Cognitive Symptoms of Midlife Women and Their Influencing Factors in Four Racial/Ethnic Groups

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Purpose: In midlife, memory problems are commonly reported mainly due to aging process. Especially among midlife women in menopausal transition, a decrease in estrogens reportedly has salutary neurophysiologic effects that are harmful to women's cognition. Subsequently, the decrease of estrogens in menopausal transition could result in alternations in cognitive symptoms of midlife women. Furthermore, vague racial/ethnic differences in hormone levels during the menopausal transition could still influence midlife women's cognitive symptoms differently in different racial/ethnic groups. In addition, multiple contextual factors could differently affect midlife women's cognitive symptoms in different racial/ethnic groups. The purpose of this secondary analysis was to determine differences in cognitive symptoms of midlife women by race/ethnicity among four major racial/ethnic groups in the U.S. and to determine the contextual factors that differently affect the women's cognitive symptoms in different racial/ethnic groups.

Methods: For this secondary analysis, the data from two larger national studies among 1,054 midlife women (316 Non-Hispanic [NH] Whites, 255 Hispanics, 250 NH African Americans, and 233 NH Asians) were included. The instruments used in the original study included: mulitple questions on background characteristics and health and menopausal status, and the Cognitive Symptom Index for Midlife Women (CMW). The CMW was adopted from the Midlife Women's Symptom Index (MSI), and was consisted of 21 items on cognitive symptoms. The reliability of the CMW was: KR-20=.87 for the prevalence sub-scale and Cronbach's alpha=.91 for the severity sub-scale. The data analysis methods included: Chi-square tests, ANOVA, multiple logistic regression analyses, and Poisson regression analysis.

Results: Significant racial/ethnic differences were found in the total severity scores of cognitive symptoms (p<.01). In post-hoc tests, NH Asians (27.61±20.18) had significantly lower total severity scores compared to any other racial/ethnic groups (p<.05). There existed significant main effects of race/ethnicity and menopausal status on both total numbers and total severity scores of cognitive symptoms (p<0.05). However, no significant interactions between race/ethnicity and menopausal status were identified in their relations to cognitive symptoms. Across the racial/ethnic groups, low educational level, divorced/single, very low and somewhat low family income, pre- and peri-menopausal status, and the use of medication were positively related to the total numbers of cognitive symptoms while post-menopausal status was negatively related to them (p<0.05). In NH White women, low educational level, divorced/single, and very low and somewhat low family income were positively related to the total numbers of cognitive symptoms while age and BMI (obese>30) were negatively related (p<0.05). In Hispanic women, employment and peri-menopausal status were positively related to the total numbers of cognitive symptoms. In NH African American women, very low and somewhat low family income and pre- and peri-menopausal status were positively related to the total numbers of cognitive symptoms, while married/ partnered was negatively related to them (p<0.05). Among NH Asians, low educational level, very low and somewhat low family income, and peri menopausal status were positively related to the total numbers of cognitive symptoms (p<0.05).

Conclusions: This analysis supported significant relationships between race/ethnicity and midlife women's cognitive symptoms during their menopausal transition. Considering the limitations of the study as a secondary analysis, we suggest further studies on racial/ethnic differences in cognitive symptoms with diverse racial/ethnic groups of midlife women.

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Abstract Summary:

The purpose of this presentation is to report the findings of a secondary analysis on racial/ethnic differences in cognitive symptoms among four major racial/ethnic groups of midlife women in the U.S. and to discuss the contextual factors that differently affect the women's cognitive symptoms.

Content Outline:

-Background

-A brief literature review on cognitive symptoms of midlife women and their related factors

-Purpose statement

  -Purpose of the study

  -Hypotheses tested

  -Theoretical basis

-Methods

 -Study design: A secondary analysis

 -Samples and settings

 -Instruments

 -Data selection and analysis methods

-Findings

  -Racial/ethnic differences in cognitive symptoms

  -Contextual factors influencing cognitive symptoms

-Discussions

-Conclusions and implications for future research and health care

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