Team publishes first evidence of impulsive behavior in nonsuicidal self-injury

Are young adults who harm themselves more at risk for suicide? New research suggests there could be a connection under specific conditions associated with negative emotions.

Kenneth J.D. Allen, Ph.D., a postdoctoral research fellow in the Psychosocial Research Program at Butler Hospital and the Department of Psychiatry and Human Behavior at The Warren Alpert Medical School of Brown University, recently published several articles related to this important topic. His research suggests that nonsuicidal injury (NSSI), when people harm themselves without wanting to die, is associated with impulsive behavior, but only under specific conditions associated with negative emotions. Importantly, this research also identifies potential areas of treatment for a select group of individuals deemed as high-risk for suicide attempts.

Dr. Allen's work was published in the peer-reviewed scientific journals Psychiatry Research (Frequency of nonsuicidal self-injury is associated with impulsive decision-making during criticism) and Behavior Therapy (Negative Emotional Action Termination (NEAT): Support for a cognitive mechanism underlying negative urgency in nonsuicidal self-injury). Dr. Allen's work was completed with the support of his Ph.D. advisor Jill M. Hooley, D.Phil., who is affiliated with the Department of Psychology at Harvard University, and Heather T. Schatten, Ph.D., his co-mentor at Brown and Butler.

"People who self-injure, both more frequently and more recently, also make more impulsive choices when experiencing distress than those who self-injure less frequently and/or less recently," said Dr. Allen. "Importantly, this suggests the response to actual, perceived, or even self-criticism may be a promising treatment target, particularly for those at highest risk of future suicide attempts."

Common examples of NSSI include cutting, burning, or hitting oneself. NSSI is common, especially among adolescents and young adults, even those without any diagnosable psychiatric conditions. While NSSI occurs without the intent of suicide, it is also one of the strongest predictors of future attempted suicide, so determining shared and distinct factors involved in nonsuicidal and suicidal forms of self-injury is critical.

Dr. Allen explained that while NSSI without suicidal intent may be a common behavior, the potential for serious consequences is significant, as research suggests these events are equivalent to prior suicide attempts in predicting future suicidal behavior.

"The clinical implications of this research could be substantial," said Dr. Allen. "When and where the NSSI occurs in conjunction with negative mood and accompanying impulse control problems might inform assessment, treatment, and prevention of both NSSI and suicide, which is really what we're here for."

The published research shows the results of new laboratory tasks created by Dr. Allen and his colleagues addressing the discrepancy between self-reported impulsivity in people who engage in NSSI and their lack of impulsive behavior on existing laboratory tasks. The impact of this indicates that NSSI is associated with impulsive behavior, but only under specific conditions associated with negative emotions.

Although previous studies did not identify impulse control deficits in NSSI, Dr. Allen's research demonstrates that people who self-injure have more difficulty controlling impulses directly motivated by negative emotions such as anxiety, anger, and sadness. Dr. Allen's studies suggest that difficulty controlling impulses motivated by distress might help explain the link between NSSI and future suicide. This impairment is specific to negative emotional action termination, or the final...
stage of response inhibition, meaning that such individuals might only act impulsively once their negative feelings reach a certain level of intensity.

"Therapeutic interventions focusing on increasing 'mindfulness' could be particularly useful in helping individuals become aware of their emotions and accompanying urges before they become overwhelming and reach this breaking point," said Dr. Allen. "Ultimately, our findings suggest that once someone gives in to an impulsive urge to self-injure, they may find it especially difficult to stop, whereas if that person can catch this urge early on, they may be able to choose a more adaptive strategy to reduce their unpleasant emotional state, such as exercising or listening to music."

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