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Introduction

- Major Depressive Disorder (MDD) is a chronic mental illness associated cognitive impairment, various psychiatric/medical comorbidities, and lower overall quality of life¹.
- Women are more vulnerable to depression than men⁸
- Patients with MDD engaging in less **adaptive coping** and more **maladaptive coping** were shown to experience higher levels of depressive symptoms^{2,3}
- Maladaptive coping in women** was shown to strengthen the adverse effects of menopausal symptoms of quality of life⁴
- These inefficient coping strategies contribute to a failure to adequately regulate emotion and may lead to a **more severe course of illness** for patients with mood disorders. This may negatively impact quality of life and the experience of aging for these patients.
- We studied menopausal quality of life in women with MDD, and its relationship to coping styles, and cognitive impairment.

Menopause, Depressive Symptoms, and Coping in Women with MDD

- There is a substantial amount of research examining coping styles in aging people with chronic illness. These findings largely show that adaptive and maladaptive coping strategies mediate the relationship between quality of life and symptoms of disease^{5,6}. Unfortunately, there is a lack of literature of this relationship in aging women with depression.
- J. Zhou et al. (2019) Adaptive coping styles in individuals with mood disorders are shown to be a mediating factor in course of illness⁷.
- H. Bosworth et al. (2003) found that coping styles are associated with perceived stress during the menopausal transition⁹

Methods

- MDD patient sample (n=52, mean age: 59.6 years).
- Participants were administered the Brief-COPE(B-COPE) and Menopausal Quality of Life (MENQOL) questionnaires. In addition, they completed the Matrics Consensus Cognitive Battery (MCCB).
- B-COPE Scores were used to categorize patients based upon the presence of mostly adaptive, or mostly maladaptive coping style. MENQOL is a 32-item questionnaire encompassing both physical and emotional symptoms of menopause
- A multiple regression analysis was used to determine how number of depressive episodes, age of onset of menopause, cognitive functioning, and coping styles influence quality of life.

Results

Table 1. Full Sample Demographic Data

Feature	Mean (SD)
Age (years)	59.6 (8.5)
Education (years)	15.5 (2.9)
Race	13 Non-White (25%)
Premorbid IQ (WRAT)	104.1 (13.3)

Scores on the Wide-Range Achievement (WRAT) were used to determine premorbid IQ

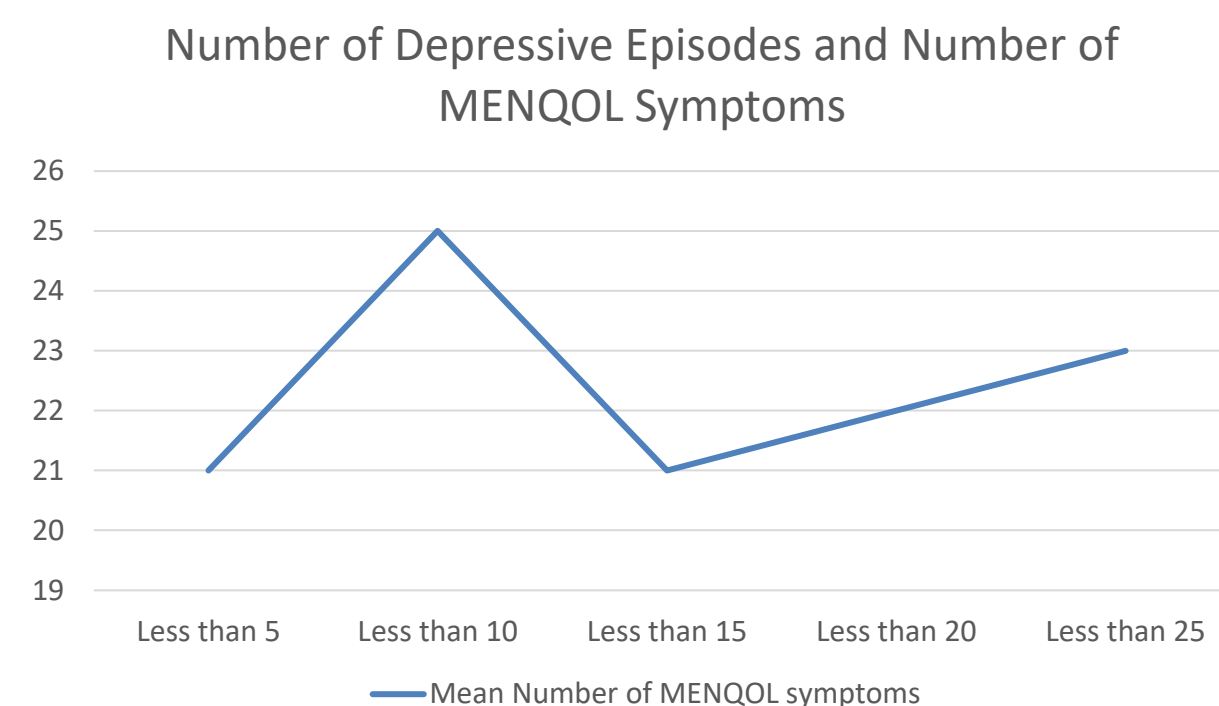


Figure 1. After controlling for age of dx of MDD, the data shows that there is a slight, significant positive correlation between depressive episodes and number of menopausal symptoms.

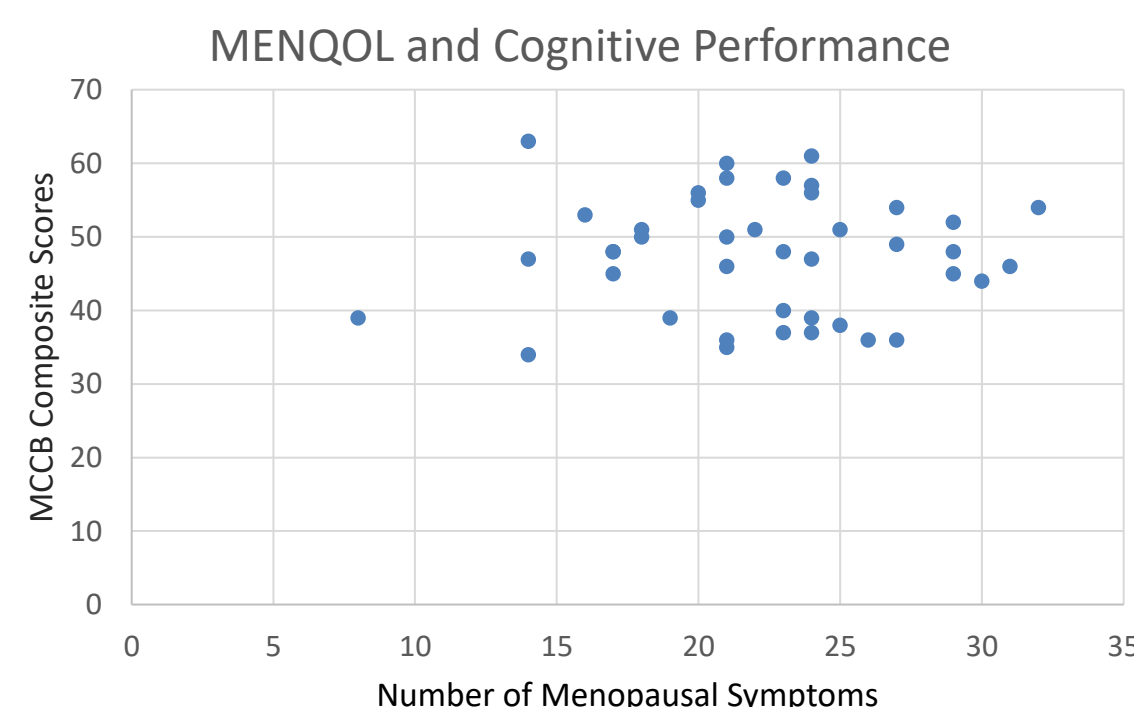


Figure 2. After controlling for education, current age, premorbid IQ, and age of depression dx, women with MDD who reported having more menopausal symptoms, performed worse on the following cognitive tasks: TMT, BACS-SC, BVM-T-R, and Fluency ($p < 0.05$). Speed of Processing and Visual Learning Domains were impaired ($p < 0.05$). There was no significant difference in total MCCB composite scores.

Results Summary

- Overall, there was no significant associations found between coping style and cognitive performance. However, MDD women with more adaptive coping styles performed better in the following tasks of the MCCB: WMS-III, BVM-T-R, and MSCEIT (Social Cognition), than women with more maladaptive coping. In particular, women who scored high in the Self Blame category of maladaptive coping performed worse than their counterparts in tasks of Social Cognition and Attention Vigilance.
- Patients with more menopausal symptoms tended to exhibit more depression symptomology ($p < 0.05$).
- Individuals with more menopausal symptoms tended to perform worse on select MCCB tasks (Figure 2), particularly those who reported: Feeling tired/worn out, Aches in muscles and joints; Feeling depressed, down or blue; Accomplishing less than I used to; Feeling anxious or nervous; Dissatisfaction in personal life, and/or Vaginal bleeding or spotting.

Discussion and Limitations

- As the menopausal transition places women at risk for depression and cognitive decline, this is a critical window to study, particularly in those with a recurrent mood disorder.
- Our results support the hypothesis that both depression and cognitive impairment contribute to lower quality of life.
- Aspects that are related to reproductive status will be further analyzed, as will hormonal levels and inflammation-based biomarkers to better understand the biological risk factors for poor outcome.
- Larger cohort studies could further examine this relationship, and help researchers and clinicians better understand the experience of aging in psychiatric populations.

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