The Relationship Between Depression Scores and Readmission Rates in CHF Patients
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BACKGROUND
- 5-6 million Americans suffer from CHF and 60% of those patients suffer from depression (Rifat et al., 2011).
- Depression often leads to an increase in complications and non-compliance to:
  - prescribed medications
  - lifestyle modifications
  - follow-up cardiac testing (Barnett et al., 2012)
- A decline in patient condition causes an increase in prescribed medications
- The dependent variable included the depression score on the PHQ 9.
- The independent variable included the readmission rates for patients with CHF.
- There is a significant increase in complications based on the depression score on the PHQ 9.
- Applying Meleis Transition Theory (2010) applies to the patient’s transition from a state of wellness to a state of illness
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RESEARCH STUDY AND PURPOSE
Purpose: To identify the effect depression has on readmission rates for patients with CHF
Hypothesis: There is a significant increase in readmission rates as the CHF patient’s depression score increases.

RESEARCH METHODOLOGY
A descriptive, quantitative, retrospective chart review was completed over a six month period including all patients who were admitted with a diagnosis of CHF. All patients who were admitted to the hospital were screened for depression and monitored for readmission for 60 days after discharge.

First Readmission N=316

<table>
<thead>
<tr>
<th>PHQ-9 Level of Depression</th>
<th>Not Readmitted</th>
<th>30 Day Readmissions</th>
<th>60 Day Readmissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimal Depression (PHQ-9: 0-4)</td>
<td>244 (93.1)</td>
<td>12 (4.6)</td>
<td>6 (2.3)</td>
</tr>
<tr>
<td>Mild/Moderate Depression (PHQ-9: 5-14)</td>
<td>21 (41.2)</td>
<td>25 (49.0)</td>
<td>5 (9.8)</td>
</tr>
<tr>
<td>Severe Depression (PHQ-9: 15-27)</td>
<td>0 (0.0)</td>
<td>3 (100.0)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Total</td>
<td>265 (83.9)</td>
<td>40 (12.7)</td>
<td>11 (3.5)</td>
</tr>
</tbody>
</table>

Summary: Patients who screened positive for depression on admission to the hospital were at greater risk for being readmitted within 30 days.

RESULTS

CONCLUSION
The effective utilization of depression screening may be expanded to other disease processes to help our community as a whole.

Information gathered from this data could also support the development of a depression care team for those who screen positive for depression.

REFERENCES

Practice
- Patients should be screened for depression upon admission
- Resources should be established and put in place both during hospitalization and after discharge
- Communicate across the continuum of care
- The primary care provider should validate the preliminary findings of depression upon follow-up to the clinic after discharge and be informed of resources provided to patient.

Education
- Educate nursing and patient’s on the importance of screening and its benefit to the patient, the perception of the behaviors of a patient with depression, and the correct way to administer the tool without bias.

Policy
- A list of required resources will be applied to each patient based on their depression score prior to discharge

Research
- Repeat the study after nurse’s education is complete to determine if PDH-Q zero scores diminish and/or if there is a different relationship between depression scores and readmission rates.
- Evaluate what interventions are effective in managing depression when a patient tests positive for depression at the mild/moderate PHQ-9 score (5-14) and the severe PHQ-9 score (>14).

Summary: There were an abnormally high number of patients with a depression score of “0”. This is suggestive that further education is needed on how to complete depression screening and a re-emphasis on why depression screening is important.

The effective utilization of depression screening may be expanded to other disease processes to help our community as a whole.