Evaluating the Efficacy of Focused Nurse Practitioner Visits on Improving Heart Failure Related Outcomes Among Participants Enrolled in the PACE Program: A Quality Improvement Project

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PROBLEM STATEMENT

- Heart failure (HF) is a chronic, complex condition, often affecting the vulnerable population of older adults in our society (Athilingham, Clochesy, & Labrador, 2018).
- HF costs the United States (US) upwards of $31 billion every year, including the cost of health care services, medications for treatment of HF, and missed days of work (Bryant & Himawan, 2019).
- The morbidity, mortality, incidence, and prevalence of HF continue to rise despite advances in technology and HF care (HIFSA, 2019).
- HF symptom management is the cornerstone to improving patient outcomes (Athilingham, Clochesy, & Labrador, 2018).
- Rehospitalization rates due to HF related sequelae are still high.
- Symptom management in HF patient remains an ongoing issue.
- A standardized system of physician visits, education, and utilizing focused Nurse Practitioner (NP) visits to enhance patient engagement, and thus improve self-care management of HF, has the capability to improve HF related outcomes in participants in the PACE program.

PROJECT PURPOSE

- The purpose of this project is to improve outcome measures among HF patients in the PACE program using focused NP visits.
- The project aims to improve participant knowledge on HF, improve quality of life, and decrease HF symptom burden for each participant.
- Does identification of goals of care, heart failure education, and symptom management during focused NP visits improve heart failure knowledge, increase quality of life, and decrease symptom burden in heart failure patients enrolled in the PACE program?

MODEL & NURSING THEORY

- The project was based on the Information, Motivation, Behavioral skills (IMB) theoretical model with patient engagement as a key mediator to achieve improved self-care management of HF.

METHODS

Participants & Setting
- Convenience Sample
- HF patients enrolled in the PACE program in Pinellas County, Florida

Instruments/Tools
- Table 1 Outcome Measures and Instruments. Table 1 provides a description of the measures for the primary and secondary outcomes, exploratory outcomes, and covariates.

<table>
<thead>
<tr>
<th>Type of Outcome</th>
<th>Name of the Measure</th>
<th>Type of Measure</th>
<th>Sensitivity</th>
<th>Specificity</th>
<th>Accuracy</th>
<th>Cronbach’s Alpha</th>
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</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>AHFKT</td>
<td>Knowledge</td>
<td>0.84</td>
<td>-</td>
<td>0.82</td>
<td>0.84</td>
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<tr>
<td>Quality of Life</td>
<td>KCCQ</td>
<td>Symptom</td>
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<td>-</td>
<td>0.82</td>
<td>0.66</td>
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<tr>
<td>Self-Care and Symptom Burden</td>
<td>SCHFI</td>
<td>Symptom</td>
<td>0.84</td>
<td>-</td>
<td>0.80</td>
<td>0.84</td>
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</table>

RESULTS

- The results for the AHFKT were statistically significant (p = .037) indicating the education provided was effective.
- The self-efficacy and knowledge portion of the KCCQ was statistically significant result (p = .047) indicating the education and focused NP visits increased participant knowledge and ability to effectively manage their HF.
- In evaluation of the symptom severity questions, participants were more self-aware of their HF symptoms at the second meeting after the HF education, thus providing responses to the KCCQ showed an inverse relationship.
- There were no significant changes in any of the self-care domains in the SCHFI.

DISCUSSION

- The result of the AHFKT surmises the focused NP visits combined with the education provided was effective which is supported by the results from the KCCQ on knowledge and self-efficacy.
- Interestingly, at the onset of the project, the majority of the participants did not know the major symptoms of HF to monitor, nor did they understand the lifestyle changes necessary, or the self-care steps required, to control their HF symptoms.
- Another follow-up visit with additional completion of the questionnaires would likely result in clinically significant changes in the major domains evaluated in the KCCQ and SCHFI.

IMPLICATIONS FOR ADVANCED PRACTICE NURSING

- The clinical implication for this conclusion supports the evidence-based education booklet as an effective tool in the management of HF when combined with focused NP visits.

SUSTAINABILITY

- The evidence-based education booklet developed for this project has been adopted and will be used for all HF patients.
- The NP visits showed improved outcomes and would be beneficial to HF patients ongoing.

LIMITATIONS

- The Covid-19 pandemic was a major limitation for this project.
- The small sample size, due to Covid-19, was also a significant limitation.
- Participant engagement was a limitation for this project as some patients did not know or agree that they had HF.

REFERENCES