

# A Multimodal Telehealth Heart Failure Patient Behavior Change Intervention to Promote Self-Care and Reduce Readmissions

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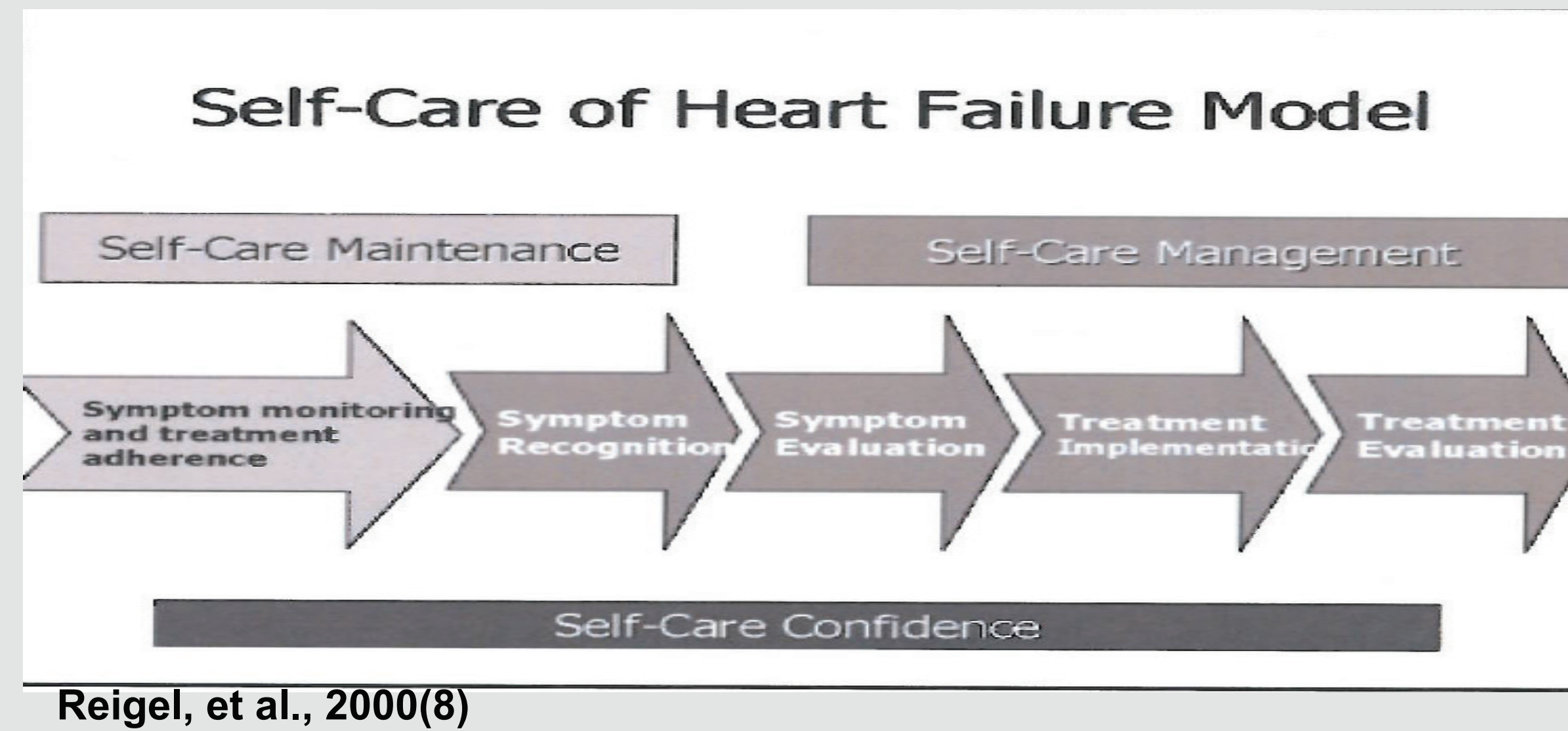
## Purpose

- The primary purpose is to determine if older adult Heart Failure (HF) patients discharged from the hospital will experience a reduction in readmissions when participating in a multimodal telehealth (TH) Motivational Interviewing (MI) HF self-care educational intervention.
- The secondary purpose is to determine if the TH MI HF patients experience a reduction in readmissions when compared to:
  - ❑ older adult HF patients who have a MI HF self-care educational intervention.
  - ❑ older adult HF patients who have a health promotion educational intervention.

## Background

- HF affects more than 5.7 million people in the US causing 300,000 deaths and costing \$37.2 billion annually.(1)
- HF hospitalizations are currently estimated at 1 million annually in the US, and 30-day readmission rates are at 27% which is the highest among all medical conditions.(2)
- HF readmission rates are now the target of publicly reported performance measures, national improvement initiatives, & government incentives.(3)
- Patient self-care plays a critical role in HF management including monitoring weight, restricting salt, exercising, adhering to medications, & recognizing S/S of decompensation.(4)
- The *Self-Care of Heart Failure Model* illustrates that self-care management requires the ability to recognize symptoms, evaluate those symptoms, implement an appropriate self-help remedy, & evaluate the effectiveness of that treatment's effect.(5)
- TH offers additional patient data that may detect earlier HF decompensation and allow prompt intervention.(6)
- MI is an evidence-based treatment in which asking, listening, & informing are used to help patients talk about, commit to, & make health behavior change(s).(7)

## Theoretical Framework



## Research Questions

- **Primary:**
  - Is there a difference between older adult HF patients participating in a *TH MI HF self-care educational intervention* and those patients who participate in a *non-TH MI HF self-care educational intervention* &/or those patients who participate in a *non-TH, non-MI health promotion educational intervention* within a 4-month time period regarding:
    - Readmission rates?
    - Emergency room visits?
    - Clinical measurements (BP, HR, weight)?
- **Secondary:**
  - Is there a difference between these three groups with patterns of monitoring and resource utilization (readmissions, ER visits) within a 4-month time period regarding:
    - Incidence of depression?
    - Health literacy?
  - What is the feasibility of older adult HF patients using TH devices to monitor their BP, HR, and weight?
  - What are older adult HF patient perceptions regarding HF self-care and TH?

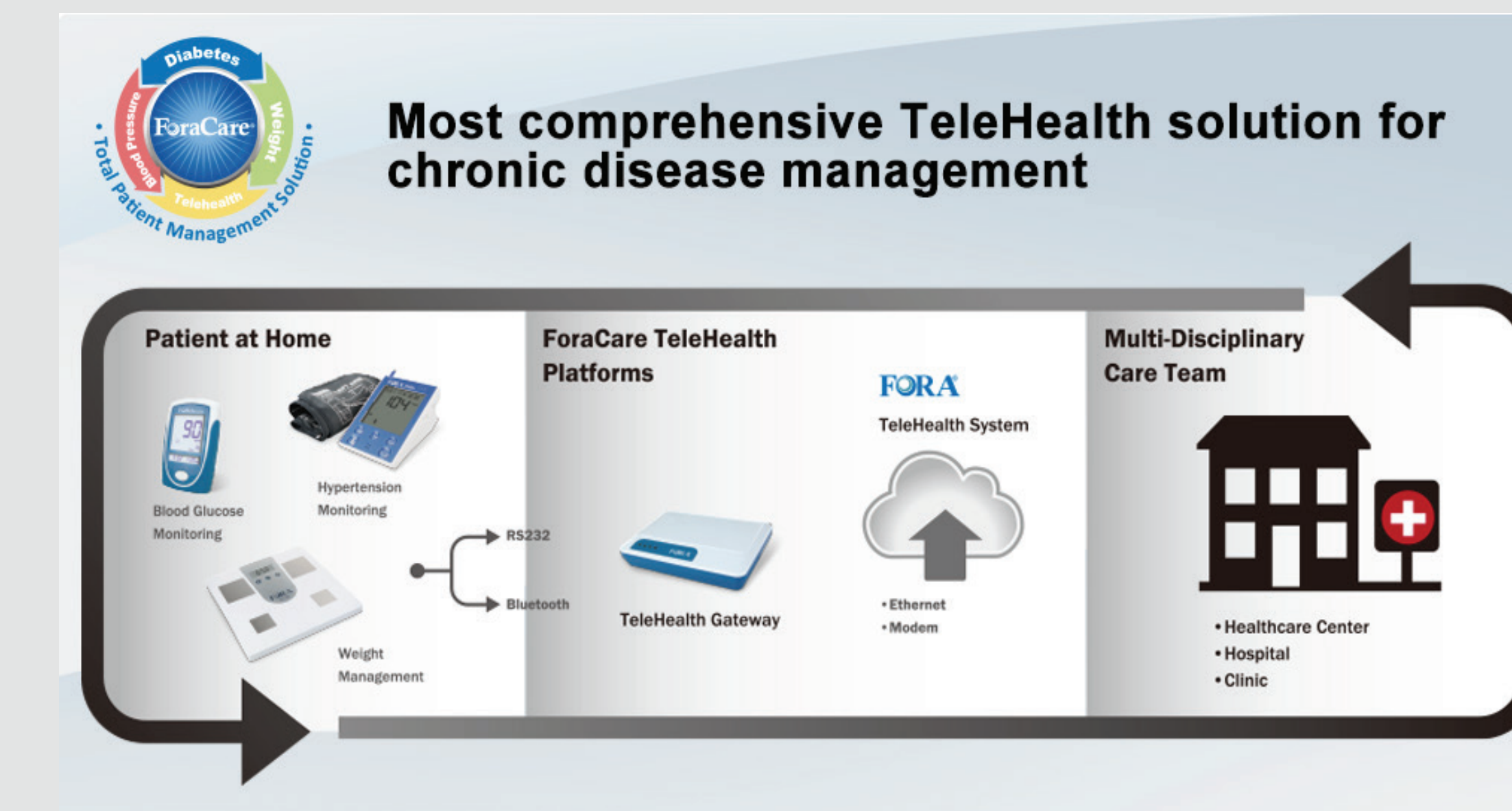
- **Design:**
  - Pre-Test, post-test mixed methods study
  - 1 experimental & 2 attentional control groups
  - Propensity score matching-10 subjects/group
- **Instruments:/Measurements:**
  - Short Portable Mental Status Questionnaire
  - Health History Questionnaire
  - Self-Care Heart Failure Index(9)
  - Telemedicine Perception Questionnaire(10)
  - Geriatric Depression Scale(11)
  - Test of Functional Health Literacy(12)
  - Motivational Interviewing Tool(7)
  - ForACare BP, HR, & Weight Monitors



- **Educational Tools:**
  - *Palomar Health Living Successfully HF Booklet*
  - Health Promotion Handouts
- **Data Analysis:**
  - Descriptive Statistics
  - 3 x 2 ANOVA
  - Content Analysis

## Methods

- **Sample:** 30 male and female HF patients
  - **Inclusion Criteria:**
    - Primary or secondary diagnosis of HF
    - 60 years or older
    - Fluent in English
    - Telephone landline in home
    - SPMSQ score 2 or less
  - **Exclusion Criteria:**
    - Renal failure requiring dialysis
    - Severe visual or dexterity impairment
    - Inability to provide self-care
- **Setting:** Hospital & Home Health



## Nursing Implications

- Providers must utilize various interactive teaching strategies to empower HF patients with the knowledge and skills needed for effective self-care management.
- The epidemic proportion of HF necessitates more innovative, creative approaches such as TH to facilitate patient self-care knowledge and skills resulting in reduction of readmissions.
- Given the proliferation of technology in all aspects of healthcare, a foundational knowledge base and skill set in health care informatics is essential for all providers in order to successfully practice.

References Available on Handout