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Title of Poster: Obsessed not to forget: lack of retrieval induced forgetting effect in obsessive compulsive disorder (OCD)

Abstract:

Study objectives: To investigate the role of executive functions in resolving memory interference in a clinical sample of patients with obsessive-compulsive disorder (OCD).

Method: Retrieval of memories has been shown to involve an executive mechanism that diminishes the accessibility of rival memory traces, leading to retrieval induced forgetting (RIF). These executive control processes might suppress unwanted thoughts and irrelevant memories during competitive retrieval. We hypothesized that OCD patients manifest reduced RIF compared to the matched healthy controls due to impaired executive functions that are supposed to resolve interference during competitive retrieval.

We assessed RIF with the retrieval practice paradigm among twenty five OCD patients and twenty five healthy controls matched for age and education. In contrast to most previous clinical studies of RIF, we used a method where the observed RIF effect can only be explained by inhibitory processes, and not for instance by interference. In addition to recall accuracies, we focused on differences in recall latencies as a measure of RIF to ensure that any effect that decreases accessibility of memories due to competitive retrieval would be detected. We controlled for working memory (n-back Task), symptom severity (Yale-Brown Obsessive Compulsive Scale, Y-BOCS) and trait and state anxiety (Spielberger State and Trait Anxiety Inventory, STAI).

Results: Retrieval of target memories led to enhancement of target memory recall in both groups, but suppression of related memories (RIF) occurred only among controls. This finding was not due to different levels of working memory, symptom severity and anxiety. Learning curves during the retrieval practice phase were similar in the two groups. Therefore the lack of RIF among OCD patients was not related to overall learning or recall performance.

Conclusions: Suppression of irrelevant, interfering memories during competitive recall is impaired in OCD.

Educational objectives: To promote cognitive experimental approaches to OCD research and therapy.

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