

ABSTRACT

THE ROLE OF AVOIDANCE IN THE RELATIONSHIP BETWEEN THE IMPACT OF CHILDHOOD TRAUMA AND PHYSIOLOGICAL RESPONSIVITY TO FEAR AND REWARD IN ADULTHOOD

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Childhood trauma is prevalent and has been associated with deleterious physical and psychological outcomes that persist into adulthood. Extensive research on the neurobiological consequences of experiencing trauma has demonstrated an association between experiencing a traumatic event and elevated physiological arousal in response to fearful stimuli compared to healthy controls. By contrast, emerging research has found that adults who experienced a trauma during childhood demonstrate blunted physiological arousal responses. The physiological profile associated with childhood trauma may be related to coping strategies utilized; notably, children may be more likely to engage in avoidance to cope with the impact of trauma and avoidance may play an instrumental role in how the impact of trauma experienced in childhood manifests into a unique biological profile in adulthood. This study further investigated the role of avoidance in physiological responses to conditioned fear among adults who experienced childhood trauma. Adult participants were categorized into those who reported experiencing at least a moderate amount of childhood trauma (CTQ+) versus no childhood trauma (CTQ-). Using the Fear, Reward, and Neutral Discrimination-Avoidance (FRND-A) task, participants were conditioned to experience fear and reward in the lab using neutral objects (shapes) paired with threat (white noise burst) to condition fear or reward (winning money) to condition reward. Shapes that resulted in no outcome were used as a control comparison. Following learning, participants were given the opportunity to avoid the threat and stop a fear response by pressing the spacebar on these trials (avoidance phase). In a subsequent run, participants were again given the opportunity to avoid the threat but at the cost of losing money on the next reward trial (consequential avoidance phase). Avoidant response rates were calculated within runs. All participants provided self-reported ratings of coping mechanisms using the Brief-COPE, a validated measure of avoidance tendency. Analyses tested 1) if the relationship between childhood trauma group (CTQ+ vs. CTQ-) and physiological response to conditioned fear in the FRND-A learning phase was moderated by avoidance tendency (Brief-COPE), 2) if the relationship between childhood trauma group and FRND-A avoidance phase rate of avoidance was moderated by avoidance tendency, and 3) if childhood trauma groups differed in FRND-A consequential avoidance phase rate of avoidance. Results demonstrated mixed support for study aims. We found that avoidance tendency did not moderate the relationship between group status and physiological response to conditioned fear, but that it did moderate the relationship between group status and avoidance rates during the FRND-A task phase. Specifically, individuals in the CTQ+ group were less likely to avoid the conditioned fear cue if they reported greater passive avoidance tendencies. Groups did not differ in consequential avoidance phase rates of avoidance. Together, this study provides evidence that greater reliance on passive avoidance among those who have been exposed to childhood trauma is related to less active avoidance of conditioned fear. Implications and future directions are discussed.