

Effect of Educational Intervention on Heart Failure-Related Hospitalization and All-Cause Mortality among Cardiomyopathy Patients in Malaysia

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Abstract

Introduction: Heart failure (HF) is a commonly encountered chronic condition that results in debilitating health outcomes. Despite several advancements, HF due to ischemic cardiomyopathy causes high mortality. While, non-ischemic cardiomyopathies lead to sudden cardiac deaths and ventricular arrhythmias. Recurrent HF-related hospitalizations prevail as a strong predictor of mortality, and imposes high risk of both short-term and long-term mortality.

Objective: To determine the effect of educational intervention on HF-related hospitalization and all-cause mortality among the cardiomyopathy patients after 8 months' follow-up.

Methodology: This analytical, cross-sectional study was carried out at the Cardiology Clinic of Hospital Serdang in Selangor, Malaysia. All patients diagnosed with cardiomyopathy (2006 to 2019) were determined from the hospital's electronic database system. Eligible participants were voluntarily recruited in the intervention group, that comprised of standard medical care and patients' education on heart failure. While, the control group comprised of patients who received standard medical care only. Intervention was aimed to educate the hospital out-patients regarding self-care, symptom control, diet and low salt regimen, pharmacotherapy, physical activity, and psychological support.

Results: The final sample size comprised of 200 cardiomyopathy patients; control (n=109) and intervention group (n=91). Fisher's exact test showed statistically significant association ($p<0.001$) between the frequency of hospital readmission and study groups. The number of participants in intervention group had fewer hospitalizations as compared to control group. Univariate analysis showed that age, FPG, NYHA, and CKD were significantly associated with recurrent hospitalizations. Chi-square test indicated no significant association between mortality and study groups ($p=0.172$). However, the intervention group presented with fewer deaths (n=7, 7.7%), in comparison to control group (n=15, 13.8%).