

Early life adversity associated with enhanced capsaicin-induced spontaneous pain

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Animal research indicates that early life stress induces a persistent pain sensitization that is unmasked by exposure to stress during adulthood, however this issue remains understudied in humans. Thus, the present study examined whether young adults reporting early adversity would show pain sensitization following a stressor, a single session of written emotional disclosure (WED) of trauma. We used a 2 (low early life adversity or ELAs [$M = 1.09$, $SEM = 0.15$], high ELAs [$M = 13.11$, $SEM = 1.0$]) X 3 (neutral or trauma topics in a neutral environment or trauma topic in a safe environment) factorial design where participants scoring in the top and bottom tertiles on the Traumatic Life Events Questionnaire comprised the high and low ELA groups. Two-way ANCOVAs controlling for experimenter showed main effects of ELA for the intensity, $F(1,34) = 5.705$, $p = .023$, and unpleasantness, $F(1,34) = 6.505$, $p = .015$, of capsaicin-induced spontaneous pain during WED with the higher ELA tertile reporting greater pain. When self-reported valence during WED was entered, Valence was the only predictor of pain intensity while a significant Valence*ELA interaction, $F(1,6) = 8.635$, $p = .026$, for pain unpleasantness indicated that valence moderated the effect of ELA on the affective component of pain. These results indicate that affect moderates the effect of adversity on stress induced pain sensitization in young adults.