Social Support and Self Efficacy's Influence on Helplessness Following an Acute Myocardial Infarction

Benjamin A. Smallheer, PhD, RN, ACNP-BC, FNP-BC, CCRN, CNE
School of Nursing, Duke University, Durham, NC, USA

Purpose:

Acute myocardial infarction is associated with physical and psychosocial distress that have the potential for negatively affecting health outcomes and disease progression. Mortality in individuals following AMI is negatively impacted by the degree of psychological distress the individual experiences. A number of psychosocial factors, including learned helplessness, have been shown to have an impact across clinical populations. Little is known, however, about the nature of the relationship between social support and self-efficacy and the presence of learned helplessness following an AMI. What was once believed to be a learned response in animals has been shown to be relevant to health outcomes in humans. Learned helplessness has the potential of affecting recovery from medical conditions, including AMI. Psychosocial factors are believed to impact learned helplessness across clinical populations. Through the ability to influence both social support and self-efficacy, learned helplessness has the potential of affecting outcomes of patients following acute myocardial infarction (AMI). Currently, little is known about these relationships. The purpose of this research study was to examine the relationship between social support, self-efficacy, learned helplessness, and targeted demographic, clinical, and psychosocial factors following an AMI.

Methods:

Using a descriptive cross-sectional design, a convenience sample (N=75) was recruited from two comprehensive heart institutes located in the southeastern United States. Subjects were individuals who had a diagnosed AMI within the past 12 months. Standardized instruments and measures were used to evaluate learned helplessness, self-efficacy, and social support. Demographic and clinical data were also collected for analysis. Descriptive statistics and bivariate analysis was conducted for the study and clinical variables. Hierarchical multiple linear regression analysis was also conducted to explore the potential unique and combined effect of study variables.

Results:

A statistically significant, inverse relationship was found between social support and self-efficacy with learned helplessness suggesting that individuals who had higher self-reported levels of social support and self-efficacy also reported lower incidences of learned helplessness. Statistically significant correlations with learned helplessness were also noted with demographic factors of years of education, socioeconomic status, and having two previous AMIs. Hierarchical regression analysis suggested, after controlling for the influence of other study variables, self-efficacy alone continued to significantly contribute to the occurrence of learned helplessness in individuals following AMI.

Conclusion:

Based on the findings of this study, a clear benefit exists in ameliorating the presents of learned helplessness in AMI patients. With social support and self-efficacy representing a statistically significant and unique contribution to the occurrence of learned helplessness following an AMI, an area for practice change exists within these concepts. The current plan of care models emphasize lifestyle modifications and adherence to medication regimens while little attention is directed towards a patient's support structure and perceptions of having an influence on their own outcomes if unable to adhere to the strict guidelines set forth by the medical community.

The findings of this study help to further delineate factors contributing to the concept of learned helplessness, which continues to not be evaluated as a factor associated with clinical outcomes in patients who have experienced an AMI. Social support and self-efficacy are associated with learned helplessness in individuals following an AMI. Given that nursing interventions are able to target a patient's ability to do for themselves as well as identify means of support upon discharge, this research suggests the importance of these two concepts as impactful methods to improve outcomes for patients following an AMI. With the initial care of many AMI patient occurring in the hospital setting, these interventions are applicable to bedside nurses as well as advanced practice nurses in tertiary care settings, but also in primary care as patients transition into care of chronic illnesses. Attention can then be directed toward hospital discharge to support a patient to identifying an effective social support system along with a strategic and attainable recovery pathway that will help patients develop an empowerment plan to facilitate the needed self-efficacy as patients re-integrate into self-care. Individualizing a plan of care based on an individual's human experiences, relationships, environmental interactions, and human responses to previous situations carries the potential to be more effective (American Nurses Association, 2000; Condon, 2006). Nurses may be the first to recognize symptoms of poor self-efficacy and a lack of social support, therefore, mitigating the progression through intentional psychological care and possible referral to behavioral health professionals (Plummer, 2000).

Our results also support ongoing efforts to develop post-AMI treatment plans that take into account the psychosocial aspects of an individual's experience. Learned Optimism (Seligman, 2011) is a contrary concept to learned helplessness. Explored methods to shift the helpless individual towards a more empowered cognitive optimism is part of the concept of cognitive-behavioral therapy (McGuire-Snieckus, 2011). In developing post-AMI treatment plans, healthcare staff need to expand their focus beyond the physiologic and identify psychological points of intervention. Potential interventions that may be useful for pre-discharge implementation include: increasing positive cognition and self-affirmation, and using "as if" statements to envision their lives improved in a desired way (McGuire-Snieckus, 2011). By having a greater understanding of learned helplessness following an AMI, a timeline for interventions may be identified to help improve patient survival.

Title:

Social Support and Self Efficacy's Influence on Helplessness Following an Acute Myocardial Infarction

Applicable category:

Clinical

Keywords:

Learned Helplessness, Self-efficacy and Social Support

References:

Benjamin, E.J., Blaha, M.J., Chiuve, S. E., Cushman, M., Das, S. R., Deo, R., â€¦ & Muntner, P. (2017). Heart disease and stroke statistics--2017 update: a report from the American Heart Association. *Circulation*, *135*(10), e1-e458. https://doi.org/10.1161/CIR.0000000000000485

Chung, S. C., Gedeborg, R., Nicholas, O., James, S., Jeppsson, A., Wolfe, C., ... & Jernberg, T. (2014). Acute myocardial infarction: a comparison of short-term survival in national outcome registries in Sweden and the UK. *The Lancet*, *383*(9925), 1305-1312. https://doi.org/10.1016/S0140-6736(13)62070-X

Fraser, S. N., & Rodgers, W. M. (2012). The Influence of General and Exercise Specific Social Support on Self-Efficacy for Overcoming Barriers to Cardiac Rehabilitation. *Journal of Applied Social Psychology*, *42*(8), 1811-1829. doi:10.1111/j.1559-1816.2012.00919.x

Maeda, U., Shen, B. J., Schwarz, E. R., Farrell, K. A., & Mallon, S. (2013). Self-efficacy mediates the associations of social support and depression with treatment adherence in heart failure patients. *International journal of behavioral medicine*, *20*(1), 88-96. DOI 10.1007/s12529-011-9215-0

Reese, R. L., Freedland, K. E., Steinmeyer, B. C., Rich, M. W., Rackley, J. W., & Carney, R. M. (2011). Depression and rehospitalization following acute myocardial infarction. *Circulation: Cardiovascular Quality and Outcomes*, *4*(6), 626-633. Doi: 10.1161/CIRCOUTCOMES.111.961896

Rodgers, W. M., Murray, T. C., Selzler, A. M., & Norman, P. (2013). Development and impact of exercise self-efficacy types during and after cardiac rehabilitation. *Rehabilitation psychology*, *58*(2), 178. http://dx.doi.org/10.1037/a0032018Â

Sharp, P. B., & Salyer, J. (2012). Self-efficacy and barriers to healthy diet in cardiac rehabilitation participants and nonparticipants. *Journal of Cardiovascular Nursing*, *27*(3), 253-262. DOI: 10.1097/JCN.0b013e31821efdc2

Abstract Summary:

A number of psychosocial factors, including learned helplessness, have been shown to impact across clinical populations. Little is known, however, about the nature of the relationship between social support and self-efficacy and the presence of learned helplessness following an acute myocardial infarction.

Content Outline:

1. Introduction:
    1. Background & significance
        1. AMI
            1. Incidence
            2. Mortality
        2. Social support in AMI
        3. Self-efficacy in AMI
        4. Helplessness in AMI
    2. Objectives
        1. Identify relationship between social support, self-efficacy, & helplessness
        2. Social support and self-efficacy's impact on helplessness
        3. Consider future steps to decrease helplessness in AMI patients
2. Theory:
    1. Theory of learned helplessness
        1. Background
    2. Significance of this model in the AMI population
3. Methods:
    1. Design, sample, setting, tools, data collection, data analysis
    2. Multisite

3. Inclusion/exclusion
    4. Questionnaires used
4. Results:
    1. Subject stats
    2. Social support findings
    3. Self-efficacy findings
    4. Linear regression
    5. ANOVA
5. Discussion:
    1. How to impact social support
    2. How to impact self-efficacy
    3. Benefit of ameliorating the presence of helplessness in AMI patients
6. Conclusion:
    1. Social support and self-efficacy are correlated with helplessness in patients post AMI
    2. Attention placed at discharge in identifying social support system prior to discharge
    3. Help patients develop an empowerment plan to combat self-efficacy

First Primary Presenting Author

Primary Presenting Author

Benjamin A. Smallheer, PhD, RN, ACNP-BC, FNP-BC, CCRN, CNE
Duke University
School of Nursing
Assistant Professor
Durham NC
USA

Professional Experience: St. Vincent's Medical Center Jacksonville, Florida Registered Nurse I Medical/Surgical/Telemetry 1998-1999 St. Thomas West Hospital Nashville, Tennessee Registered Nurse II Medical/Surgical/Critical Care 1999-2004 St. Thomas West Hospital Nashville, Tennessee Critical Care Nurse Practitioner/ Pulmonary Intensivist 2004-2016 University Medical Center Lebanon, Tennessee Emergency Room Nurse Practitioner 2008-2009 Duke Raleigh Hospital Raleigh, North Carolina Critical Care Nurse Practitioner 2017-present Smallheer, B. (2011). Learned Helplessness and Depressive Symptoms in Patients Following Acute Myocardial Infarctions, dissertation Smallheer, B., Vollman, M., & Dietrich, M. (2017). Learned helplessness and depressive symptoms following myocardial infarction. Clinical Nursing Research. 38th Annual Conference for National Organization of Nurse Practitioner Faculty, Charleston, SC "Impact of Learned Helplessness and Depressive Symptoms Following Acute Myocardial Infarction", April 12-15, 2012 American College of Nurse Practitioners Clinical Conference, Toronto, Canada "Associations of Learned Helplessness and Psychosocial Factors on Depressive Symptoms Following an Acute Myocardial Infarction", October 3-7, 2012
Author Summary: Dr. Benjamin Smallheer has worked with the cardiac-pulmonary population in a variety of hospital settings throughout his nursing career. He became interested in the psychological responses of patients who had experienced acute myocardial infarctions. He has researched the influence of learned helplessness, social support, and self-efficacy on patient outcomes. He continues to practice as a nurse practitioner on the Critical Care Medicine team at Duke Raleigh Hospital in the Medical Intensive Care Unit.