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Types of social support and their relationships to physical and depressive symptoms and health-related quality of life in patients with heart failure

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ABSTRACT

Objectives: To examine the various types of social support associated with physical and depressive symptoms and health-related quality of life (HRQOL) in patients with heart failure (HF) and the mediating effects of symptoms on the relationship between social support and HRQOL.
Background: Patients with HF have a high burden of physical and depressive symptoms, along with poor HRQOL. Social support may improve symptoms and HRQOL.
Methods: Data on social support (marital status, family relationships, relationships with health care providers, social networks, emotional support, and instrumental support), symptoms, and HRQOL were collected from 71 patients. Hierarchical regression was used to analyze the data.
Results: Emotional support was related to all physical and depressive symptoms and HRQOL. Physical and depressive symptoms mediated the relationship between emotional support and HRQOL.
Conclusions: Further studies are needed to identify ways to improve emotional support and determine whether the improvement leads to improvements in symptoms and HRQOL.

Introduction

Health-related quality of life (HRQOL) is poorer in patients with heart failure (HF) than in healthy populations and in patients with other chronic diseases.[1–3] Heart failure symptoms, including dyspnea and fatigue, and depressive symptoms are prevalent in this population and are strongly associated with poor HRQOL.[3–7] Physical symptoms can prevent patients with HF from performing their daily activities that lead to poor HRQOL.[8] For instance, many patients with HF have New York Heart Association (NYHA) functional class II–IV,[9] indicating that they experience HF symptoms when they perform daily activities.[10] In addition, depressive symptoms also can cause functional impairment that leads to poor HRQOL in this population. For example, depressed patients with HF had reduced daily activities and walking distance compared to non-depressed patients.[11] Thus, to improve outcomes, it is important to identify modifiable factors affecting symptoms and HRQOL.

The revised Wilson and Clearly model suggests that social support may be related to both symptoms and HRQOL.[12] Social support may affect physical symptoms through effects on self-care. For instance, social support is associated with adherence to medication treatment and following a low sodium diet,[13–15] and lack of adherence to medication treatment and a low sodium diet is associated with more severe symptom burden and higher hospitalization rates.[16,17] Heart failure symptoms are important antecedents of hospitalizations in this population.[4] Social support has also been associated with depressive symptoms in patients with HF.[18] However, the findings on relationships between social support and HRQOL have been inconsistent. Patients with HF have reported that social support was a factor affecting their HRQOL,[19] and perceived quality of support has been associated with HRQOL.[20] However, the majority of HF studies that have examined the relationships between social support and HRQOL found that these relationships were not significant.[21–24] These contradictory findings, in part, may be due to differing effects of different types of social support on HRQOL.

Abbreviations: HF, Heart failure; HRQOL, Health-related quality of life; NYHA, New York Heart Association.

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Social support in HF studies has been conceptualized in many ways, varying from simple structural support (e.g., marital status) to comprehensive combinations of structural and functional support.[20–22,25,26] Structural support refers to the existence of a social network and the features of contacts with the network (e.g., marital status and social network).[27,28] Martial status refers to a very simple social network with spouse or cohabitant (Fig. 1). Social networks represent a wider range of social networks that extend beyond marital status, including more extended family members, friends, and society. Functional support refers to individuals' perceptions of the resources that social networks provide (e.g., emotional support, instrumental support, and relationships to health-care providers).[27,28] Emotional support refers to intangible support from others except health care providers. Instrumental support refers to tangible support from others. Relationships to health care providers represent support from health care providers. Family relationships may combine structural and functional support because they include not only the existence of a social network but also individuals' perceptions of the resources that family relationships provide. These different types of structural and functional support may affect symptoms and, in turn, HRQOL differently.

The relationships between different types of social support and physical symptoms in patients with HF have been rarely examined. However, a meta-analysis that examined the relationship between different types of support and adherence to medical treatment found that instrumental support had the strongest association with adherence.[25] In addition, adherence to medical treatment was greater in patients from cohesive families than in patients from families in conflict.[25] In another study,[29] patients with HF perceived health care providers as one source of support for medication adherence. Thus, instrumental support, family relationship, and relationships with health care providers may affect self-care, and, in turn, physical symptoms. Relationships between social support and depressive symptoms have been examined in this population. Among different types of structural and functional support, living with families and greater emotional support were the only variables significantly associated with less severe depressive symptoms.[30] Finally, relationships between social support and HRQOL have been examined in this population, and the findings were inconsistent. In one study,[20] one type of functional support (perceived quality of support), but not another type of functional support (emotional support), was associated with HRQOL. In two other studies,[21,22] a combination of different types of structural and functional support was not associated with HRQOL.

One reason for the lack of relationship of social support to HRQOL in HF studies may be that social support affects HRQOL mainly through its effects on other variables, including physical and depressive symptoms.[12] If social support is associated with HRQOL indirectly through its effects on physical symptoms and depressive symptoms, this may explain the lack of direct, independent associations between social support and HRQOL in patients with HF.[21–23] Thus, examination of direct and indirect associations of social support with HRQOL will provide valuable information on the theoretical framework of HRQOL and the associating factors. Therefore, we examined the relationships of several types of social support (marital status, social networks, relationships with health care providers, emotional support, instrumental support, and family relationships) to physical symptoms (dyspnea, fatigue, chest pain, edema, sleeping difficulty, and dizziness), depressive symptoms, and HRQOL. We also explored the mediating effects of physical and depressive symptoms on the relationship between social support and HRQOL in patients with HF.

Methods

Design, setting, and sample

A cross-sectional correlational design was used to examine the relationships of social support to physical symptoms, depressive symptoms, and HRQOL in a convenience sample of patients with HF. Institutional Review Board approval was obtained for the current study. Eligible patients were referred to research associates by physicians or nurse practitioners in the HF clinic and then approached by the research associates who were trained in questionnaire administration and interviewing. Patients were recruited from an HF clinic at a hospital in a Mid-Atlantic city in the US between 2008 and 2009. Inclusion criteria were 1) a confirmed diagnosis of HF, 2) NYHA functional class II–IV (symptomatic patients), 3) ability to read and write English, 4) no dementia, and 5) age 18 years or older. The diagnosis of HF was confirmed through medical record review using established criteria.[31] Patients were carefully questioned by research associates to determine NYHA classification. We included only symptomatic patients because they need to be involved in self-management, including restricted sodium intake and adjustment of diuretics,[32,33] and they may need more social support.[34] We also included only those patients with no history of dementia identified on medical chart for collaboration during data collection. Written informed consent was obtained from all participants after explanation of the study purpose and procedures.

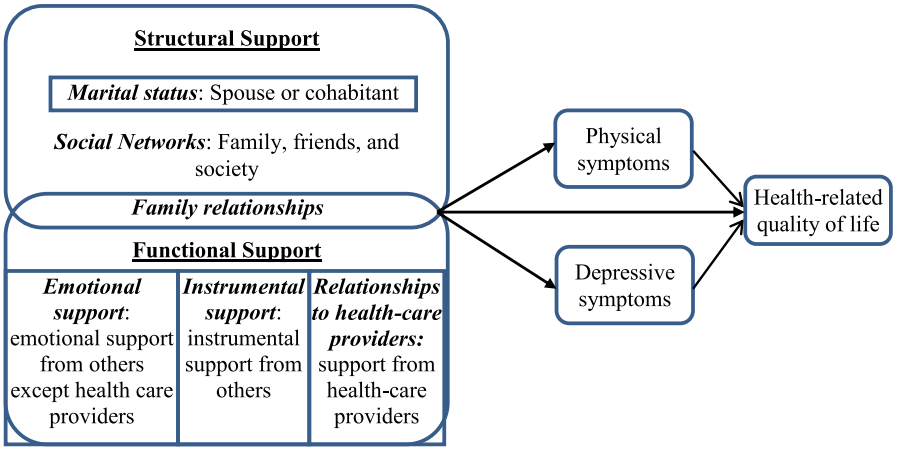

Fig. 1. Theoretical framework.