Heart failure is the leading cause of hospital readmissions in the United States. Globally, approximately 23 million people are living with heart failure. Nationally, close to 5.8 million people are affected and greater than 550,000 people are diagnosed with heart failure annually. Approximately $32 billion dollars is spent to treat individuals with heart failure. The American Heart Association (AHA) and American College of Cardiology (ACC) provide specific recommendations for the treatment of individuals with heart failure.

### Purpose
To evaluate the impact of a nurse-led heart failure patient education program on knowledge, self-care behaviors, and all-cause 30-day hospital readmissions.

### Methods
We employed a quasi-experimental design, enrolling (N=29) participants. A nurse-led heart failure education program was implemented using two validated instruments to measure knowledge and self-care behaviors for patients admitted to the hospital with a primary and secondary diagnosis of heart failure. This study was conducted over a five-month period on two inpatient cardiovascular units at an urban academic medical center in the northeastern, United States.

### Measures
1. **Knowledge from baseline to 7 and 90 days post discharge**
2. **Self-care behaviors from baseline to 7 and 30 days post discharge**
3. **30-day readmission rates in the pre and post intervention periods**
4. **Nurses’ use of teach-back method**

### Data Collection instruments:
1. **Dutch Heart Failure Knowledge Scale**: measured patient’s general knowledge about heart failure
2. **Self-care Heart Failure Index**: measured self-care maintenance, management and confidence
3. **Conviction and Confidence Scale**: to evaluate nurses’ beliefs and confidence with using teach-back method

### Interventions
- **Teach-back Method instruction provided to nurses prior to implementing patient education**
- **Heart failure education recommended by the AHA and ACC encompassing:**
  - Medication adherence
  - Daily weight monitoring
  - Diet and fluid restriction
  - Activity
  - Smoking cessation
  - Decreased alcohol consumption
  - Symptom recognition
  - Educate patients to contact doctor or nurse for advise when symptoms occur

### Results
A) There was a statistically significant improvement in **Dutch Heart Failure Knowledge** scores from baseline to 7-days and from baseline to 90-days after hospital discharge.

B) A statistically significant improvement in **self care maintenance** scores from baseline to 7 and 30 days after hospital discharge. There was a statistically significance improvement in **self care management** scores after 30 days.

C) There was no statistically significant difference in 30-day readmission from the pre and post intervention periods.

D) The majority of the (N=23) nurses agreed that it is important to use **Teach-back Method**, with mean score of 9.4 of 10 being the highest. Nurses also stated they felt confident in their ability to use teach back method with a mean of 7.5. These findings show it is important to continue encouraging nurses to use teach back method to improve confidence.

### Conclusion
Standardized one-to-one nurse-led heart failure education program improved patient’s knowledge and self-care maintenance, management, and confidence. In addition, it is recommended that a timely follow-up schedule should be provided to patient prior to hospital discharge. Furthermore, nurses are encouraged to use evidence-based teaching methods to enhance patient’s comprehension of education.

### Clinical Implications
It is recommended that hospitals implement nurse-led heart failure education programs that encompass the key factors identified by the AHA and ACC guidelines. Nurses are uniquely qualified to implement such programs that can improve health outcomes and accommodate evidence-based recommendations to practice settings.

### References