Uncertainty and Depression as Mediators of Quality of Life in Patients with Heart Failure

Ting-Yu Chen, Doctoral Candidate, RN, Instructor [1][2] Chi-Wen Kao, PhD, RN, Director [1][3]

1. National Defense Medical Center, School of nursing
2. Chung-Jen Junior College of Nursing, Health Sciences and Management
3. Department of Nursing, Tri-Service General Hospital

Objective

Based on the Mishel's uncertainty in illness theory (UIT), this study is to investigate the relationships among uncertainty in illness, depressive symptoms and health-related quality of life (HRQoL) in the patients with heart failure (HF).

Methods

In this cross-sectional observational study, 147 patients with a primary diagnosis of HF completed six self-report questionnaires: demographic and clinical characteristic, Mishel's Uncertainty in Illness Scale(MUIS), Beck Depression Inventory-II (BDI-II), Social Support Scale, Heart Failure Symptom Distress Scale, and Minnesota Living with Heart Failure Questionnaire. In this study, the AMOS 8.0 software package was used to conduct Structural Equation Modeling (SEM) analysis.

Results

The majority of subjects were male(54.4%), with a mean age of 71.04 ±13.29 years. The left ventricular ejection fraction (LVEF) is between 10% and 80%, with an average of 46.42% (SD=17.20). The mean score of MUIS was 73.5 (SD=18.55), BDI-II was 19.42 (SD=11.29), and MLHFQ was 54.41(SD=21.24).

According to Mishel's UIT, the full model incorporated education, NYHA, LVEF, symptom distress, emotional support, and depressive symptoms set up as measured variables. Uncertainty in illness and HRQoL were the latent variables. The final model has good fitness (χ^2/df 2.60, GFI 0.93, AGFI 0.85, CFI 0.96, RMSEA 0.10).

Symptom distress, LVEF, education and emotional support explained 40% variance of uncertainty. Symptom distress, emotional support and uncertainty explained 56% variance of depressive symptoms. Symptom distress, emotional support, uncertainty and depressive symptoms explained 89% of HRQoL. Examination using Sobel's test found that uncertainty was the mediator between symptoms distress and HRQoL (Z value = 3.12 ; p value < 0.01), depressive symptoms was the mediator between symptoms distress and HRQoL (Z value = 2.38 ; p value < 0.01), depressive symptoms was also the mediator between emotional support and HRQoL (Z value = -2.25 ; p value < 0.01).

Conclusion

Our study identified uncertainty and depressive symptoms as mediators between symptoms distress and HRQoL in HF patients. Therefore, we suggest that the clinicians should identify the patients' uncertainty and depressive symptoms in clinical care, and providing non-pharmacological management strategies to improve patients' uncertainty and depressive symptoms.

References

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