

A RANDOMISED, DOUBLE-BLIND STUDY INVESTIGATING THE RELATIONSHIP BETWEEN EARLY CHILDHOOD TRAUMA AND THE REWARDING EFFECTS OF MORPHINE.

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Introduction and Aims: *Experiences of childhood trauma (abuse and neglect) are disproportionately higher in those with opioid use disorder (OUD). Childhood trauma may affect the reinforcing and rewarding properties of opioid drugs and responses to pain, potentially via developmental changes to the endogenous opioid system. This has been supported by pre-clinical research, yet this not been investigated in non-addicted humans.*

Design and Methods: *Physically healthy participants with either a history of severe childhood trauma or no previous history of childhood trauma attended two sessions where they received either an intramuscular active dose of morphine (0.15mg/kg) or a very low dose control (0.01mg/kg) in a randomised, double-blind design. Sessions were held one week apart. Physical pain threshold and tolerance were measured pre- and post-drug administration using the cold water pressor test, alongside acute subjective and behavioural responses over 2.5 hours.*

Results: *The trauma group reported liking the effects of morphine, feeling more euphoric and wanting more of the drug over the session, as well as feeling less nauseous, dizzy, and dislike of the effects of morphine compared to the non-trauma comparison group. Morphine increased pain threshold and tolerance, yet this did not differ between groups.*

Discussion and Conclusions: *Childhood trauma may sensitise individuals to the pleasurable effects of opioids and reduce sensitivity to the aversive effects, providing compelling evidence for individual differences in opioid reward sensitivity. This may explain the link between childhood trauma and vulnerability to OUD, with implications on interventions, the prescribing of opioids, and reducing stigmas surrounding OUD.*

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