

# A 12-week evidence-based education project to increase nurse's knowledge of heart failure self-management

Medina Barone, MSN, ANP-BC, Valerie T. Cotter, DNP, AGPCNP-BC, FAANP, FAAN & Arlene Travis, DNP, ANP-BC, CHC, CHFN-K



JOHNS HOPKINS  
SCHOOL of NURSING

## Background & Purpose

- The Hospital Readmission Reduction Program authorized CMS to reduce payments to hospitals with high heart failure (HF) readmission rates .
- Despite such penalties, HF remains a leading cause of hospital readmissions in the US.
- There is support in the literature that nurses lack the basic knowledge of HF to deliver effective patient education in an overall effort to reduce readmissions.

## Project Aims

The purpose of this 12-week Quality Improvement (QI) project was to increase nurses' knowledge of HF self-management (HFSM) with an online educational intervention. The project's aims were to:

1. Determine the effect of the HF self-management (HFSM) educational program on nurse knowledge.
2. Assess participants' self-confidence and satisfaction with learning from the program.

## Intervention

The selected evidence-based intervention was a self-created, online educational program that was comprised of 4 video-based learning modules that focused on HFSM. Each module was fifteen minutes long, which the same participants completed over a 2-week period.

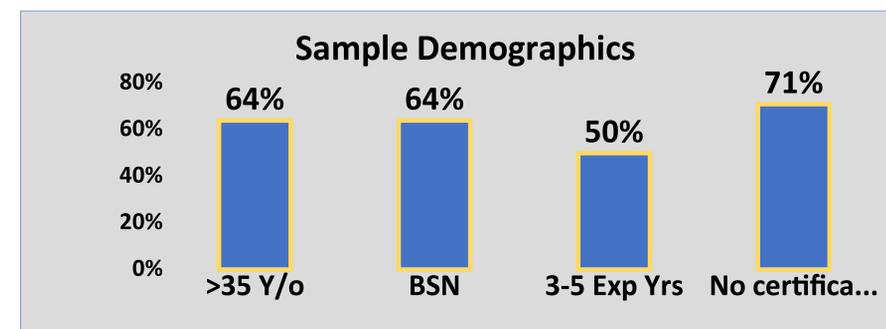
## Methods

- **Design:** Pre/Post-test
- **Setting:** Medicine inpatient setting
- **Sample:** RN providers
- **Measures:** nurse knowledge of HF education principles survey (NKHFEPS), National League of Nursing (2003) satisfaction and self-confidence in learning (SCL) survey
- **Analysis:** Paired samples t-test (evaluate NKHFEP); Descriptive and frequency statistics (evaluate SCL)

## Results: Sample

There was a total of **14** participants in the pre-test and 14 in the posttest. More than 64.3% of participants were 35 years or younger, 64.3% had a bachelor's in nursing degree, 50% had 3-5 years of nursing experience and 71.4% did not have any certification (See Figure 1).

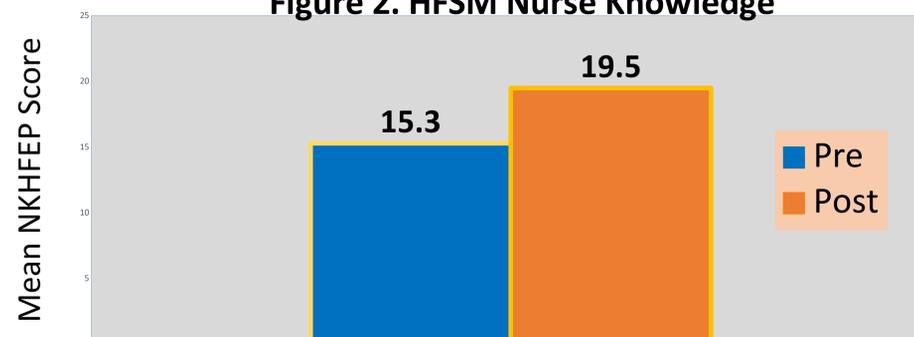
Figure 1



## Aim 1: RN Knowledge

Knowledge of HFSM improved from **15.3** ( $SD=1.64$ ) pretest to **19.5** ( $SD=0.52$ ) post-test ( $p<0.01$  level ( $t=13$ ,  $df=8.54$ ), which is significant. The overall group mean scores improved by **4.2-points** from pre-test to post-test, *representing a 21% improvement in nurses' average knowledge scores post-intervention* (See Figure 2).

Figure 2. HFSM Nurse Knowledge



## Aim 2: RN Satisfaction & Self-Confidence

The SCL survey was completed by **5** out of the **14** participants post-intervention.

SCL showed nurses were **most satisfied** with the course's teaching materials ( $M=5.5$ ,  $SD=0.5$ ) and had **confidence** in the resources provided for content mastery ( $M=4.5$ ;  $SD=0.5$ ).

Nurses were the **least confident** in knowing where to get help when not understanding concepts covered in the learning video ( $M=3.83$ ,  $SD=0.69$ ).

## Conclusion

Findings suggest an educational video led to a statistically significant rise in nurse knowledge of HFSM pre- to post-intervention. Thus, nurse leaders must provide nurses with continuous nursing education in this hospital to enhance the knowledge necessary to deliver high-quality education to patients.

## References

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