

Abstract

Background:

Delusions are false beliefs strenuously held despite contrary evidence, and delusion conviction was found to be least responsive to treatment compared to other dimensions of delusion, suggesting the need for investigation into the pathology behind. Although research has suggested that delusion conviction is influenced by belief flexibility, the cognitive mechanisms behind it are still elusive. Therefore, the goal of this study was to investigate the relationship between working memory updating (WM updating) and delusion conviction, and whether belief flexibility mediates this relationship.

Method: Using the N-back task, we assessed the WM updating capacity in 29 individuals with psychiatric disorders and moderate to severe delusions.

Results:

Contrary to the hypotheses, WM updating was not associated with either belief flexibility or delusion conviction. Consistent with the findings of previous studies, though, there was a significant direct effect of belief flexibility on delusion conviction.

Conclusion:

The study moves onto new ground in theoretical research regarding delusion change. Future studies should focus on probing the causal mechanism of delusion conviction with refined measures that tap into the multiple processes in WM updating.