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The emotional impact not frequency of intrusive thoughts mediates the relation between math anxiety and math performance.

Retanal, F., Trudel, G., Kamineni, D., Hunt, T. E., & Maloney, E. A.

Math anxiety (MA), feelings of tension during math, is a robust predictor of lower math performance. The Cognitive Disruption Account posits that highly math-anxious individuals underperform because intrusive thoughts consume working memory (WM) resources necessary for math. However, direct evidence linking intrusive thoughts to math anxiety and performance remains limited. Across two studies, we examined how both the frequency and emotional impact of intrusive thoughts relate to MA and math performance. In Study 1, the emotional impact – but not frequency – of intrusive thoughts mediated the relation between MA and poorer math performance. Study 2 manipulated WM demands and replicated this pattern: the emotional impact of intrusive thoughts mediated the relation between MA and performance under both low and high WM demands. These findings extend the Cognitive Disruption Account by highlighting the importance of the emotional dimension of intrusive thoughts and inform broader anxiety–performance frameworks, including Attentional Control Theory.