Ethnicity Moderates the Relationship Between Perceived Social Support and Self-Care Confidence in Heart Failure Patients

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Objectives: The purpose of this secondary data analysis was to examine the relationship between perceived social support (PSS) and self-care confidence (SCC) in a sample of patients with heart failure (HF). We hypothesized that the relationship between PSS and SCC is moderated by ethnicity.

Background: African Americans are at the highest risk of developing HF compared to other ethnicities and are hospitalized seven to eight times more often than Caucasians. Poor overall self-care, low SCC and lower levels of PSS are factors related to increased risk for hospitalizations in HF. Previous investigators reported that SCC is a moderator of self-care ability in people with HF, however, little is known regarding the factors that may impact SCC in people with HF.

Methods: Patients with HF completed measures of PSS (Multidimensional Scale of Perceived Social Support) and SCC (Self-Care of Heart Failure Index; Self-Care Confidence Subscale). Patients included in this analysis were either African American or Caucasian. Moderation analysis was conducted using hierarchal linear regression. In the first step, PSS and ethnicity were entered separately as predictors of SCC. In the second step, the interaction term PSS*ethnicity was entered as a predictor. The interaction term was evaluated for a significant increase in R², which indicates presence of moderation.

± 11.5, 68% were male, and 54.7% were New York Heart Association class I or II. Results from moderation analysis yielded a significant interaction of PSS and ethnicity. In African American patients, there is a non-significant relationship between perceived social support and self-care confidence, \( b = -0.776, 95\% \text{ CI } [-0.049, 0.060], t = 0.212, p = 0.832 \). In Caucasian patients, there is a significant positive relationship between perceived social support and self-care confidence \( b = -0.224, 95\% \text{ CI } [0.046, 0.094], t = 5.65, p <.001 \).

Conclusions: Ethnicity may play an important role in PSS and SCC in patients with HF. Our results show there was no change in self-care confidence scores as levels of perceived social support increased in African American patients. Conversely, Caucasian patients demonstrated higher self-care confidence scores as level of perceived social support increase. Further research is needed to develop and test interventions that are tailored to the ethnicity and levels of social support in patients with HF.

Title:
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Keywords:
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Abstract Summary:
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Content Outline:
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- Introduction
  - Main Point#1 – Heart failure (HF) affects approximately 6.5 million people in the United States and is a chronic disease that leads to high healthcare costs and re-hospitalizations.
    - Re-hospitalization is often a result of inadequate self-care.
    - Poor overall self-care, low self-care confidence (SCC) and lower levels of perceived social support (PSS) are factors related to increased risk for hospitalizations in HF.
  - Main Point #2 – African Americans have the overall highest risk of developing HF and have a more progressive disease trajectory.
    - African Americans are hospitalized seven to eight times more often than Caucasians.
    - Ethnic differences related to HF exist not only in health outcomes, but also in HF self-care and social support.
  - Main Point #3 - Previous investigators reported that SCC is a moderator of self-care ability in people with HF, however, little is known regarding the factors that may impact SCC in people with HF.

- Methods
  - Measures
Patients with HF completed measures of PSS (Multidimensional Scale of Perceived Social Support) and SCC (Self-Care of Heart Failure Index; Self-Care Confidence Subscale).

- Patients included in this analysis were either African American or Caucasian.
  - Statistical analysis - Moderation analysis was conducted using hierarchal linear regression.

**Results**
- The mean age of the sample (N = 429) was 60.8 + 11.5, 68% were male, and 54.7% were New York Heart Association class I or II.
- Results from moderation analysis yielded a significant interaction of PSS and ethnicity.
  - In African American patients, there is a non-significant relationship between perceived social support and self-care confidence, \( b = -0.776 \), 95% CI \([-0.049, 0.060]\), \( t = 0.212 \), \( p = 0.832 \).
  - In Caucasian patients, there is a significant positive relationship between perceived social support and self-care confidence \( b = -0.224 \), 95% CI \([0.046, 0.094]\), \( t = 5.65 \), \( p <.001 \).

**Discussion/Conclusion**
- Ethnicity may play an important role in PSS and SCC in patients with HF.
- Our results show there was no change in self-care confidence scores as levels of perceived social support increased in African American patients.
- Conversely, Caucasian patients demonstrated higher self-care confidence scores as level of perceived social support increase. Further research is needed to develop and test interventions that are tailored to the ethnicity and levels of social support in patients with HF.

**References**

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**Author Summary:** Mrs. Cousin is currently a Ph.D. candidate at the University of South Florida College of Nursing. She is studying the role of contextual factors on cardiovascular disease self-care. Specifically, her upcoming dissertation will be examining the role of gratitude on self-care outcomes in African Americans with cardiovascular disease.
Author Summary: Dr. Andrew Bugajski is an Assistant Professor at the University of South Florida College of Nursing, where he researches COPD self-management. Specifically, he is interested in systematically examining which combinations of self-management behaviors are most efficacious to improving patient outcomes.

Author Summary: Dr. Buck’s research examines the influence of the interaction between older adults and their informal caregivers when self-managing chronic illness at home. Dr. Buck’s contributions to nursing have been acknowledged with multiple honors and awards as well as invitations to present on palliative care and chronic disease topics in national webinars and scientific sessions. She is also the recipient of the 2017 Mathy Mezey Excellence in Aging Award by the American Heart Association.

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