

Assignment 6.1 – Research Project: Geriatric Depression Scale

Leslie A. Argenta

Department of Counseling, Wake Forest University

CNS 736: Appraisal Procedures for Counselors

Dr. George Stoupas

October 6, 2024

Assignment 6.1 – Research Project: Geriatric Depression Scale

Introduction

The United States is on the threshold of two dramatic demographic changes that will impact the focus of the mental health field: 1) the aging of its population and 2) the increased racial and ethnic diversity of its population. The number of persons aged 65 and over is projected to double, from 34 million, or 13% of the population, in 2000 to nearly 70 million by 2030. Also, by 2030, minority populations are projected to represent one in four older adults, up from 16% in 1998 (Mui et al., 2001). This change of the demographics in the United States cannot be ignored.

Depression is common in late life; and as the elderly population grows, so does the occurrence of depression in the geriatric population. Depression affects nearly 5 million of the 31 million Americans aged 65 and older (Greenberg, 2012). Major depression is present in 5%-10% of the geriatric population internationally (Benedetti et al., 2018). More importantly, depression is perhaps the most frequent cause of emotional suffering in late life and significantly decreases the quality of life in older adults (Blazer, 2003). Depression is one of the important causes of suicide and a leading cause of disability world wide (Huang et al., 2021). Depression, however, is not a natural part of aging (Greenberg, 2012).

Diagnosis of depression in the elderly may be complicated by multiple comorbidity with physical, psychological and cognitive disorders (Costa et al., 2006). For example, depression in the elderly is often accompanied by memory loss and cognitive impairment, symptoms seen less frequently in young people diagnosed with depression (Yesavage et al., 1983). Although difficult to diagnose, accurate and timely diagnosis and treatment of depression in the elderly are important. (Smallbrugge et al., 2008). Undiagnosed and untreated depression in older

individuals accounts for about 20% of suicides, while elderly persons only represent 12% of the total US population (Yesavage, 1991). The lack of treatment is due to the barrier to effectively and correctly diagnose geriatric depression, which is complicated, time consuming and must be completed by a professional psychiatrist (Huang et al., 2021). Unless depression is both diagnosed and treated in elderly populations, little will be done to alleviate the problem of suicide among elderly persons (Yesavage, 1991).

Geriatric Depression Scale Basics

Most existing depression rating scales have been developed and validated in younger populations and their applicability with older persons has not yet been determined. The Geriatric Depression Scale (“GDS-30”) was developed specifically for the assessment of depression in elderly individuals (Yesavage et al., 1983). In developing the GDS-30, Yesavage et al. designed a questionnaire specifically for the geriatric population based on three principles: 1) self-evaluation, 2) easy to answer and 3) orientation and standardization for elderly subjects (1983). The scale, designed in a yes-no format, consists of 30 yes/no items related to the affective and behavioral symptoms of depression (Hays, 2017). Of the 30 questions, 20 indicate the presence of depression when answered positively while ten others indicate depression when answered negatively. Scores range from 0 to 30. Those who report 10 or fewer symptoms are considered normal, 11-20 symptoms are mildly depressed, and 21 or more symptoms are moderately to severely depressed (Mui et al., 2001).

There is concern that comorbid physical disease, functional impairment, and medication use, all of which are known to affect diagnosis of depression in older adults, may inflate scores on depression inventories (Mui et al., 2001). For example, sleep disturbances are common in the nondepressed elderly while rare in younger persons not suffering from depression (Yesavage et

al., 1983). Therefore, the GDS-30 does not include somatic symptoms of depression, and it is especially suitable for detecting depression in old age, as errors of classification due to bad physical health are avoided. A shortened form of the GDS exists that only includes 15 items but the shorter form is not addressed in this paper.

The Original GDS-30 And Its Authors

Yesavage et al. (1983) believed that the primary problem with current depression scales is that they are not originally designed for use with the elderly and rarely have they been properly validated in the older population. Therefore, Yesavage et al. created and tested the GDS-30. The primary purpose for constructing the GDS-30 was to provide a reliable screening test for depression in elderly populations that would be simple to administer and not require the time or skills of a trained interviewer. The subjects were given a clinical interview lasting 30-60 minutes which involved a rating of the GDS-30. The research suggested a high degree of internal consistency for the GDS-30. The findings also provided evidence for the validity of the GDS-30 as a measure of depression in the elderly. Finally, total scores on the GDS-30 were reliable over a one-week interval. These results provide evidence that the GDS-30 is a reliable and valid measure of geriatric depression.

Yesavage et al. (1983) also found that the GDS-30 differentiated depressed from nondepressed elderly in a sample of subjects who all suffered from physical illness. These data provided evidence that the validity of the GDS-30 is not limited to elderly subjects who are physically healthy. In addition, the GDS-30 was found to differentiate depressed from nondepressed elderly undergoing cognitive treatment for senile dementia. This study provided preliminary evidence that the GDS-30 is a valid measure of depression with demented, as well as normal, elderly subjects.

Cross Cultural Assessment of the GDS-30

GDS-30 study populations have been primarily Anglo; and, in general, research shows that the psychometric properties and utility of the English version of the GDS with elderly Anglos is satisfactory (with both sensitivity and specificity scores typically exceeding 80%) (Mui et al., 2001). Research on cross-cultural differences in the experience and expression of depression has received far less attention, particularly in geriatrics. The appropriateness of total standardized scales and specific items, which are typically normed on general populations of Western countries, thus need to be properly evaluated for their applicability to cultural subgroups, within the United States and cross-nationally.

Mui et al. reviewed published studies on the utility and psychometric properties of the GDS-30 with other cultures and ethnicities (2001). Mui et al. found that the studies to date that evaluate the utility of the GDS-30 with elderly persons in different cultural groups are inconclusive (2001). Studies suggest that the reliability of the GDS-30 with diverse elderly populations is satisfactory, but studies on the validity of the GDS-30 with other racial/ethnic groups are less conclusive. Research on the psychometric properties of the GDS-30 suggests that without alterations it may not be sufficiently valid for use with other cultures. Taken together, these studies suggest that the GDS-30 is not adequate for cross-cultural use. More rigorous validation studies are particularly needed to improve the scale's validity in diverse populations of older adults. Pending further research, practitioners should exercise caution in using the GDS-30 when screening for depressive symptoms with diverse groups of older adults, and they should be aware of the limitations. At a minimum, they should recognize that racial/ethnic groups within the US and those from abroad vary considerably in how they experience and express depressive symptoms.

Mild Cognitive Impairment and the GDS-30

A geriatric depression scale should not only be applicable for screening depression in the physically healthy elderly but should also be useful with the physically ill and cognitively impaired (Yesavage et al., 1983). A study by Huang et al. aimed to examine the reliability and validity of the GDS-30 in Chinese cognitively normal elderly, and to preliminarily investigate the appropriateness of the GDS-30 among screened mild cognitive impairment elderly and among the large-scale community dwelling Chinese elderly (2021). The study found that the GDS-30 has good reliability and validity and can be appropriately applied to screen depression in the large-scale community-dwelling Chinese elderly regardless of the presence of mild cognitive impairment. The results showed that the internal consistency of the GDS-30 was satisfactory in the elderly with normal cognition, in the participants with screened mild cognitive impairment, and in the large-scale community-dwelling general elderly. In other words, the GDS-30 has good reliability and validity and can be appropriately applied to screen depression in the large-scale community-dwelling Chinese elderly regardless of the presence of mild cognitive impairment. These findings indicated that 1) the reliability of self-reported depressive symptoms by the GDS-30 does not change as a function of mild cognitive impairment as well as 2) the construct validity of the GDS-30 does not change as the cognitive function. The GDS-30 can be recommended as a screening instrument for depression regardless of the presence of mild cognitive impairment.

Changes in Severity of Depression

It would highly facilitate the management of depressive disorders in nursing homes if one instrument could cover both 1) the screening and 2) the assessment of (change in) severity of depression. In other words, sub-optimal recognition and treatment may be improved by

introducing one instrument for screening and for assessment of treatment effects. Smallbrugge et al. compared three GDS-versions (the 30-, 15- and 8-item versions) on their efficacy as a screening device for depression among nursing home patients, and they compared these three GDS-versions and the MADRS on their ability to measure (changes in) severity of depression (2008). The objectives of this study were to determine the ability of the 30-, 15-, and 8-item versions of the GDS for screening and assessing change in severity of depression in nursing home patients. Smallbrugge et al. determined that all three versions of the GDS can be used for screening depression among nursing home patients (although the shorter versions of the GDS performed less well than the 30-item version). However, the MADRS was superior to the GDS for assessment of (changes in) severity of depression (Smallbrugge et al., 2008). Smallbrugge et al. pointed out that the advantages of the GDS, such as being easier to administer for care personnel and consuming less time than the MADRS, may outweigh the better performance of the MADRS in measuring the severity of depression and are arguments that favor use of the GDS (2008). They concluded that in search of one short and simple instrument that can be used both for screening and for assessment of treatment effects in nursing home patients, the GDS-30 is an acceptable candidate.

Age Specific Assessments

A study by Costa et al. compared the GDS-30 with the General Health Questionnaire (“GHQ”) for screening depression in elderly people (2006). The presumption was that the GDS-30 would perform better than the GHQ because the GDS-30 was designed specifically to evaluate elderly people. This was the first time the GHQ had been used together with the GDS-30 in an older population allowing an explicit test of the assumption that age-specific assessments are necessary to ensure validity and avoid bias in such contexts. Therefore, the aim

of this study was to compare the internal consistency and criterion validity of the GDS-30 and the GHQ against the Schedules for Clinical Assessment in Neuropsychiatry, applying ICD-10 diagnostic criteria (“SCAN”). SCAN is a semi-structured diagnostic interview developed by the World Health Organization, designed to be administered by clinicians. SCAN is considered the “gold standard” in assessing depression. Costa et al. found no difference in performance between the GDS-30 and the GHQ (2006). In this study, neither screen was sufficiently predictive of the Schedules for Clinical Assessment in Neuropsychiatry ICD-10. The GDS-30 performed no better than the GHQ. Brief scales such as the GDS-30 and GHQ, however, still have their place as utilitarian indices of psychological morbidity in health and social research.

Limitations of the GDS-30

First and foremost, it is important to remember that the GDS-30 is not a substitute for a diagnostic interview by a mental health professional. It is purely a screening instrument and a conversation starter. It also does not assess for suicidality which is a huge risk with depression in the elderly. Suicide needs to be seriously considered when working with the older population.

The GDS-30 is not as valid with diverse populations as other depression inventories. Pending further research, practitioners should exercise caution in using the GDS-30 when screening for depressive symptoms with diverse groups of older adults, and they should be aware of the limitations. At a minimum, counselors should recognize that racial/ethnic groups within the US and those from abroad vary considerably in how they experience and express depressive symptoms.

Finally, the issue of how well somatic items measure depression in the elderly and discriminate the depressed from nondepressed is one which deserves further attention. The

GDS-30 has removed somatic symptoms from the equation, but that is not necessarily the best approach.

References

- Benedetti, A., Wu, Y., Levis, B., & Wilchesky, M. (2018). Diagnostic accuracy of the Geriatric Depression Scale-30, Geriatric Depression Scale-15, Geriatric Depression Scale-5 and Geriatric Depression Scale-4 for detecting major depression: protocol for a systematic review and individual participant data meta-analysis. *BMJ Open*, 8(e026598). doi: 10.1136/bmjopen-2018-026598
- Blazer, D. (2003). Depression in late life: review and commentary. *Journal of Gerontology*, 58a(3), 249-265.
- Costa, E., Barreto, S., Uchoa, E., Firmo, J., Lima-Costa, M., & Prince, M. (2006). Is the GDS-30 better than the GHQ-12 for screening depression in elderly people in the community? The Bambui Health Aging Study (BHAS). *International Psychogeriatrics*, 18(3), 493-503.
- Greenberg, S. (2012). The geriatric depression scale (GDS). *Try This: General Assessment Series*, 4, 1-3.
- Hays, D. (2017). *Assessment in counseling: procedures and practices* (6th ed.). American Counseling Association.
- Huang, E., Wang, H., Zhang, J., Du, W., Jia, X., Wang, L., & Zhang, B. (2021). Is geriatric depression scale a valid instrument to screen depression in chinese community-dwelling elderly. *BMC Geriatrics*, 21. doi:10.1186/s12877-021-02266-y.
- Mui, A., Burnette, D., & Chen, L. (2001). Cross-cultural assessment of geriatric depression: a review of the CES-D and the GDS. *Journal of Mental Health and Aging*, 7(1), 137-164.
- Smallbrugge, M., Jongenelis, L., Pot, A., Beekman, A., & Eefsting, J. (2008). Screening for

depression and assessing change in severity of depression. Is the Geriatric Depression Scale (30-, 15- and 8-item versions) useful for both purposes in nursing home patients.

Aging & Mental Health, 12(2), 244-248.

Yesavage, J.A., Brink, T.L., Rose, T.L., Lum, O. Huang, V., Adey, M., & Leirer, V.O. (1983).

Development and validation of a geriatric depression screening scale: A preliminary report. *Journal of Psychiatric Research*, 17(1), 37-49.

Yesavage, J.A. (1991). Geriatric depression scale: consistency of depressive symptoms over time. *Perceptual and Motor Skills*, 73, 1032.