

# **SOCIAL RELATIONSHIP QUALITY, DEPRESSION AND INFLAMMATION: A CROSS-CULTURAL LONGITUDINAL STUDY IN THE UNITED STATES AND TOKYO, JAPAN**

Alan Teo, MD, MS

Center to Improve Veteran Involvement in Care, VA Portland Health Care System; and Oregon Health & Science University  
Portland, OR

**Background:** Depression is an illness with biological, psychological, and social underpinnings, which may include the interplay of inflammation, psychological traits, stress, social relationships, and cultural background.

**Aims:** This work examines the prospective associations between social relationship quality and depressive symptoms, and between social relationship quality and inflammatory outcomes in two distinct cultures.

**Methods:** Data were obtained from two longitudinal, prospective cohort studies: Midlife in the United States (MIDUS), and Midlife Development in Japan (MIDJA) between 2004 and 2010. One thousand three hundred and twenty-seven community-based adults were included in analyses, 1,054 from the United States and 273 from Tokyo, Japan. Depressive symptoms (measured by the CES-D Depression Scale) and inflammation (measured by blood sample concentrations of the inflammatory biomarkers interleukin-6 and C-reactive protein) were the outcomes. Social relationship quality was the predictor. Culture, trait independence and interdependence, and psychosocial stressors were examined as moderators of the link between social relationship quality and depressive symptoms.

**Results:** Higher social relationship quality was associated with lower depressive symptoms in the United States ( $\beta = -6.15$ ,  $p < .001$ ), but not in Japan ( $\beta = -1.25$ ,  $p = .390$ ). Social relationship quality had no association with inflammation. Psychosocial stressors moderated the link between social relationship quality and depressive symptoms in both the United States ( $\beta = -0.39$ ,  $p = .001$ ) and Tokyo ( $\beta = -0.55$ ,  $p = .001$ ), such that social relationship quality acted as a buffer against depressive symptoms as psychosocial stress increased.

**Discussion:** Improving the perceived quality of social relationships appears to be a stronger target for depression interventions in the United States than in Tokyo, Japan.

## Full List of Authors

Benjamin Kaveladze, Allison Diamond Altman, Meike Niederhausen, Jennifer M Loftis, and Alan R Teo

## Learning Objectives

At the conclusion of this presentation, participants will be able to:

1. Evaluate the association between the quality of social relationships and depressive symptoms among community-residing adults in Japan versus the United States.
2. Assess how psychosocial stressors and social relationships may interact and impact the presentation of depressive symptoms in different cultures.