Administration and Scoring of the Patient Health Questionnaire-9 (PHQ-9)

PAR Staff
OVERVIEW

The Patient Health Questionnaire-9 (PHQ-9) was developed by Drs. Robert L. Spitzer, Janet B. W. Williams, Kurt Kroenke, and colleagues using the depression module of the Patient Health Questionnaire, the self-administered version of the Primary Care Evaluation of Mental Disorders (PRIME-MD). The 9-item depression screening instrument was designed for use with adults in a primary care setting. Over the past 20 years, the PHQ-9 has garnered overwhelming popularity in research and practice (Kroenke et al., 2010). Administration and scoring, available on PARiConnect, take approximately 2 minutes.

ADMINISTRATION

The PHQ-9 is administered using PARiConnect, PAR’s online assessment platform. Examinees can complete the PHQ-9 in-office or at a remote location via an email link, which launches the administration. Detailed information on the use of PARiConnect is available under All Help Topics on PARiConnect. Each of the 9 items are displayed one at a time with a progress bar displayed below the response options. Items cannot be skipped during administration. Therefore, an advantage to administering the PHQ-9 via PARiConnect is the ability to capture a complete administration each and every time.

PHQ-9 items reflect the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV; American Psychiatric Association, 1994) criteria for major depression. Respondents are asked to rate each item for frequency of occurrence using a 4-point Likert scale (Not at all = 0, Several days = 1, More than half the days = 2, and Nearly every day = 3).

SCORING

All responses are summed to calculate the total PHQ-9 score ranging from 0-27 with increasing scores indicating greater severity of depression.

PHQ-9 Score Report

Severity Ranges

After generating a Score Report on PARiConnect, an examinee’s PHQ-9 score will be plotted along a number line with shading to represent changes in severity of depressive symptoms (see Figure 1). Severity ranges are based on guidance in the initial validation study by Kroenke and colleagues (2001).

Figure 1. PHQ-9 Score Report Figure Example
**Cut-off Recommendations**

Since its inception, several recommended cut-off scores have been suggested. In the initial validation study, a cut-off score of 10 or higher indicated 88% sensitivity and 88% specificity for detecting major depression (Kroenke, Spitzer, & Williams, 2001). Manea and colleagues (2012) found the PHQ-9 to have acceptable diagnostic properties for detecting major depressive disorder using cut-off scores between 8 and 11. In their study, a cut-off score of greater than or equal to 10 demonstrated 85% sensitivity and 89% specificity. In subsequent research, Manea and colleagues (2015) conducted another meta-analysis of the PHQ-9 to determine the best approach for scoring. They found that compared to a frequently cited diagnostic algorithm in the literature, using a cut-off score of greater than or equal to 10 based on summed-item scores had better diagnostic performance for screening purposes where higher sensitivity is needed. Based on a meta-analysis of 17 studies across various settings, Gilbody and colleagues (2007) concluded that clinicians and researchers may need to adjust cut-off scores based on clinical population characteristics.

**Treatment Recommendations**

The PHQ-9 Score Report includes treatment recommendations based on an individual’s score. These proposed treatment actions are adapted from recommendations by Kroenke and Spitzer (2002). If the examinee endorses suicidal ideation on item 9, immediate risk assessment is necessary.

<table>
<thead>
<tr>
<th>Score(s)</th>
<th>Severity of depression</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>None</td>
<td>N/A</td>
</tr>
<tr>
<td>1-4</td>
<td>Minimal</td>
<td>No follow-up warranted at this time.</td>
</tr>
<tr>
<td>5-9</td>
<td>Mild</td>
<td>Recommendations of watchful waiting. Watchful waiting means closely watching symptoms of depression, but not actively treating. May benefit from self-care activities and monthly monitoring using the PHQ-9. Repeat administration of the PHQ-9 for follow-up as indicated. If symptoms persist after 2-3 months, active treatment may be warranted.</td>
</tr>
<tr>
<td>10-14</td>
<td>Moderate</td>
<td>Likely to be diagnosed with depression by a mental health professional. Follow up to obtain the history of present illness. Symptoms may benefit from treatment planning, including counseling, assertive follow-up, and/or pharmacotherapy.</td>
</tr>
<tr>
<td>15-19</td>
<td>Moderately severe</td>
<td>Likely to be diagnosed with depression by a mental health professional. Follow up to obtain the history of present illness. Active treatment with either psychotherapy and/or pharmacotherapy is recommended.</td>
</tr>
<tr>
<td>20-27</td>
<td>Severe</td>
<td>Likely to be diagnosed with depression by a mental health professional. Follow up to obtain the history of present illness. Individuals with severe symptoms often benefit from psychiatric consultation to initiate pharmacotherapy. Additionally, expedited referral to a mental health specialist for psychotherapy as an additional treatment is recommended.</td>
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</table>
REFERENCES


APPENDIX

Patient Health Questionnaire-9 (PHQ-9)

Over the last 2 weeks, how often have you been bothered by any of the following problems?

Not at all = 0            Several days = 1        More than half the days = 2           Nearly every day = 3

<table>
<thead>
<tr>
<th>Item</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Little interest or pleasure in doing things</td>
<td></td>
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<tr>
<td>2. Feeling down, depressed, or hopeless</td>
<td></td>
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<tr>
<td>3. Trouble falling or staying asleep, or sleeping too much</td>
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<td>4. Feeling tired or having little energy</td>
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<td>5. Poor appetite or overeating</td>
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<td>6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down</td>
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<td>7. Trouble concentrating on things such as reading the newspaper or watching television</td>
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<tr>
<td>8. Moving or speaking so slowly that other people could have noticed? Or the opposite—being so fidgety or restless that you have been moving around a lot more than usual</td>
<td></td>
</tr>
<tr>
<td>9. Thoughts that you would be better off dead or of hurting yourself in some way</td>
<td></td>
</tr>
</tbody>
</table>

Score(s)

Severity of depression

Recommendations

- 0
  - None
  - N/A
- 1-4
  - Minimal
  - No follow-up warranted at this time.
- 5-9
  - Mild
  - Recommendations of watchful waiting. Watchful waiting means closely watching symptoms of depression, but not actively treating. May benefit from self-care activities and monthly monitoring using the PHQ-9. Repeat administration of the PHQ-9 for follow-up as indicated. If symptoms persist after 2-3 months, active treatment may be warranted.
- 10-14
  - Moderate
  - Likely to be diagnosed with depression by a mental health professional. Follow up to obtain the history of present illness. Symptoms may benefit from treatment planning, including counseling, assertive follow-up, and/or pharmacotherapy.
- 15-19
  - Moderately severe
  - Likely to be diagnosed with depression by a mental health professional. Follow up to obtain the history of present illness. Active treatment with either psychotherapy and/or pharmacotherapy is recommended.
- 20-27
  - Severe
  - Likely to be diagnosed with depression by a mental health professional. Follow up to obtain the history of present illness. Individuals with severe symptoms often benefit from a psychiatric consultation to initiate pharmacotherapy. Additionally, expedited referral to a mental health specialist for psychotherapy as an additional treatment is recommended.