# Psychosocial Stress Exposure: Real-Time and Structured Interview Technologies

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Accumulating evidence is consistent with the possibility that psychosocial stress may moderate the effects of genetic factors on health and behavioral outcomes. Further advances in this area are predicated on the development of standardized, psychometrically sound instruments for quantifying exposures to psychosocial stress. Over the past several years, our research team has pioneered several state-of-the-art strategies for the assessment of psychosocial stress, including a new structured retrospective interview approach designed to quantify historical exposure to chronic stressors in human populations, and a real-time ecological momentary assessment (EMA) method designed to capture current psychological and physiological markers of mental stress as they emerge over the course of daily living. Building upon our ongoing experience and expertise, the goal of the current project is to translate each of these two assessment approaches into standardized field-deployable technologies that can be employed across multiple sites and populations. The current project is organized around a series of incremental studies that are designed to help us meet the following milestones: a) to develop efficient electronic data collection devices for administering, recording, and scoring self-report assessments relevant to each of these two novel assessment approaches; b) to refine the item content associated with each of these two data collection devices in a manner that will enhance validity, reliability, and item discrimination of the associated measures; c) to examine the reliability of the resulting instruments in a population representative sample and to determine optimal conditions of testing; and d) to document training and testing procedures associated with these methods, and to examine the feasibility of pursuing the development of relevant production quality devices for use in large scale research projects.

RELEVANCE: In the presence of gene-environment interactions, reliable measures of environmental exposure, including exposure to psychosocial stress, are critical for quantifying the effects of genetic differences on health outcomes.