

Stress Measurement Network Guiding Questions
April 2015

This is a preliminary list of the guiding questions that will drive the Network's work. This is a sampling of what we are interested in. If you are considering submitting a pilot project proposal, please contact one of the Network as we can work with you to find a project that suits both your interests and the interests of the Network.

What are the best short **self-report** measures of life stress exposure and stress reactivity with respect to predicting long term physical health?

What **aspects of stress exposure** (e.g., interpersonal, family environment) and stress reactivity (e.g., cognitive, emotional, autonomic, neural, neuroendocrine, immune) are most critical to assess?

What types of stressors, or tests, challenges, and scenarios, are most useful for revealing differences in **vulnerability to stress** with respect to risk for physical health outcomes or early markers of disease?

What theoretical or conceptual model is most useful for guiding the selection of measures for assessing stressor exposure and stress reactivity? Relatedly, how should we conceptualize the aspects of the stress response process (appraisal, emotion regulation, rumination)? Should we think of these psychobiological processes as single biomarkers in the sense that they represent aspects of the *stress response* or *signatures of the biological embedding of stress exposures*, but don't capture the whole picture (like IL-6 to inflammation)?

What are the most important **moderators** (amplifiers and buffers) of relationships between stress and health (e.g., personality, environmental, socio-demographic factors, etc.)?

What aspects of stress exposure (e.g., interpersonal, family environment) and stress reactivity (e.g., cognitive, emotional, autonomic, neural, neuroendocrine, immune) are most critical to assess?

How do individual differences in cognitive and emotional appraisal and physiological reactivity shape later life health? How stable are they over years?

How might these measures translate to surveys?

How do assessments from the moment, day, week, or cumulative exposure relate to each other, and to health? How independent are they?

Which are the most important time frames to assess in terms of understanding stress vulnerability and aging trajectories?

How might these measures translate to surveys?

What can we learn about the stress process from looking at regional and international differences and across socio-demographic groups (note: see <http://grants.nih.gov/grants/guide/pa-files/PA-13-125.html>)?

What are the most important questions about stress and health from population studies that we should focus on?

How can we make the short stress measure we are creating appropriate cross-culturally?

Can we learn about the landscape of stress across populations and how it might differ or increase over time? Specifically, how do the common stress measures look across socio-demographic groups (sex, ethnicity, age) measures in different studies and different countries?

How does the correlation between stress (exposure or perception or appraisal of stress) and poor health differ by socio-demographic group (e.g. by age, gender, race, education level) or cultural factors?

Other areas:

1) Aging specific questions:

Are there certain types of life stressors that lead to a stronger coupling between heightened perceptions of stress or physiological responses and aging?

Do certain life histories/conditions result in subjective experiences and physiologic responses that are more tightly linked in aging? Does this make individuals more vulnerable to stress-related aging?

How can we understand the paradox of stress and aging? Specifically that when comparing older to younger adults, there tend to be either no differences or improvements with age in many aspects of stress appraisal and coping, however, at the same time, there is greater exposure to certain types of chronic stressors that threaten well-being and greater physiological vulnerability to the effects of acute stressors in older adults.

2) Intervention:

What aspects of the stress exposure or response are most malleable? Appraisal? Cortisol reactivity?

What evidence do we have that we can influence or alter the negative effect of chronic stress exposure or heightened stress reactivity?

How can the emotional or physiologic acute stress response be modified in the moment?

3) Stress and health behaviors (Puterman):

How does acute stress change behavior?

Which types of stress affect promotion vs prevention behaviors?)

4) Early life exposures (Seeman; will coordinate with Reversibility network):

What is the best way to measure early life exposures? Most reliable? Most meaningful?

How does early adversity feed into chronic stress processes?

Given the importance of early life stress in adult health, are there critical periods and types of exposures that we should be assessing?