TITLE: HEALTH BEHAVIOR-RELATED OUTCOMES WITH DIAPHRAGMATIC BREATHING RETRAINING IN HEART FAILURE PATIENTS

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ABSTRACT
Description: In heart failure (HF) patients, dyspnea is a key contributor to and the strongest predictor for hospital readmission. In addition, dyspnea and fatigue are the primary reasons for decreased physical activity (PA) which, in turn, leads to activity avoidance, subsequent muscle de-conditioning, and further increases of dyspnea even at lower levels of activity. Depression, because of its moderate relationship with dyspnea, can further diminish PA and increase disability in activities of daily living (ADLs). Strategies to minimize or mitigate dyspnea and to boost motivation are imperative for improving adherence to PA, and, in turn, improving fatigue, muscle strength, PA itself, functional status, disability in ADLs including basic ADLs and instrumental ADLs (IADLs), depression, and quality of life (QOL) in HF patients.

Eligibility: Using an experimental randomized controlled design, 50 participants over 19 years of age, with diagnosed with chronic HF, who experience dyspnea at rest or with activity and experience dyspnea that limits their activities, who have a telephone, and who reside in a rural area, will be recruited at the University of Nebraska Medical Center HF clinic. Both groups will receive the usual care from a HF specialist. The experimental group will receive information on a Diaphragmatic Breathing Retraining (DBR) intervention whereas the health promotion (attention control) group will receive general health information. To boost adherence to the intervention and to prevent attrition from the study, both groups will receive telephone calls from a research nurse for a total of 4 sessions (weeks 1, 2, 4 and 6).

Intervention: Diaphragmatic breathing retraining with a slow breathing pattern, a focus on decreasing dyspnea, and mediated by Self-efficacy for DBR provide an innovative approach to positively impact the spiraling effects of HF.

Evaluation and Follow-up: Data collection using standardized measures, will take place at baseline, post-intervention, and 3-month follow-up after completion of the 8-week intervention. The following concepts will be measured: dyspnea, fatigue, muscle strength, PA, functional status, disability in ADLs and IADLs, depression, co-morbidity, perceived barriers & self-efficacy for DBR, and quality of life. The proposed study will provide information about how a DBR intervention will help HF patients to improve outcomes through successful control of dyspnea and to be likely more engaging in health promoting activities.