**The Patient Health Questionnaire-9 [PHQ-9] and Initiation of Care for Depression in Adults in Primary Care**

Meghan Shackleton, APRN, MS, FNP-C; Project Advisor: Dr. Michelle Felix DNP, CRNP, MSN; Organizational Mentor: Jana Cantrell, MBA

Johns Hopkins School of Nursing

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### Introduction and Background

Inadequate screening, identification, and treatment of adults with major depressive disorder or dysthymia in rural primary care settings are leading to poorer outcomes, including worsening chronic comorbidities, loss of productivity, and increased rates of suicide.

In the US, 44% of adults aged 26 to 44 years had experienced mental illness received treatment of depression as a major concern of primary care providers.

Shortage of mental health care providers in rural areas is projected to double by 2030 (Chisholm et al., 2016).

Estimated US$5 trillion in lost output from depression was expected to exceed living with MDD was 7.36%.

The chi-square statistic is 2.9409. The p-value is .057769. The result is not significant at p < .05.

### Methods

**Aim 1**

<table>
<thead>
<tr>
<th>Category</th>
<th>Before I 2020</th>
<th>Before I 2021</th>
<th>After I 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total in Sample</td>
<td>7 (8.83)</td>
<td>12 (15.14)</td>
<td>42 (37.02)</td>
</tr>
<tr>
<td># identified</td>
<td>7 (6.08)</td>
<td>12 (10.43)</td>
<td>23 (25.49)</td>
</tr>
<tr>
<td># initiated</td>
<td>7 (6.08)</td>
<td>12 (10.43)</td>
<td>23 (25.49)</td>
</tr>
</tbody>
</table>

The chi-square statistic is 2.9409. The p-value is .057769. The result is not significant at p < .05.

### Results

#### Data By Year

<table>
<thead>
<tr>
<th># of PHQ-9 Administered</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td># Unique PHQ-9 Completed</td>
<td>10</td>
<td>26</td>
<td>38</td>
<td>100</td>
</tr>
<tr>
<td># of PHQ-9 Greater Than or Equal to 10</td>
<td>4</td>
<td>15</td>
<td>30</td>
<td>285</td>
</tr>
<tr>
<td># Omitted due Exclusion Criteria</td>
<td>0</td>
<td>18</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total #</td>
<td>4</td>
<td>7</td>
<td>12</td>
<td>285</td>
</tr>
</tbody>
</table>

The chi-square statistic is 42.6679. The p-value is < 0.0001. The result is significant at p < .05.

### Purpose and Aims

- To develop, implement, and evaluate the effects of an evidence-based standard operating procedure for screening for, identification of, and initiation of care for depression in adults in a primary care clinic serving a rural population using the PHQ-9.
- To increase the number of patients screened for depression compared to before implementation.
- To increase the number of patients properly identified as needing care for depression compared to before implementation.
- To increase the number of patients initiated into care for depression compared to before implementation.

### Conclusions

The project found that, while there was a significant relationship between screening for depression before and after the intervention, there was no significant relationship between identification of need for or initiation of care for depression before and after the intervention.

### Discussion

To expand on this study’s findings, future initiatives should focus on continuing initial screening for all adults ages 18+ at least once annually. However, repeat screening should only be administered for those who need tracking of care initiation and treatment response. The literature shows that utilizing the PHQ-9 for follow up at intervals of at least 30 days post-initial positive PHQ-9, and again at 6 months and 12 months, may not only provide data for symptom improvement but documentation for quality measure reimbursement (CMS, 2019abc; Pfoh, et al., 2020). If possible, a new QI project focused on developing a follow-up procedure for those patients identified as needing treatment on initial screening at 30 days, 6 months and 12 months would be beneficial.

### Acknowledgements

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References available upon request.