program (such as home health) in a “single-center study of high-risk HF patients, revealed a reduction of HF readmissions within 90 days by 56%, all readmissions by 29%, and overall cost of care by \$460 per patient”. Many individuals with heart failure are unaware of community resources such as home health, hospice, or in-hospital educational classes that they can utilize to learn self-care skills.

Description of implementation and delivery of program

As mentioned, education is one of the key elements in preventing complications and promoting self-management skills in individuals with heart failure. Elderly individuals can have special learning needs; therefore, having a diverse knowledge of teaching strategies and methods to promote individuals learning is important part of the learning/teaching process. When educating a group of elderly individuals and caregivers about heart failure, the information provided to them must be clear, concise, and simple. Even though many in the group have heard similar information before, this may be the first time they have heard the information outside of the inpatient setting the information may not have been internalized during that stressful time.

The teaching strategies that are appropriate for educating patients and caregivers are the active learning and lecture strategies. By using a combination of lecture and active learning strategies, it will allow individuals to intake information and apply it in scenarios and/or discuss the information among each other, promoting an enhanced sense of understanding (Moravec, Williams, Aguilar-Roca, O'Dowd, 2010; The Teaching Center, 2009). The lecture strategy is considered the oldest teaching method, dating back to the 14th century. This form of teaching allows the instructor to present information to a group in an organized manner. Information regarding heart failure can be overwhelming for both the instructor and learner. By having a systematic method to present information to learners, it can prevent them from becoming dazed and keep the instructor focused. Even though the lecture method is one of the oldest teaching methods, many continue to have difficulty mastering the task.

Charles Bonwell and James Eison encouraged the use of the active learning strategy in 1991 (Bonwell, and Eison, 1991). This strategy allows learners to interact with not only the

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instructor but also each other. This gives them the chance to share their concerns, ideas, and experiences as it relates to their condition and engage in scenarios on how to plan meals, safe exercise habits, etc. This form of instructing assist individuals in developing a better understanding of how to interpret the information provided to them and a greater knowledge of how to include it into their daily practice. In addition, this form of interaction gives them the opportunity to recognize that they are not the only ones battling heart failure.

The Transformative Learning Theory is an excellent theory to use when dealing with the elderly population. Jack Mezirow (Cooper, n.d.) first developed the Transformative Theory and others, such as Robert Boyd and Paulo Freire (Cooper, n.d.) expanded the theory. The theory assists individuals in reasoning for themselves. In addition, the theory encompasses the use of personal experiences, critical reflection, and discourse to encourage learning. How an individual learns is subjective in nature and can occur at different periods in their life. The Transformative Theory suggests that learning in an individual process, and arises more often when confronted by an unpleasant or emotional experience, which causes them to view their situation differently. It is important for individuals to understand the cause and effect of their actions, and be able to transform it into a learning experience. Once an individual critically reflects on their situation, learning transpires. When a patient with heart failure reaches this point, they are able to realize that their actions and behaviors play a crucial role in their health, leading to change.

The use of the Transformative Learning Theory, active learning, and lecture strategies will assist in guiding patients towards self-management of their disease state. In addition, they will help the clinician provide holistic care for their patients.

The advanced practice nurse (APN) collaborated with the founder and Clinical Director (CD) of a new and growing health care agency in Selma, Alabama regarding the issues she has

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encountered in the agency's HF patients. The CD stated that rehospitalization has been the major issue in these individuals, and felt that if these individuals had a better understanding about HF disease process and symptom control they would have a better outcome. The CD directed the APN to a retirement community director, which is a former Registered Nurse (RN) who agreed that the individuals in her community with HF needed more knowledge regarding their condition.

This health promotion project was instituted in recognition of the increase need for elderly educational on HF. A small group consisting of three individuals with a diagnosis of HF over the age of 65 and one caregiver agreed to meet for a one and half hour session at a community center in Selma, Alabama. The community center director identified the individuals in need of HF education. The individuals came to the session with hopes of gaining an insight on techniques that would better help him or her manage their condition. Each participant was given the following handouts: "HF Zone", "Hypertension Management", "Foods in High Sodium", "Daily Log Tool" and "Fact Sheet" regarding heart failure to review five to ten minutes before the session began. Then each individual was asked to express their pre-existing knowledge regarding heart failure and exacerbations and to express any questions they may have regarding the handouts. All participants had been sensitized to HF information prior to the session, either through a discharge planner, home health nurse, and/or through their private physician. The Advance Practice Nurse (APN) student based the group's educational needs on this discussion. Each member had a basic knowledge regarding HF disease process but continued to have some difficulty managing their symptoms, chiefly shortness of breath, fatigue, and edema. The topics discussed with the group were HF disease process, signs and symptoms to report, weight and blood pressure monitoring, low sodium diet, and how to read nutritional labels. The APN student

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explained to the group that the principal ways to decrease exacerbations of heart failure is to take ownership of their health by increasing their knowledge of the disease process, symptoms to report, and being aware of what they are putting in to their bodies such food and liquids contents and amounts. The initial topics discussed were basic statistics regarding HF and disease process as it relates to the common HF sign and symptoms. The individuals where astonished to learn that so many people in the U.S. suffered and die from HF. The definition and disease process of heart failure were presented to the group in a simple manner. The group was taught that heart failure is a progressive condition that causes weakening of the heart muscle; as a result, the heart is not able to pump enough blood to supply the needs of the body, which results in fatigue (Heart Failure Society, 2012). This causes fluid to build up in various parts of the body such as lungs (shortness of breath), around heart (chest pain), hands, legs and feet (swelling), leading to the term congestive heart failure (CHF). Signs and symptoms of exacerbation include increased weight, fatigue, edema, coughing, shortness of breath, etc.; these symptoms should be reported immediately to a healthcare provider.

The next topic that was reviewed was the importance of home monitoring: weights, blood pressure, and keeping daily log of these numbers. The group was taught to report a weight gain of two to three pounds within 24 hours to their physician and/or home health nurse to help decrease the chances of an exacerbation. Surprisingly, only one of the individuals actually kept a log of their weight; the rest depended on their memory. One participant admitted to not owning a scale and felt that monitoring his weight was a waste of time, because in the past he still went to the hospital even when he did monitor his weight.

The next topics that were discussed included the effects of sodium (salt) and fluid (water) on the body, and how to read a nutritional label (food), with sodium being the focus. The APN

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explained to the group that people with heart failure have to be particularly concerned with water retention. Sodium can cause the fluid from the body to go into the blood, increasing the blood volume that the heart has to pump, increasing the strain on the heart causing increase blood pressure. The rise in blood pressure and strain on the heart can be fatal in those with heart failure. This is the reason why it is important to maintain a daily weight and blood pressure log. Therefore, the group was educated on how to read food labels and foods high in sodium content. The caregiver in the group understood how to distinguish the amount of sodium in an item using the food labels. The group was taught to look at the serving size and serving per container on the nutrition label first. Then look at the information on total fat, saturated fat, and trans fat as well as cholesterol, sodium, carbohydrates, etc. These amounts are per serving size. The example given to the group was if the serving size of a can of pinto beans is one cup and the serving per container is 2.5, the can will feed two and a half people but the serving size for one person is one cup. In that one cup of pinto bean the consumer will receive 1.94 grams (g) of total fat, no cholesterol, 705.6 milligrams (mg) of sodium, 583.2 mg of potassium, 36.6 g of carbohydrates, etc. If the consumer eats only one-half of a cup of pinto beans then they will only consume half of the ingredients. The four individuals were asked to work together to distinguish how much sodium was in a can of corn versus a bag of frozen corn, then decide which item was best to include in their diet. With the assistance of the APN student, the group was able to state that frozen corn was better than canned corn. The APN student explained to the group that many processed foods such as potato chips, crackers, ketchup, mustard, packaged cereals, cheese, canned meats and vegetables contain large amounts of sodium. Instead of processed foods, it is better to consume fresh/frozen fruits and vegetables, whole grains, lean meats and low-fat dairy

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products. Again, it was stressed to the group the need to adhere to their prescribed diet and keep a daily dietary log.

The final topic that was discussed was the importance of medication compliance. Fifty percent of individuals with heart failure do not follow their prescribed medication regimen (Mujtaba, Masood, Saad, 2010), leading to exacerbation of symptoms and rehospitalization. At this time, the group was able to discuss their issues with their medication regimen. All individuals confessed to forgetting to take their medication at least one to two days out of the week for various reasons such as frequent dosing throughout the day, not remembering if they took their medication or not, and/or side effects such as increased urination during the day. The APN provided the group with strategies to assist them in taking medications as prescribed such as (1) taking fluid pills early in the morning to reduce frequent urination as the day progresses, (2) using a pillbox for medication dispensing (3) set an automatic timer or use a calendar to serve as a reminder to take their medications. This way one will know if they have taken the medication for that day and time. Once again, it was stressed to the group that following a prescribed medication regimen is another key factor in controlling HF symptoms.

Evaluation

Each member of the group found that the information present was beneficial. For the caregiver in the group it served as a refresher course. The group found the information on how to read a nutritional label most helpful, and states it's a skill they would include in their daily habits. The group wanted to learn more regarding the function of the heart of a person with heart failure.

As a presenter, I desired more time to discuss other information and handouts given to the group. I also wished I had the ability to show the group two short videos regarding the normal

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function of the heart versus its action in a person with heart failure, causes of heart failure, and symptoms, but due to lack of internet service, I did not show the videos. I felt that if the group had a chance to view the videos it would have helped them gain a better understanding about the pathophysiology of heart failure.

In conducting this project, it was found that patients diagnosed with heart failure understood the material presented, but did not follow a heart failure appropriate lifestyle for various reason such lack of caregiver support, poor outcome from previous attempts, decreased motivation, etc. It was fulfilling to provide these individuals with disease management education. Although many factors play a role in patient rehospitalization rates, education remains the cornerstone in helping those with heart failure to be successful.

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