

**Title:**

A Nurse-Led Heart Failure Education Program to Improve Knowledge and Self-Care and Reduce 30-Day Readmission

**Martha Sissay Awoke, MSN**

*Department Case Management, Medstar Georgetown University Hospital, Washington, DC, DC, USA*

Diana Lyn Baptiste, DNP, MSN

*Department of Acute and Chronic Care, Johns Hopkins University School of Nursing, Baltimore, MD, USA*

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**Session Title:**

Evidence-Based Practice Poster Session 3

**Slot (superslotted):**

EBP PST 3: Sunday, 30 July 2017: 9:45 AM-10:15 AM

**Slot (superslotted):**

EBP PST 3: Sunday, 30 July 2017: 12:00 PM-1:15 PM

**Slot (superslotted):**

EBP PST 3: Sunday, 30 July 2017: 2:00 PM-2:30 PM

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**Keywords:**

Heart Failure, Knowledge and Self-care

**References:**

Baptiste, D. Davidson, P. M., Groff Paris, L., Becker, K., Magloire, T., & Taylor, L. (2016) Feasibility study of a nurse-led heart failure education program. *Contemporary Nurse*. 20:1-12. [Epub ahead of print] doi:10.1080/10376178.2016.1229577

Dennison, R. C., McEntee, L. M., Samuel, L., Johnson J. B., Rotman S., Kielty A., Russell D. S. (2011). Adequate health literacy is associated with higher heart failure knowledge and self-care confidence in hospitalized patients. *26(5)*, 359-367. doi:doiDharmarajan, K., Hsieh, F. -, Lin, Z., Ross, J. S., Kim, N., Barreto-Filho, J., . . . Krumholz, H. M. (2012). : *10.1097/JCN.0b013e3181f16f88*

Liou, H. L., Chen, H. I., Hsu, S. C., Lee, S. C., Chang, C. J., & Wu, M. J. (2015). The effects of a self-care program on patients with heart failure. *Journal of the Chinese Medical Association : JCMA*, doi:S172-4901(15)00149-5 [pii]

Tsai, P., Wang, R., Lee, C., Tsai, L., & Chen, H. (2015). Determinants of self-care decision-making in hospitalised patients with heart failure. *Journal of Clinical Nursing*, 24(7), 1101-1111 11p. doi:10.1111/jocn.12722

**Abstract Summary:**

Standardized heart failure education programs focused on increasing knowledge and self-care behaviors have been known to improve symptom management. In this presentation, we will discuss the implementation of a nurse-led education program that evaluated knowledge, self-care, and readmissions for individuals living with heart failure.

**Learning Activity:**

LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE
1. By the end of this session, the learner will be recognize 3 concepts of self-care behaviors related to heart failure.	1. Self-care of patients with HF is described as one’s naturalistic decision-making process that includes behaviors and activities to manage a chronic condition, maintain life and overall well-being. Common daily self-care activities for persons with HF are identified as self-weight measurement, fluid monitoring, and adherence with medication regimen, following a low-sodium diet, exercise and keeping regular doctor or clinic visits. Common behaviors associated with poor self-care include skipped medications, dietary indiscretions, lack of recognition of symptoms and symptom exacerbations such as shortness of breath, increased fluid volume, and peripheral edema Frequent symptom exacerbation, disease progression, and hospital readmissions are often associated with poor
2. By the end of this session the learner will describe three key concepts related to knowledge of heart failure.	2. Adequate knowledge about heart failure is an important factor for patients to recognize symptoms, understand disease process, and seek appropriate advice.

<p>3. By the end of this session the learner will recognize two evidence-based instruments that can be used to quantify self-care and knowledge of heart failure.</p>	<p>3. The Self-care Heart Failure Index is a 22 item questionnaire that is divided into 3 subscales: self-care maintenance, self-care management, and self-care confidence. Self-care maintenance measures patients' ability to maintain health by adhering to treatment advice and performing tasks such as daily weight, medication adherence and following a low salt diet. Self-care management measures patient's ability to recognize symptoms and perform tasks to manage symptoms as they arise. Self-care confidence measures, patients perceived confidence in recognizing and managing symptoms to maintain health. The Dutch Heart Failure Knowledge Score is a 15 item multiple choice questionnaire that measures patients understanding and knowledge level about diet, activity, medication adherence, fluid restriction, and daily weight monitoring.</p>
<p>4. By the end of this session the learner will identify 3 factors that contribute to readmission.</p>	<p>4. Various reasons contribute to hospital readmission in heart failure patients. Research shows that patient's lack of understanding about disease process, inadequate level of symptom recognition, inability to make appropriate decision to alleviate symptoms and the absence of timely follow-up once patient has transitioned from hospital to home contribute to the increased readmission rate for heart failure patients Hence, it is important to provide adequate and efficient patient education by nurses during inpatient hospitalization, incorporated with a scheduled follow-up visit within seven days post discharge is essential to promote self-care and potentially reduce 30-day readmission.</p>

**Abstract Text:**

**Purpose/Objectives:**

Heart failure is a burdensome condition that affects more than 6 million Americans and an estimated 23 million people worldwide. Individuals living with heart often experience breathless, edema, and fatigue leading to frequent hospital admission. The purpose of this quality improvement program was to standardize a nurse-led heart failure patient education and evaluate its impact on knowledge, self-care behaviors, and all cause 30-day hospital readmission at a large urban academic medical center.

## **Methods**

We implemented an evidence-based standardized heart failure patient education program with telephone follow-up at 7, 30 and 90 days post-discharge. A convenience sample of (N=19) Individuals who were hospitalized with diagnosis of heart failure completed two questionnaires: 1) the Dutch Heart Failure Knowledge Scale (DHFKS) and, 2) the Self-care Heart Failure Index (SCHFI).

## **Results:**

Descriptive statistics were analyzed using SPSS® version 23 to provide demographic characteristics for the sample. The mean age for the sample is 68, with ranging from 54-90, almost evenly distributed gender, and most of the sample size reported they were unemployed, retired, or disabled. Nine participants (47%) had an ejection fraction less 40% and 47% had an NYHA IV classification. Among (n=19) participants, baseline knowledge scores ranged from 9-15. The mean score was 12.21 SD=1.548, which is comparable to scores reported in previous studies which were mean 11.4 and 12.6, respectively.

Self-care maintenance shows (n=4) participants scoring between 40-50% and another 4 patients scoring between 70-80%. Six participants scored between 50-70%, 1 participant scored 100% and 2 patients each scored between 20-40% and 80-90%. Self-care management score describes a normal distribution curve in which the majority of the responders were under the bell curve. Answers ranged from “I did not recognize symptoms” to “I recognize the symptom of heart failure quickly.” Of the (n=19) participants, 11 stated that they “did not recognize HF symptoms”. However, when asked about how likely they were to try some of the remedies (reduce fluid intake, reduce salt intake, call your doctor or nurse) if they experienced trouble breathing or ankle swelling, 13 patients stated they are “very likely” to try one of the remedies.

## **Conclusion:**

Implications from this study suggest the importance of developing education programs that are focused on improving knowledge, self-care maintenance, self-care management and self-care confidence for heart failure patients. Those who score lower self-care behavior scores after the intervention may benefit from additional education, resources, and support. Nurses are uniquely qualified to implement such programs that can improve health outcomes and need to accommodate evidence-based recommendations to global practice settings.