Adverse and traumatic exposures, posttraumatic stress disorder, telomere length, and hair cortisol - Exploring associations in a high-risk sample of young adult residential care leavers.

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Childhood adversities (CAs), potentially traumatic exposures (PTEs), and posttraumatic stress disorder (PTSD) are known to increase the risk for poor health outcomes, including diseases of aging and early mortality. Telomere length (TL) and hair cortisol concentrations (HCC) are biomarkers known to be associated with CA and PTEs, and PTSD, but there is considerable heterogeneity in findings.; This study aims to investigate the association of CAs, PTEs, and PTSD with TL and HCC in a high-risk sample of young adults who were previously placed in youth residential care institutions throughout Switzerland.; Our sample includes 130 participants (30.8% women, M; Age; ă=ă26.5ăśă3.7 years) with previous youth residential care placements (M; Placements; =ă3.9). CAs and PTEs, as well as PTSD, were assessed with self-reported questionnaires and semi-structured clinical interviews. Immune cell TL was measured with quantitative polymerase chain reaction (qPCR) in whole blood. Hair samples were collected for HCC measurement and assayed with high-sensitivity ELISA. Multivariate regression models were fitted to describe the associations between CAs, PTEs, and PTSD with TL and HCC, adjusting for covariates.; In our high-risk sample, a higher burden of CAs, PTEs, Criterion A trauma, and PTSD was associated with longer TL. PTEs, Criterion A trauma, and PTSD were associated with lower HCC, however no significant associations between CAs and HCC were found. The magnitude of these effects varied depending on the dimensional or categorical nature of the stress-phenotype and the specific measure used.; Our findings are in contrast with many, but not all, previous studies of associations between adversity and both TL and HCC. For instance, our findings are in line with other studies that find a state of hypocortisolism in PTSD. Better measurement of adversities and trauma, multisystem biomarker approaches, and more research in larger high-risk samples at the upper end of the adversity-continuum is warranted.

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