

Comparison of Two Depression Screeners in a Memory Clinic Population

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BACKGROUND INFORMATION

Currently, the global prevalence of depression in older adults is 28.4% (Hu et al., 2022), which is an increasingly important public health concern. In addition, late-life depression can be difficult to diagnose and can have devastating effects such as a lower quality of life, increased risk of dementia, and higher suicide completion rate (Rodda et al., 2011). Thus, quick and effective measures to diagnose depression have been of great need in medical settings. Specifically, screening tools have been increasingly appealing to primary care providers due to their ability to detect mental health concerns both quickly and effectively. This has become an important healthcare topic in the primary care setting (Cano et al., 2001). Common screeners for depression include the patient health questionnaire-9 (PHQ-9) and for geriatric populations specifically, the geriatric depression scale (GDS). The PHQ-9 consists of nine items such that endorsing five or more items indicates mild depression, whereas the GDS consists of 30 items with a score of 10 indicating mild depression. Given the prevalence of depression in the elderly population, a shorter screening measure such as the PHQ-9 would be quicker to identify geriatric depression in a primary care setting. Previous literature has shown comparable outcomes across PHQ-9 and GDS-15 measures in identifying depression among individuals 65 years and older (Costa et al., 2015; Phelan et al., 2010; Zhang et al., 2019). However, this literature focused on the comparability between the PHQ-9 and the GDS-15, rather than the long form of the GDS. Therefore, the objective of this study was to replicate these findings with the 30-item GDS in a memory clinic population.

OBJECTIVE

The present study examines the degree of agreement between the Patient Health Questionnaire-9 (PHQ-9) and Geriatric Depression Scale (GDS) in detecting depression in older adults (ages 65+) in a memory disorder clinic sample.

MEASURES

PHQ-9: The PHQ-9 is a 9-item questionnaire with a Likert-style rating format designed to mirror DSM criteria for a major depressive episode (Figure 1).

GDS: The GDS is a 30-item questionnaire with a yes or no response format developed specifically for geriatric use in assessing depressive symptoms (Figure 2).

TABLE

Table 1.
Crosstabulation of Depression Elevation Determined by GDS and PHQ-9

		GDS		Total
		No Depression	Depression	
PHQ-9	No Depression	46	6	52
	Depression	13	35	48
Total	59	41	100	

FIGURES

Figure 1.

PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

NAME: _____ DATE: _____

Over the last 2 weeks, how often have you been bothered by any of the following problems? (use "✓" to indicate your answer)

	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or acting 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	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself	0	1	2	3

Instructions: For questions 10 through 14, add columns: _____ + _____ = _____

10. If you checked off any problem, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

	Not difficult at all	Somewhat difficult	Very difficult	Extremely difficult
	_____	_____	_____	_____

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Figure 2.

Geriatric Depression Scale (Long Form)

Patient's Name: _____ Date: _____

Instructions: Choose the best answer for how you felt over the past week.

No. Question	Answer	Score
1. Are you basically satisfied with your life?	YES / NO	
2. Have you dropped many of your activities and interests?	YES / NO	
3. Do you feel that your life is empty?	YES / NO	
4. Do you often get bored?	YES / NO	
5. Do you have trouble falling asleep?	YES / NO	
6. Are you bothered by thoughts you can't get out of your head?	YES / NO	
7. Are you in good spirits most of the time?	YES / NO	
8. Are you afraid that something bad is going to happen to you?	YES / NO	
9. Do you feel you are worth the same as other people?	YES / NO	
10. Do you often feel helpless?	YES / NO	
11. Do you often get restless and fidgety?	YES / NO	
12. Do you prefer to stay at home rather than going out and doing new things?	YES / NO	
13. Do you feel you have lost some of your memory?	YES / NO	
14. Do you feel you have more problems with memory than most?	YES / NO	
15. Do you think it is wonderful to be alive now?	YES / NO	
16. Do you often feel downhearted and blue?	YES / NO	
17. Do you feel you are not as good as you are now?	YES / NO	
18. Do you worry a lot about the past?	YES / NO	
19. Do you find it very exciting?	YES / NO	
20. Do you have trouble getting started on new projects?	YES / NO	
21. Do you feel you are not as good as you are now?	YES / NO	
22. Do you feel your situation is hopeless?	YES / NO	
23. Do you think that most people are better off than you are?	YES / NO	
24. Do you feel you have lost some of your independence?	YES / NO	
25. Do you frequently feel like crying?	YES / NO	
26. Do you have trouble concentrating?	YES / NO	
27. Do you feel you are not as good as you are now?	YES / NO	
28. Is it easy for you to make decisions?	YES / NO	
29. Is your mind as clear as it used to be?	YES / NO	
	TOTAL	

METHODS

Participants: Both the PHQ-9 and GDS were administered to 100 participants as part of a standard neuropsychological evaluation in a memory clinic population. Among the 100 participants, they were aged 65-93 years ($M = 79.67$, $SD = 6.66$) and 57% identified as female.

Procedures: This study utilized data derived from standard clinically administered tests. Both questionnaires were administered on the same day to participants. Participants were included if they completed all items of both depression questionnaires regardless of diagnosis (e.g., dementia, mild cognitive impairment, within normal limits). Patients' scores on the PHQ-9 and GDS were obtained as part of a brief neuropsychological battery and included as variables in this study.

RESULTS

Using established cutoffs for mild depression on each questionnaire, a Chi-square test of independence determined that there was significant agreement between the PHQ-9 and GDS, $\chi^2(1) = 38.87$, $p < .001$. Specifically, 81% of participants were classified by both questionnaires as either depressed or not depressed. Additionally, a Pearson's correlation revealed that PHQ-9 scores were significantly correlated with GDS scores, $r = .62$, $p < .001$.

DISCUSSION

Results suggest a moderate correlation and degree of agreement between the PHQ-9 and GDS for detecting depression in a memory disorder clinic population. However, 13% of participants were identified as depressed only on the PHQ-9, while 6% were identified as depressed only on the GDS, suggesting that these two questionnaires are assessing depression in slightly different ways (Table 1). Future research should attempt to replicate these findings and determine which instrument is more accurate in diagnosing depression in this population as an effective and time-sensitive depression screener is necessary in these types of settings.

CONCLUSION

The PHQ-9 and GDS both show clinical utility in assessing depression within a memory disorder clinic population. However, results suggest they appear to assess depression in different ways, and thus further research is advised to determine which instrument is most effective in this setting.

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