

# Psychosocial Protective Factors in Cognitive and Brain Aging

<https://www.neurodegenerationresearch.eu/survey/psychosocial-protective-factors-in-cognitive-and-brain-aging/>

## Principal Investigators

ZAHODNE, LAURA B

## Institution

UNIVERSITY OF MICHIGAN

## Contact information of lead PI

### Country

USA

## Title of project or programme

Psychosocial Protective Factors in Cognitive and Brain Aging

## Source of funding information

NIH (NIA)

## Total sum awarded (Euro)

€ 926,780.73

## Start date of award

30/09/2016

## Total duration of award in years

3

## The project/programme is most relevant to:

Alzheimer's disease & other dementias

## Keywords

Acquired Cognitive Impairment... Aging... Alzheimer's Disease... Alzheimer's Disease including Alzheimer's Disease Related Dementias (AD/ADRD)... Basic Behavioral and Social Science... Behavioral and Social Science... Brain Disorders... Clinical Research... Clinical Research - Extramural... Dementia... Epidemiology And Longitudinal Studies... Mental Health... Mind and Body... Minority Health for IC Use... Neurodegenerative... Neurosciences

## Research Abstract

DESCRIPTION (provided by applicant): Identifying potential targets for interventions to reduce age-related cognitive morbidity in diverse elders is of critical importance to the rapidly expanding aging population in the U.S. Substantial evidence from observational studies suggest that modifiable positive psychosocial factors (i.e., well-being, self-efficacy, social support) are associated with better cognitive functioning among older adults. These effects are independent of negative affect (e.g., depression). However, little attention has been given to subgroups of older adults who are particularly vulnerable to age-related cognitive morbidity: African Americans, Hispanics, and individuals with mild cognitive impairment (MCI). In addition, it is unclear whether these positive psychosocial factors buffer against the negative cognitive effects of brain pathology, as measured with structural magnetic resonance imaging. This K99/R00 proposal lays the foundation for an independent research career focused on characterizing the mechanisms underlying psychosocial factors that protect against age-related cognitive morbidity among a diverse population. Together, the research and training plans will provide the applicant (1) supplementary training in modeling neuroimaging biomarker data in an aged population, (2) broader experience with psychosocial variables in aging, and (3) a strong foundation in cross-cultural neuropsychology. These experiences will supplement the applicant's strong existing background in geriatric neuropsychology and quantitative methods. The research plan expands an existing community-based longitudinal study of multi-ethnic older adults at Columbia University. This diverse population is followed every 18-24 months with cognitive testing, medical evaluation, health measures, and consensus diagnoses of MCI/dementia. A subset receives structural neuroimaging. This proposal adds well-validated, computer-based measures of psychosocial functioning and cognition from the NIH Toolbox. Cross-sectional and longitudinal structural equation models (SEM) will test relationships between positive psychosocial factors, cognition, and quantitated measures of hippocampal volume, regional cortical thickness, white matter hyperintensity volume, and infarcts. The primary goal is to characterize the role of positive psychosocial factors in late-life cognitive decline and to determine whether they reduce the impact of structural MRI markers of brain pathology on cognitive functioning.

### **Lay Summary**

**PUBLIC HEALTH RELEVANCE:** Characterizing potential intervention targets to reduce age-related cognitive morbidity in diverse elders is of critical importance to the U.S. aging population. This proposal aims to determine which positive psychosocial factors (1) buffer the impact of brain pathology on cognition and (2) protect against cognitive decline in older adults of different racial/ethnic backgrounds and cognitive abilities.

### **Further information available at:**

#### **Types:**

Investments > €500k

#### **Member States:**

United States of America

#### **Diseases:**

Alzheimer's disease & other dementias

#### **Years:**

2016

**Database Categories:**

N/A

**Database Tags:**

N/A