

Stress Measurement Network Roundtable at the American Psychosomatic Society Annual Meeting, March 10th, 2016

The roundtable began with introductory remarks from George Slavich, who provided an overview of the Stress Measurement Network and introduced the roundtable speakers. After the introduction, Lis Nielsen discussed the formation of the Stress Measurement Network. In particular, Dr. Nielsen named some of the key challenges in current stress research that the Stress Measurement Network aims to address. These challenges include how to: 1) improve measurement of stress appraisals; 2) retrospectively capture life course stress; 3) analytically assess cumulative stress; 4) leverage new technologies/methods; 5) better utilize existing data; and, 6) account for individual differences in stress reactivity.

Aric Prather discussed the Stress Measurement Network initiative to fund pilot studies, with the main goal of incentivizing analysis of existing or new data to improve the measurement of stress. Dr. Prather provided examples of currently funded pilot studies, including: 1) a quantitative approach to determine which stress measures are related to health outcomes in both MIDUS and HRS population based datasets; 2) research on brain systems associated with self-report measures of perceived stress; and 3) development of an implicit associations test to measure stress exposure in chronically stressed populations led by Dr. Wendy Berry Mendes.

Tara Gruenewald spoke about the harmonization goal of the Stress Measurement Network – specifically, using population-based datasets to determine which measures of stress predict mental and physical health. Many stress measures already exist in population-based studies of aging and health. Stress researchers can utilize these existing data to assess which methods of stress measurement, types of stress (e.g. chronic vs. acute), and domains of stress, are best to include in large epidemiological studies (based on how much variance in outcomes they predict). To that end, Dr. Gruenewald discussed the creation of a guidebook (G2 gateway) that houses data from the Health and Retirement Study (HRS) and the HRS family of studies. Researchers interested in different stress measures and health outcomes will soon be able to request these data on harmonization website hosted by USC (www.g2aging.com).

George Slavich discussed the ongoing development of two stress measurement tools. The first is a short and scalable self-report measure of stress called the Subjective Stress in Context (SSiC) measure. It is a short self-report measures of both exposure and perception of objectively stressful experiences (e.g. sense of danger in the environment). The Network is funding the development of this scale so that a short well-validated stress scale can be recommended to PIs of large-scale studies (including cross-cultural studies). The second measure is the stress and adversity inventory (STRAIN), an online system for assessing life-long stress exposure. The goal of the STRAIN is to measure the accumulation of stress and predict biological and health outcomes using adaptive computer technology.

After these remarks, the speakers opened up the discussion for questions from attendees. One attendee voiced concern about the development of short and scalable self-report measure of stress; specifically, he noted that it seems reductive to develop a single measure for a concept as complex as stress. Another attendee asked whether the G2 database has data on a broad range of health outcomes, such as functional disorders. A third individual noted that a good way of understanding stress exposure is by asking close others; specifically, she wanted to know whether the G2 database contains spousal reports of stress measurement. Lastly, one attendee brought up the importance of having a good definition of stress; she inquired whether the Stress Measurement Network has created a working definition of stress or stress reactivity. Indeed, in previous seminars funded by the NIA, a *Stress Typology* was developed by field experts to work towards a common use of language related to stress exposure, stress reactivity, and stress response. This document has yet to be published but may be requested by emailing Alexandra.Crosswell@ucsf.edu.