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Patient perception, preference and participation

A patient-centered perspective of treating depressive symptoms in chronic heart failure: What do patients prefer?

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ABSTRACT

Objective: To date, very little is known about the specific needs of patients with chronic heart failure (CHF) who must cope with depression. We therefore questioned CHF patients reporting depressive symptoms about their concerns and preferences regarding various psychosocial treatment options. After three-month, we determined how many patients had actually participated in a treatment.
Methods: 85 patients with CHF fulfilling the criteria of a depressive disorder according to the PHQ-9 were investigated. Data were analyzed using descriptive and frequency, as well as logistic regression analyses.
Results: 64.7% of the sample reported that they could envision adhering to supportive talks at longer intervals, whereas only 34.1% would accept an antidepressant. After three months, 24.7% of the patients had actually participated in a treatment. Generalized anxiety severity (GAD-7) was very closely associated with treatment preferences and treatment utilization: The higher the generalized anxiety severity, the more likely was the patients' disposition to begin an antidepressant and/or psychotherapy.
Conclusions: The most favoured treatment option was a low-threshold service with supportive talks.
Practice implications: Future studies investigating the improvement of patient-centred care in CHF patients should include measurements of generalized anxiety.

1. Introduction

Chronic heart failure (CHF) is a disabling disease with poor prognosis and a severely restricted quality of life [1,2]. Most patients suffer from agonizing symptoms such as dyspnoea, reduced functional capacity, and peripheral edema [3]. Daily activities are often impaired, and social life and relationships with significant others are restricted [4]. Furthermore, CHF is frequently accompanied by depressive symptoms: One in five persons with CHF suffers from clinical depression [5], and annual depression-incidence rates are very high [6]. Previous studies have shown that co-morbid depressive symptoms exacerbates the situation of heart failure patients: Depressive symptoms predict mortality, rehospitalisation, and an increased symptom-burden in CHF patients [7,8].

Recent research is, therefore, increasingly focused on both pharmacological and non-pharmacological depression-treatment in CHF (e.g. [9–11]). Several studies have reported positive effects for various non-pharmacological depression-treatments in CHF patients (e.g. [5,9–14]). A few studies have also found an improvement of cardiac outcomes and clinical symptoms as a result of depression treatments [13,14], and Jiang et al. reported a potential relation between depression remission and cardiovascular outcome [15]. However, many studies either combined different treatment options (e.g. exercise and cognitive behavioural therapy) and/or relied on small patient-samples (e.g. [12]). Results of pharmacological treatment of depression are still contradictory: While two minor studies [16,17] found encouraging results concerning the efficacy of antidepressants in CHF, O'Connor and colleagues found no improvement of depression in their large placebo-controlled, double-blind trial comprising 469 patients [18].

In summary, larger randomized and controlled studies are needed before conclusions and generalizations regarding the effects of the various depression-treatment options may be drawn. However, another important question remains that to our

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knowledge has been only marginally investigated to date: What kind of treatment do depressed CHF patients prefer regarding their personal situation with conditions like tiredness, shortness of breath, or other co-morbid diagnoses? And further, what kind of treatment do they, in fact, accept, if they have a choice? Although de Boer et al. [19] reported that patient-centred care is especially important for CHF patients, until now, only few studies have investigated the patients' perspective of treating depression in this patient group.

The purpose of our study was, therefore, to analyse the preferences and objections of CHF patients suffering from depressive symptoms regarding various psychosocial treatment options. After a period of three months we analysed how many patients had actually participated in a treatment.

2. Methods

2.1. Patient sample

The patients for our study were recruited from the CHF Outpatient Department of the Medical Hospital at the University of Heidelberg. All patients of this Outpatient Department had completed the German version of the 9-item depression module of the Patient Health Questionnaire (PHQ-9) as part of the clinical routine procedure [20,21]. The PHQ-9 asks for cognitive, affective, and somatic depression symptoms; each item corresponds to one of the nine DSM-IV diagnostic A-criteria of a major depressive disorder [22]. The stem question is, "Over the last two weeks, how often have you been bothered by any of the following problems?" Response options are as follows: 'not at all', 'several days', 'more than half the days', and 'nearly every day'—scored 0, 1, 2, and 3, respectively. The operating characteristics of the PHQ-9 for diagnosing a depressive disorder have proven to be excellent [23].

Patients were asked to participate in our study if $\geq$2 items of the PHQ-9 were reported 'on more than half the days', and if at least one of these items was depressed mood or anhedonia—according to the PHQ-9 depression coding algorithm.

Further inclusion criteria were stable, documented, systolic heart failure, and age $\geq$18. Suicidal ideation and ideas of self-harm were clarified immediately if patients reported them on the ninth item of the PHQ-9. To minimize sample bias, patients were recruited consecutively on predetermined days. Ethical approval for the study was obtained from the Ethics committee of the Medical Faculty of the University of Heidelberg. The study protocol conforms to the principles as outlined in the Declaration of Helsinki [24,25].

2.2. Assessment of psychosocial and clinical variables

Socio-demographic data concerning age, gender, level of education, employment status, and living situation were obtained from all patients. A comprehensive clinical status, including aetiology of CHF, left ventricular ejection fraction (LVEF), New York Heart Association (NYHA) functional classification, and current medication were recorded by the study physician. In addition, the patient's health-related quality of life (HRQOL) was assessed using the German version of the 36-item Short-Form Health Survey (SF-36) [26,27]. The SF-36 is a multidimensional and well-validated instrument, comprised of eight subscales and two sum-scores: mental and physical. Scores are converted to a scale of 0–100, with higher scores indicating a better health-related quality of life.

Because anxiety disorders belong to the most common mental disorders in medical populations [28], we assessed, in addition to depression and HRQOL, symptoms of generalized anxiety such as 'not being able to stop or control worrying', or 'feeling nervous, anxious or on edge'. We therefore administered the 7-item anxiety scale (GAD-7) [29]. Response options are: 'nearly every day', 'on more than half the days', 'several days', and 'not at all'—scored as 0, 1, 2, and 3, respectively. The GAD-7 has proven to be a valid and efficient tool for anxiety-screening [28–30].

2.3. Assessment of treatment preferences

Using a standardized interview, patients were asked about their preferences and retentions regarding psycho-social treatment options such as psychotherapy or self-help groups; the treatment options were briefly explained. Patients were then asked if they could envision adhering to such a treatment (e.g. "Could you envision adhering to weekly psychotherapy sessions?"; answer options were: "Yes, I could envision adhering to such a treatment" or "No, I could not envision adhering to such a treatment"). If patients answered with "no", they were asked for reasons by means of several options listed. After the interview was completed, patients could choose to utilize one of the treatments options, and were then referred. At the three-month follow-up, we determined how many patients hah actually participated in a treatment.

2.4. Statistical analyses

Data are presented using frequency analyses for categorical data and descriptive analyses for continuous data. A logistic regression modelling process was applied to identify correlates of the most established depression treatment options (antidepressants and psychotherapy) and predictors of treatment utilization. We first conducted a series of univariate logistic regression analyses; all variables with $p \leq .05$ were included in the final multivariate regression model. The variables 'level of education' and 'aetiology of CHF' were dummy-coded because of the nominal character of these variables. Due to its skewed distribution, a logarithmic transformation was performed for the variable 'NT-proBNP'. An approximation to a normal density was achieved by applying $t = 2 \times \lg_{10}(B + 10) - 2$, where B denotes the raw NT-proBNP value [31].

3. Results

3.1. Subjects

A total of 85 patients fulfilling the criteria of a depressive disorder according to the PHQ-9 gave informed consent and completed all study questionnaires and interviews. The participation rate was 67.4%: 41 patients refused to take part; the most prevalent reasons for non-participation were exhaustion and fatigue due to chronic illness or conflicting appointments with other outpatient departments. Three patients were excluded due to missing data. At the three-month follow-up, 68 patients (80%) were reassessed; 2 patients (2.4%) had died, and 15 patients (17.6%) were lost to follow up.

Dilatative cardiomyopathy was the main reason for CHF, followed by coronary heart disease and other disease entities. Socio-demographic data, as well as functional and psycho-social variables, are shown in Table 1.

A total of 8 patients (9.4%) reported that they were currently in psychotherapeutic treatment. Sixteen patients (18.8%) reported that they regularly or occasionally took an antidepressant (SSRI/SNRI) or sedative medication. Four patients reported to have suicidal ideations or ideas of self-harm on at least 'more than half the days'.