Obsessive-compulsive disorder (OCD) has been one of the main research areas of our unit for several years. We are interested in many different aspects of the disorder, from basic research (e.g., memory, information processing, cognitive biases), which aims at gaining a better understanding of the etiology and maintenance of OCD, to the development and evaluation of specific interventions.

The therapeutic and self-help interventions developed by our unit are based upon a multitude of findings from basic research. For the results of completed projects, please see the reference list below. Selected projects are outlined in the following sections.

Memory, Metamemory, and Responsibility

In a research project supported by the German Research Foundation (DFG) we investigated a possible link between visuospatial dysfunctions and nonverbal memory in individuals with OCD. The results did not provide evidence for the existence of specific spatial or non-verbal memory deficits in OCD (Moritz et al., 2005; see also Jelinek et al., 2006). Further studies were based on the hypothesis that patients with OCD display abnormalities in metamemory (e.g., response confidence, subjective appraisal of one's performance skills) rather than in memory accuracy. In these studies, patients with OCD and healthy controls did not differ with regard to source memory (i.e., memory of the source of information), response confidence, or subjective vividness of stored memory episodes (Moritz et al., 2006; Moritz et al., 2003; Moritz et al., 2009). A reduction in metamemory occurred only under conditions in which subjective responsibility was inflated (Moritz et al., 2007).

Information Processing

Negative priming is usually regarded as an index of cognitive inhibition. In contrast to previous reports from others, in a study by Moritz and colleagues (2010), we did not find reduced negative priming in individuals with OCD. Moreover, we found similar responses for the processing of subordinate local vs. higher-order global structures using a local-global paradigm (Moritz et al., 2008b). Further studies employed tests that are thought to be sensitive to the orbitofrontal cortex (e.g., the delayed alternation task (DAT); Moritz et al., 2009a; the object alternation task (OAT); Moritz et al., 2009b).

To further assess characteristics of information processing in patients with OCD, we used the following paradigms: inhibition of return (IOR; Moritz et al., 2009c), emotional Stroop test (EST; Moritz et al., 2008a), retrieval-induced forgetting (RIF; Jelinek et al., 2012), and directed forgetting (DF; Moritz et al., 2011).

Moreover, in an online study we were able to provide initial evidence that participants with OCD are more likely than healthy controls to process ambiguous words (i.e., homographs) in an OCD-related or negative context (Jelinek et al., 2009).

These characteristics of biased information processing in individuals with OCD are addressed in “association splitting”, a technique developed by our group designed to reduce obsessive thoughts (Moritz et al., 2007). For more information, please click on the Interventions tab above.

Thinking Styles / Cognitive Biases in OCD

Cognitive biases (e.g., inflated sense of responsibility or overestimating the probability of danger) and personality styles (e.g., perfectionism, intolerance of ambiguity) play a crucial role in the development and
maintenance of OCD. We have developed a self-help manual consisting of 14 modules addressing these cognitive biases, as well as typical OCD-related concerns. In the manual, we draw upon results of our own studies on OCD-relevant thinking styles (e.g., Moritz et al., 2011a; Moritz & Jelinek, 2009), as well as recent metacognitive approaches in the treatment of cognitive biases. The self-help manual has been positively evaluated in comparison to a waitlist control group in an online study (Moritz et al., 2011b), and the third edition is now available (Moritz & Hauschildt, 2016). A subsequent study, funded by the Federal Ministry of Education and Research (BMBF), confirmed the feasibility and effectiveness of the program (Hauschildt et al., 2016). For more information, please click on the Interventions tab above.

**Latent aggression in patients with OCD**

Various studies carried out by our research group have explored whether patients with OCD have interpersonal attitudes characterized by increased ambivalence. Specifically, we have sought to understand to what extent prosocial attitudes (e.g., having high moral standards) compete with antisocial impulses (e.g., mistrust, latent aggression; Moritz et al., 2011; Moritz et al., 2013; Moritz et al., 2009) in these patients. To test this hypothesis, we developed the Responsibility and Interpersonal Behaviors and Attitudes Questionnaire (RIBAQ; Moritz et al., 2009), which is comprised of three subscales: excessive responsibility, distrust and latent aggression. As hypothesized, participants with OCD obtained higher scores on items related to responsibility and concerns for others (mainly close relatives or friends). At the same time, latent aggression and mistrust were also more pronounced in patients with OCD compared to healthy subjects (Moritz et al., 2011; Moritz et al., 2009), as well as patients with an anxiety disorder or depression (Moritz et al., 2009). In order to address the limitations of explicit (self-report) measures in detecting latent aggression (especially restricted introspection and social desirability), in subsequent studies we investigated aggressive self-concepts in patients with OCD using implicit measures. Correlations between compulsive checking and implicitly aggressive basic concepts, as measured by the Implicit Association Test (IAT), were found, such that patients with OCD exhibited more peaceful self-concepts in comparison to a healthy control group (Cludius et al., 2017). In follow-up studies, we plan to investigate latent aggression in patients with OCD using different implicit measures. Such studies may help determine whether OCD is characterized by an overcompensation for increased latent aggression or by an exaggerated self-awareness of normal aggressive impulses.

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