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Uncertainty in the Medically-Managed Patient With Coronary Heart Disease

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As of 2016, 28.1 million adults in the US were diagnosed with coronary heart disease (CHD). Symptoms of CHD are chronic and include shortness of breath, chest pain, chest discomfort and fatigue. Evidence suggests that individuals newly diagnosed with CHD often experience feelings of uncertainty about their futures. Uncertainty and lack of perceived control are barriers to the development of self-management skills needed to manage symptoms and prevent disease progression. Depressive symptoms, the presence of comorbid conditions, and the quality of the nurse-patient relationship may influence the ability of the patient to self-manage their disease. The purpose of this study was to examine the relationships among uncertainty, perceived control, and self-management in individuals diagnosed with CHD that are medically managed controlling for depressive symptoms, the number of comorbid conditions, and the nurse-patient relationship (nursing presence), age and sex. The aims of this study were to: 1) determine the extent to which the number of CHD symptoms predict uncertainty and self-management; 2) examine the degree to which uncertainty predicts self-management; and 3) evaluate perceived control as a mediator of uncertainty and self-management. A modified version of Mishel's Theory of Uncertainty in Illness guided the study. A convenience sample of 71 participants was enrolled post-cardiac catheterization from four different acute care hospitals. Participants completed a written survey packet after discharge that included measures of uncertainty (Mishel Uncertainty in Illness – Community scale [MUIS-C]); symptoms (Acute Coronary Syndrome Checklist [ACS Checklist]); self-management (Acute Coronary Syndrome Response Index [ACSRI]) with three subscales, knowledge, attitude and belief; perceived control (Control Attitudes Scale – Revised [CAS-R]); depressive symptoms (Center for Epidemiologic Studies-Depression Scale); number of comorbidities (Self-Administered Comorbidity Questionnaire); and nurse presence (Presence of Nursing Scale). The study packet was mailed to each participant and returned via postal mail to the principal investigator. Descriptive statistics were conducted to summarize demographics and multiple regression was used to assess relationships among key variables controlling for depressive symptoms, number of comorbidities, and nursing presence, age and sex. Study participants were primarily White/non-Hispanic (67.7%), male (73.2%), married (74.6%), retired (54.9%), had some college education (55%) and had a household income between \$50,000 - \$100,000 (40.8%) with a mean age of 67.17 (\pm 11.37). Participants reported average levels of uncertainty (MUIS-C) mean=59.36 (\pm 13.1, range 29-88), symptoms (ACS Checklist) mean = 5.98 (\pm 3.34, range 1-13), and self-management (ASCRI) Knowledge subscale mean =14.12 (\pm 3.47, range 4.2-19); Attitude subscale mean =15.24 (\pm 2.8, range 5-20); and Belief subscale mean = 22.36 (\pm 3.42, range 15-28). Furthermore, participants reported average levels of perceived control (CAS-R) mean = 28.23 (\pm 6.39, range 14-40) as compared to the literature. Regression analysis revealed that the number of symptoms was not associated with uncertainty or self-management. However, lower levels of uncertainty predicted higher levels of self-management (ASCRI) Belief subscale ($F=2.435$, $p=.038$) and greater levels of uncertainty predicted lower levels of perceived control ($F=12.313$, $p<.001$). Additionally, perceived control predicted greater self-management (ASCRI) Attitude subscale ($F=3.607$, $p=.005$). The conditions for mediation analysis were not met. Findings suggest that minimizing uncertainty and promoting perceived control may help patients better self-manage their CHD. A greater understanding of the relationships among symptoms, uncertainty, perceived control, and self-management is imperative to further inform the state of nursing science related to the needs of CHD patients that are medically managed and will enable nurses to assist patients with CHD that are medically managed in the development of self-management skills.

Title:

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References:

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Abstract Summary:

The relationships among uncertainty, perceived control, and self-management were examined in 71 coronary heart disease patients. Analysis revealed lower levels of uncertainty predicted higher levels of self-management (belief) and perceived control. Greater levels of perceived control predicted greater self-management (attitude). Minimizing uncertainty and promoting perceived control help patients self-manage CHD.

Content Outline:

1. Introduction:
 1. As of 2016, 28.1 million of adults in the US were diagnosed with coronary heart disease (CHD).
 2. Evidence suggests that individuals newly diagnosed with CHD that are medically managed often experience feelings of uncertainty about their futures.
2. Body
 1. Main Point #1: The first aim was to determine the extent to which CHD symptoms predict uncertainty and self-management controlling for age, sex, comorbidities, depression and nursing presence.
 1. Supporting point #1:
 1. Symptoms were not associated with uncertainty.
 2. Symptoms were not associated with self-management.

2. Main Point #2: The second aim was to examine the degree to which uncertainty predicts self-management controlling for age, sex, comorbidities, depression and nursing presence.
 1. Supporting point #1
 1. Lower levels of uncertainty predicted higher levels of self-management (ACSRI Belief subscale) ($F=2.435$, $p=.038$).
 3. Main Point #3: The third aim was to evaluate perceived control as a mediator of uncertainty and self-management controlling for age, sex, comorbidities, depression and nursing presence.
 1. Supporting point #1
 1. Greater levels of uncertainty predicted lower levels of perceived control ($F=12.313$, $p<.001$).
 2. Greater levels of perceived control predicted greater self-management (ASCRI Attitude subscale) ($F=3.607$, $p=.005$).
 2. Supporting point #2
 1. A significant indirect effect of uncertainty on self-management – belief scale through perceived control, $b = -0.06$, 95% CI [-0.073,.068], was not found.
3. Conclusion
 1. Findings suggest that minimizing uncertainty and promoting perceived control may help patients that are medically managed better self-manage their CHD.
 2. A greater understanding of the relationships among symptoms, uncertainty, perceived control, and self-management is imperative to further inform the state of nursing science related to the needs of CHD patients that are medically managed and will enable nurses to assist patients with CHD that are medically managed in the development of self-management skills.

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