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Neuroendocrinology and Mental Health Consequences of War-Related Trauma: An Illustrative Review

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Abstract

We are currently experiencing the greatest refugee crisis since World War II (United Nations High Commission for Refugees, 2016). It is important to understand how war-related trauma impacts psychological and physiological health. The purpose of our review was to synthesize existing research that examines physiological indicators of stress (particularly cortisol) and the mental health consequences of war-related trauma. Cortisol is a physiological by-product of the hypothalamic-pituitary-adrenal gland (HPA-axis) and has been widely used to measure stress reactions. The psychological variables of interest were Post-Traumatic Stress Disorder (PTSD), responses to reminder cues, coping strategies, and different types of trauma (e.g., concentration camps; war; rape) across development. All articles included in the review were found using the PsycINFO database. Articles were included if it was a published, peer-reviewed empirical article that included cortisol measurements (saliva or blood) in relation to psychological variables among war-related trauma participants (including refugees, but excluding veterans). Overall, results demonstrated decreases in cortisol levels in response to reminder cues and among participants with PTSD. Negative coping strategies were also associated with lower cortisol levels. More longitudinal research is needed on the physiological impact of trauma so that prevention and intervention programs intended to support these individuals are strengthened.

This student presentation is available at ScholarWorks: https://scholarworks.boisestate.edu/as_17/38
Neuroendocrinology and Mental Health Consequences of War-Related Trauma: An Illustrative Review

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I. Background

The objective of the study is to summarize research on refugees and related immigrants in regards to stress-responses measured by cortisol levels and to identify physiological and psychological responses that promote and hinder the transition of resettlement.

- Refugees and similar immigrants experience traumatic events before and after resettlement.
- The Family Stress Model (Masarik & Conger, 2017) was used to describe the stress pathways that hinder educational outcomes in youth as well as factors that promote resilience (Figures 1 and 2).
- The variables being assessed: cortisol responses, coping strategies, PTSD (Posttraumatic Stress Disorder), and the type of trauma.

II. Method

- We searched and selected articles for review through scholarly databases (e.g., PsycINFO).
- Selection criteria:
  - Cortisol measurements (either saliva or plasma collections)
  - Psychological variables (e.g., coping styles, stress responses)
  - Victims of war-related trauma including refugees and other immigrants, but excluding war veterans.

III. Key Points

- There were many inconsistencies within cortisol responses and coping strategies.
- Cortisol levels in participants that were diagnosed with PTSD, or met the PTSD classification were lower or blunted in response to reminder cues.
- Inconsistent data was found regarding the type of trauma experienced and cortisol levels (i.e. different traumas sometimes showed lower/higher cortisol responses however some groups did not differ).
- Plasma and saliva collections differed in which plasma collection of cortisol was measured and to identify inconsistencies within cortisol responses and coping strategies.

IV. Issues in Research

- Timing of cortisol responses were measured inconsistently throughout the included research.
- There was a lack of control groups that matched the population samples.
- The issues that refugees and similar immigrants faced are often challenges encountered before as well as after the resettlement process.
- Refugees often rely on self-coping strategies as well as community support to overcome the obstacles of resettlement therefore, community attitudes on refugee resettlement can act as powerful barriers or offer successful opportunities during transition (Portes, 1995).
- There is a gap in research on trauma type (adult vs. child).

V. References

- Adenauer, M., & Kellner, M. (2014). Protective factors that are hypothesized to promote resilience in the face of stress (see Figure 1). Dashed arrows play protective roles, whereas solid arrows represent direct (compensatory) effects. 

For further questions please direct them to cierraabella@boisestate.edu