Does a Relationship Exist Among Depression, Anxiety, and Quality of Life for Patients in a Disease Management Program?

Advocate Christ medical Center

Introduction

• Research suggests a significant correlation between Heart Failure (HF), depression, and anxiety.1,2

• There is a documented relationship between the pathophysiological processes associated with HF and behavioral health concerns of anxiety and depression.2

Purpose

• The primary purpose of the study was to evaluate change over the course of treatment in HF disease management program (DMP) in HF patients:
  • Self-reported anxiety
  • Depression and
  • QOL

Methods

Study Design

• Observational longitudinal study.

Sample & Setting

• 50 patients randomly selected from those cared for at the Advocate Christ Medical Center Congestive Heart Failure (CHF) Clinic.

Procedures

• Patients completed the following measures to establish a baseline:
  • Minnesota Living with Heart Failure Questionnaire (MLWHFQ).
    - Cronbach Alpha Coefficient =0.95
  • Patient Health Questionnaire (PHQ-7)
    - Cronbach Alpha Coefficient =0.85
  • Generalized Anxiety Disorder (GAD-7)
    - Cronbach Alpha Coefficient =0.91

  • These measure were administered again to the patients at 6-months and 12-months.

Data Analysis

• Repeated measures ANOVA was used to examine change over time for depression, anxiety, and QOL.

Results

• Baseline Characteristics

  • Age= 62.9±13.34 yrs
  • Race = African American 32/50
    - White- 17/50
    - Hispanic= 1/50
  • Gender= Female 23/50
  • Heart failure etiology= 
    - Dilated-22/50
    - Ischemic-10/50
    - Preserved systolic function-10/50
    - Other-8/50

  74% of these completed their six months visit
  • 50% completed their 12-month visit.

  • MLWHFQ

    • There was a significant association identified between time and MLWHFQ in the repeated measures analysis (p < 0.001).
    • There was a decrease of 27.31 in the mean score from the baseline to 6 months (p< 0.001) and decrease of 27.51 from baseline to 12 months (p < 0.001).

• PHQ-9

    • There was an association approaching significance between time and PHQ-9 scores in the repeated measures analysis.

• GAD-7

    • There was no significant association identified between time and GAD-7 in the repeated measures analysis.

Implications

Assessing HF patients for behavioral health symptoms and providing early intervention may help in improving HF patients’ QOL. Participation in DMPs may improve patients reported QOL through increased social support and symptom management.

Acknowledgements

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Bibliography


Table 1. Results (n=50) * Median (Interquartile ratio)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Value</th>
<th>Baseline (N=50)</th>
<th>6 mos (N=37)</th>
<th>12 mos (N=25)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHQ9*</td>
<td>6 (0 – 8)</td>
<td>3 (0 – 5)</td>
<td>3 (0 – 7)</td>
<td></td>
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<tr>
<td>MLWHFQ*</td>
<td>48 (24 – 64)</td>
<td>16 (4 – 27)</td>
<td>10 (3 – 18)</td>
<td></td>
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<tr>
<td>GAD7*</td>
<td>2 (0 – 6)</td>
<td>2 (0 – 5)</td>
<td>1 (0 – 4)</td>
<td></td>
</tr>
<tr>
<td>Number of 30-day Readmissions in previous year**</td>
<td>8</td>
<td>3 (3–14)</td>
<td>3 (1–15)</td>
<td>2 (1–15)</td>
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<tr>
<td></td>
<td>1</td>
<td>4 (1–15)</td>
<td>3 (1–15)</td>
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<td>3</td>
<td>2 (1–15)</td>
<td>3 (1–15)</td>
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</table>

** N (%)

Conclusions

The significant improvement noted in the MLWHFQ especially between baseline and 6 months may reflect the contribution DMP attendance has on QOL and earlier behavioral health interventions.

Limitations

The sample size was small and due to attrition, the number of subjects declined over time.