A constructivist approach to teaching patients with heart failure. Results from an intervention study

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Topic(s):
Chronic Heart Failure: Rehabilitation

Citation:

Funding Acknowledgements:
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Background/Introduction: Despite published guidelines emphasizing the importance of education in management of Heart Failure (HF), the most effective method of educating remains unknown.

Purpose: The purpose of this study was to test the efficacy of Constructivist Teaching Method (CTM) on the patients with HF.

Methods: This is a single-center, randomized controlled trial. Patients in the intervention group were educated using the CTM. For the study outcome measures five questionnaires were used: Atlanta Heart Failure Knowledge Test (AHFKT), Minnesota Living with Heart Failure (MLHFQ), Self-Efficacy for Appropriate Medication Use Scale (SEAMS), European Heart Failure Self-care Behaviour Scale (EHFScBS-9), Duke Activity Status Index (DASI). Repeated measurements analysis of variance (ANOVA) was used in order to investigate differences in study measures between the control and intervention group, during the six month follow up.

Results: A total of 122 adults (83.6% male, mean age ±SD 67.1±12.3 years) were enrolled in the study; 61 in the intervention group and 61 in the control group. The two groups were similar in terms of age, educational level and disease status. Concerning knowledge there was a significant improvement in both control and intervention group but the degree of improvement was greater in the intervention group (p<0.001). Minnesota dimensions for quality of life were also significantly improved in both study groups but at 6 months the intervention group reached better levels at both physical and emotional subscales (p<0.001). Furthermore, self-efficacy for medication adherence and the dimensions from EHFScBS-9 (adhering to recommendations, fluid and sodium management, physical activity and recognition of deteriorating symptoms) were improved in both groups but the degree of change was greater in the intervention group as indicated from the results of repeated measurements ANOVA (p<0.001). The functional capacity was improved only in the intervention group (p<0.001) and no significant change was found in the control group (p=0.455). Significantly lower proportion of readmission at hospital at one month (8.2% vs. 23%, p=0.025), and six months (13.1% vs. 36.1%, p=0.003) were found for the intervention group.

Conclusions: These data support the use of an intervention with CTM to improved clinical outcomes. This study will be an important step in creating an evidence base for the relative benefits of different educational strategies for management of HF.
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