Patient Comorbidity Profiles in an Integrated Behavioral Health Primary Care Setting

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Introduction

More than 132 million people in the United States experience chronic pain, depression, or anxiety. These conditions often present in primary care and occur simultaneously, making prompt diagnosis and treatment of all conditions necessary. Behavioral health professionals working in emerging integrated primary care settings need reliable, valid, short, affordable, easy to use measurement tools to assess these conditions in a fast-paced environment.

Objective

1. To determine if the GAD-7, PHQ-9, and PHQ-15 are effective in our partially integrated behavioral health setting prior to advocating for full implementation in the electronic health record as we moved to a fully integrated model.
2. To examine differences between diagnostic groups for each of the measures: the GAD-7, PHQ-9, and PHQ-15.

Design

1. Within-subjects design. Subjects within each diagnostic group completed all three measures prior to treatment. Mean scores for each measure within each diagnostic group examined for “clinical significance criterion of a score ≥ 10. Paired-sample t-tests were used to determine differences among GAD-7, PHQ-9, and PHQ-15 scores within each of the three ICD-10 diagnostic groups, anxiety, depression, and pain.
2. Between groups cross-sectional design was used. Differences among the three diagnostic groups for each of the three measures, GAD-7, PHQ-9, and PHQ-15 were examined by means of ANOVA with Tukey HSD post hoc tests.

Methods

• 418 patients seen in an urban primary clinic by behavioral health with elements of colocation and full integration.
• 255 females and 163 males who spoke English and were age 16 and above with a mean age of 45.17 (SD = 14.97).
• Ethnicity - African American (17.9%), Caucasian (69.6%), Latino/Hispanic (4.2%), Asian (.5%), Native American (.5%), and other/decline to state (7.2%).
• Subjects divided in 3 groups based on ICD-10 diagnosis: anxiety (N=172), depression (N=109), and/or somatic symptom or related disorders (N=137).
• All patients were administered 3 questionnaires: GAD-7 for anxiety, PHQ-9 for depression and PHQ-15 for symptoms of somatization.

Results

Table 1: Descriptive Statistics and Paired Sample t-test Results Comparing Screening Tools Within Each Diagnostic Group

<table>
<thead>
<tr>
<th>Screening Tool</th>
<th>Anxiety Group</th>
<th>Depression Group</th>
<th>Pain Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAD-7</td>
<td>M = 17.7, SD = 6.8</td>
<td>M = 15.8, SD = 5.8</td>
<td>M = 13.3, SD = 6.0</td>
</tr>
<tr>
<td>PHQ-9</td>
<td>M = 10.9, SD = 4.5</td>
<td>M = 10.3, SD = 4.5</td>
<td>M = 4.2, SD = 3.0</td>
</tr>
<tr>
<td>PHQ-15</td>
<td>M = 11.0, SD = 5.5</td>
<td>M = 11.0, SD = 5.5</td>
<td>M = 5.5, SD = 3.5</td>
</tr>
</tbody>
</table>

Table 2: Tukey HSD post hoc tests comparing Diagnostic Group Means for Each Screening Tool

<table>
<thead>
<tr>
<th>Screening Tool</th>
<th>Tukey HSD Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAD-7</td>
<td>Anxiety vs. Depression vs. Pain</td>
</tr>
<tr>
<td>PHQ-9</td>
<td>Anxiety vs. Depression vs. Pain</td>
</tr>
<tr>
<td>PHQ-15</td>
<td>Anxiety vs. Depression vs. Pain</td>
</tr>
</tbody>
</table>

• Patients in the anxiety, depression, and pain groups scored significantly higher on the GAD-7, PHQ-9, and PHQ-15, respectively.
• The depression and pain groups had higher GAD-7 scores than patients in the anxiety group suggesting that patients with depression and pain were even more anxious than patients diagnosed with an anxiety disorder.
• Patients in the depression and pain groups reported clinically relevant high moderate scores on all measures.

Discussion

• Results suggest that patients with chronic pain need to be assessed for the co-morbid conditions of anxiety and depression, and depressed patients need to also be assessed for anxiety and somatic symptoms.
• Questionnaires like the ones used in this study are easy tools to use in the primary care setting, where these conditions are primarily diagnosed, to provide a thorough initial screening of patients for all the comorbid conditions.
• The benefit of this approach is that these questionnaires are cheap, easy to administer and score, and can be quickly completed while a patient is waiting to be seen by a provider and scored by clinic staff.
• A full assessment of comorbid psychiatric and pain conditions can allow the person to have the best chance of symptom and functional status improvement.
• With the implementation of a full screening modality such as screening for depression, anxiety, and somatization in integrated primary care settings, patients with chronic pain can be diagnosed efficiently and be treated correctly by physicians and mental health professionals.

Conclusions

The GAD-7, PHQ-9, and PHQ-15 appear to be valid measures of their respective conditions, and in combination provide an accurate co-morbid profile especially for patients with depression or chronic pain seen in an integrated behavioral health primary care setting.

References


Tukey HSD Tests for Mean Comparison

M = Mean; SD = Standard Deviation; CI = Confidence Interval

Table 2: Tukey HSD post hoc tests comparing Diagnostic Group Means for Each Screening Tool