

Symposium 08

Early life stress: risk factor or protective effect?

Chair:
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The negative effects of early life stress are well-recognized in contemporary studies of human health. Far less researched, but of equal importance, are indications that moderate levels of early life stress do not necessarily increase vulnerability but instead enhance resilience. Here we present results from studies of early life stress, vulnerability, and resilience in postnatal development.

Behavioral, hormonal, and cardiovascular measures of stress, vulnerability, and resilience are presented from developmental studies of humans and animal models.

Lyons presents three different views toward early life stress and the development of vulnerability and resilience. Macri then describes how the hypothalamic-pituitary-adrenal (HPA) axis regulation in rodents is non-linearly related to early-life environmental challenges, with elevated stress increasing vulnerability to pathology and mild challenges favoring resilience. Parker explains how early intermittent separations that simulate a naturally occurring but stressful condition consistently diminish subsequent stress-levels of cortisol in monkeys irrespective of differences in measures of maternal care. Ellis considers the extent to which genotypic variation in the DRD4 gene, endophenotypic variation in stress reactivity, and phenotypic variation in negative emotionality moderate the effects of early adversity in the context of human development.

Certain forms of early life stress promote the development of arousal regulation and resilience. Conversely, too much or no prior exposure to early life stress increases vulnerability to subsequent stress and related mental health disorders.