Background

• Coronary heart disease (CHD) or ischemic heart disease due to atherosclerosis is a chronic disease process and is the leading cause of death in both men and women in the United States.1
• New symptoms and a new diagnosis are antecedents to the development of uncertainty associated with illness.2
• After a diagnosis of CHD is made it is important for the individual to develop self-management skills that will help them avoid future symptoms and disease progression.3
• Uncertainty and lack of perceived control of the illness are often barriers to the development of self-management skills.4
• Variables such as depressive symptoms5 and nursing presence6 may influence the relationships among uncertainty, perceived control and self-management skills.

Purpose

The purpose of this study was to examine the relationships among uncertainty, perceived control, and self-management in the medically managed patient with CHD controlling for nursing presence and depressive symptoms.

Aims and Hypotheses

1. Determine the extent to which CHD symptoms predict uncertainty and self-management in the patient with medically managed CHD
   H1 Greater (frequency and intensity) CHD symptoms will be associated with greater uncertainty and less self-management adjusting for depressive symptoms, nursing presence, comorbidities, age, and sex.
2. Examine the degree to which uncertainty predicts self-management in the medically managed patient with CHD
   H2 Greater uncertainty will be associated with less self-management adjusting for depressive symptoms, nursing presence, comorbidities, age, and sex.
3. Evaluate perceived control as a mediator of uncertainty and self-management in the medically managed patient with CHD
   H3 Perceived control will mediate between uncertainty and self-management in medically managed patients with CHD adjusting for depressive symptoms, nursing presence, comorbidity, age, and sex.

Conceptual Model

Modified version of Mishel’s (1988) model of perceived uncertainty in illness

Methods

• Descriptive, cross-sectional, correlation study design
• Participants recruited post-cardiac catheterization that met inclusion criteria – diagnosis of coronary heart disease and a treatment plan for optimal medical management
• Phone consent obtained post-discharge, survey mailed to participants and returned to researcher
• Surveys include: Mishel’s Uncertainty in Illness-Community version, Control Attitudes Scale-Revised, Acute Coronary Syndrome Response Index,

Results

Aim 1

• ACS Symptoms and Uncertainty (r = .29, p = .01)
• ACS Symptoms and Depressive symptoms (r = .22, p = .01)
• ACS Symptoms and Comorbidities (r = .22, p = .05)
• ACS Symptoms did not predict Uncertainty (F = 2.07, p = .73, R² = .19)
• ACS Symptoms and Self-Management-Belief subscale (r = .27, p = .02)
• ACS Symptoms did not predict Self-Management

Aim 2

• Uncertainty and ACS Response Index-Belief (r = -.36, p = .003)
• Uncertainty predicted Self-Management-Belief subscale (F = 2.44, p = .04, R² = .02)

Aim 3

• Uncertainty and Perceived Control (r = -.73, p = <.001)
• Uncertainty predicted Perceived Control (F = 12.31, p = .006, R² = .53)
• Perceived Control and ACS Response Index Attitude (r = .31, p = .008)
• Perceived Control and ACS Response Index Belief (r = .31, p = .008)
• Perceived Control predicted Self-Management-Attitude subscale (F = 3.61, p = .005, R² = .29)
• Perceived Control predicted Self-Management-Belief subscale (F = 6.11, p = .02, R² = .10) (model 1)
• Perceived Control did not predict Self-Management-Belief subscale (F = 2.01, p = .08, R² = .19) (model 2)

Conclusions and Implications

• ACS Symptoms did not predict the degree of uncertainty or self-management.
• Uncertainty did predict self-management Belief subscale but not the Knowledge or Attitude subscales.
• Uncertainty did predict perceived control. There was an inverse relationship so that the greater the uncertainty, the less the individual’s perception of control.
• Perceived Control did predict self-management Attitude subscale.
• Perceived Control also predicted self-management Belief subscale when entered into the regression model alone but not when Belief was entered with all the covariates.
• The mediation model did not demonstrate a direct or an indirect mediation effect of perceived control between uncertainty and self-management in any of the subscales.
• This is the only study to find a relationship between uncertainty and perceived control in patients with CHD.
• Further research is needed between uncertainty and perceived control and the relationship to self-management.

Limitations

• Small sample size, disproportionately white and male
• Non-random sample may introduce selection bias
• Missing data on survey instruments
• Loss of participants after initial contact in hospital
• Exclusion criteria (presence of symptoms suggestive of CHD, presence of heart failure symptoms, presence of cancer or receiving cancer treatment, end-stage organ disease, dementia, unable to contact patient by phone and mail) may limit generalizability

References


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