

SEX DIFFERENCES IN THE STRESS RESPONSES OF CHILDREN AFFECTED BY HURRICANE KATRINA

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ABSTRACT

Children and young adults between the ages of 11-21 years that were displaced by Hurricane Katrina and currently living in a large relocation camp ($n = 68$) were compared to a sample of demographically matched controls ($n = 63$) on two measures of physiological distress (salivary cortisol and alpha-amylase, AA), and self-reported symptoms of distress, depression, anxiety, aggression, self-evaluations, self-esteem, and life-satisfaction. The Katrina sample reported lower anxiety and showed lower cortisol levels than the controls. Similarly, females reported lower anxiety and showed lower cortisol levels than males. Multivariate regressions showed that hurricane experience and sex moderated the relations between cortisol and AA and many internalizing and externalizing behaviors, including aggression and symptoms of depression and distress. In general, salivary cortisol and AA were differentially related to distress behaviors in males and females, suggesting a dynamic interplay between normative sex differences in multiple components of psycho-physiological arousal and behavioral manifestation of internalizing and externalizing behaviors. The findings are interpreted from a broad socio-relational framework of social behavior, which suggests that the human stress response system may have evolved, in part, to modulate the formation and maintenance of different types of social relationships. If so, then phenotypic variation in the expression of distress behaviors such as aggression and depression may change with changes in condition of the individual, including recent life-experiences and sex-typical social interaction styles.