

# Racial Variation in Depression Risk Factors and Symptom Trajectories among Older Women

*Shun-Chiao Chang, Sc.D., Wei Wang, Ph.D., An Pan, Ph.D., Richard N. Jones, Sc.D.,  
Ichiro Kawachi, M.D., Ph.D., Olivia I. Okereke, M.D., S.M.*

---

**Objective:** *To assess racial variation in depression risk factors and symptom trajectories among older women. Methods:* Using Nurses' Health Study data, participants (29,483 non-Hispanic white and 288 black women) aged 60 years or older, free of depression in 2000, were followed until 2012. Data on race and risk factors, selected a priori, were obtained from biennial questionnaires. Incident depression was defined as depression diagnosis, antidepressant use, or presence of severe depressive symptoms. Group-based trajectories of depressive symptoms were determined using latent variable modeling approaches. **Results:** Black participants had lower risk (hazard ratio: 0.76; 95% confidence interval: 0.57-0.99) of incident late-life depression compared with whites. Although blacks had higher prevalence than whites of some risk factors at study baseline, distributions of major contributors to late-life depression risk (low exercise, sleep difficulty, physical/functional limitation, pain) were comparable. There was evidence of effect modification by race for relations of region of birth (Southern birthplace), smoking, and medical comorbidity to depression risk; however, wide confidence intervals occurred among blacks because of smaller sample size. Four trajectories were identified: minimal symptoms-stable (58.3%), mild symptoms-worsening (31.4%), subthreshold symptoms-worsening (4.8%), and subthreshold symptoms-improving (5.5%). Probabilities of trajectory types were similar for blacks and whites. **Conclusion:** Although overall trajectories of late-life depressive symptoms were comparable by race, there was racial variation in depression risk estimates associated with less-studied factors, such as U.S. region of birth. Future work may address unmeasured health and resilience determinants that may underlie observed findings and that could inform clinical assessment of late-life depression risk factors. (Am J Geriatr Psychiatry 2016; ■■■:■■■-■■■)

**Key Words:** race, geriatric, depression, mood, trajectory, longitudinal, epidemiology

---

---

Received February 16, 2016; revised July 6, 2016; accepted July 7, 2016. From the Channing Division of Network Medicine, Department of Medicine (S-CC, OIO); Division of Sleep and Circadian Disorders, Departments of Medicine and Neurology (WW), Brigham and Women's Hospital and Harvard Medical School, Boston, MA; School of Public Health (AP), Tongji Medical College, Huazhong University of Science and Technology, Wuhan, Hubei, China; Aging Brain Center (RNJ), Hebrew SeniorLife, Institute for Aging Research, Boston, MA; Department of Psychiatry and Human Behavior (RNJ), Warren Alpert Medical School, Brown University, Providence, RI; Department of Social and Behavioral Sciences (IK), Harvard T. H. Chan School of Public Health, Boston, MA; Department of Psychiatry (OIO), Brigham and Women's Hospital and Harvard Medical School, Boston, MA; and Department of Epidemiology (OIO), Harvard T. H. Chan School of Public Health, Boston, MA. Send correspondence and reprint requests to Dr. Olivia I. Okereke, Channing Division of Network Medicine, Brigham and Women's Hospital and Harvard Medical School, 181 Longwood Avenue, Boston, MA 02115. e-mail: [ookereke@partners.org](mailto:ookereke@partners.org)

© 2016 American Association for Geriatric Psychiatry. Published by Elsevier Inc. All rights reserved.

<http://dx.doi.org/10.1016/j.jagp.2016.07.008>

## INTRODUCTION

Depression is a common and life-impairing problem in older adults.<sup>1</sup> Even with appropriate treatment, residual symptoms and dysfunction frequently occur.<sup>2</sup> Although racial differences in late-life depression (LLD) prevalence have been reported,<sup>3-8</sup> the important issue of whether there are race differences in the distributions and relative contributions of risk factors to LLD is less understood. Such work is pivotal to optimizing depression prevention strategies in diverse older populations.

Prior studies that investigated racial differences in the frequencies of LLD risk factors<sup>3,4,7-13</sup> showed that non-Hispanic blacks had more chronic conditions, functional limitations, unfavorable lifestyle behaviors (e.g., cigarette smoking and physical activity), and relative economic disadvantages compared with non-Hispanic whites. However, most studies were cross-sectional; all included both depressed and nondepressed individuals, which can influence frequency estimates. Furthermore, despite lower reported risk of depression in blacks compared with whites,<sup>4,8,14</sup> no studies, to our knowledge, have comprehensively examined potential race/ethnic differences in the impact of risk factors on incident LLD.

Additionally, emerging research has emphasized the importance of temporal variations of symptoms over time to identify underlying heterogeneity of depression.<sup>15,16</sup> Evaluation of long-term symptom trajectories in blacks and whites may help identify subpopulations with different symptomatology and risk factors. Three studies have examined racial variations in depressive symptoms trajectory longitudinally; however, these studies adjusted for a few risk factors (such as income, marital status, functional status and health),<sup>16-18</sup> and behavioral risk factors for LLD were not incorporated. Furthermore, results from these studies suggested that racial variation in trajectories may have been largely confounded or mediated by frequently observed disparities in socioeconomic status between blacks and whites in the United States.<sup>19</sup>

In separate work, we observed that multiple social stressors, unfavorable lifestyle behaviors, and poor health conditions were significantly associated with higher depression incidence in older women. To address the above-mentioned gaps in the literature, we now extend this work to address potential race differences

in prevalence of the risk factors at baseline and their contributions to development of LLD prospectively and investigate potential race differences in 12-year trajectories of late-life depressive symptoms among a socioeconomically comparable group of black and white older women and whether there are differential relations by race of the risk factors to symptom trajectories.

## METHODS

### Nurses' Health Study

The Nurses' Health Study (NHS) began in 1976 when 121,700 U.S. female nurses, aged 30–55 years, returned a mailed questionnaire regarding lifestyle and medical history. Participants have received questionnaires biennially since then. The institutional review board of Brigham and Women's Hospital approved the study.

### Measures

#### *Risk Factors*

All potential risk factors examined in this study were collected from NHS questionnaires and selected *a priori* from either previous NHS findings or other literature:<sup>20-24</sup>

- (1) *Demographic*: Age (in years); education (RN associate versus bachelor's or higher degree); living alone; census-tract median household income; birth region
- (2) *Psychosocial*: Social network, measured by the Simplified Berkman-Syme Social Network Index (quintiles);<sup>25</sup> subjective social standing (measured using a 10-point visual analog scale representing social standing in U.S. society);<sup>26</sup> hours of regular caregiving to children/grandchildren and/or to ill relatives
- (3) *Lifestyle/behavioral*: Current smoking status; physical activity (validated in NHS,<sup>27</sup> measured as average hours/week in moderate or vigorous exercise); heavy or binge drinking (having  $\geq 3$  drinks in a single day during a typical month in the past year)
- (4) *Health/medical*: Body mass index (in kg/m<sup>2</sup>); medical comorbidity burden (having  $\geq 2$  major chronic diseases);<sup>28</sup> difficulty falling/staying asleep (frequency categories: none to all of the

Download English Version:

<https://daneshyari.com/en/article/5626050>

Download Persian Version:

<https://daneshyari.com/article/5626050>

[Daneshyari.com](https://daneshyari.com)