

Developing ultra-brief CBT for anxiety disorders: basic and clinical effects of cognitive enhancers

DPhil project – Supervisor: Dr Andrea Reinecke

Traditional cognitive-behaviour therapy (CBT) approaches for anxiety disorders are time-consuming, expensive, and difficult to access. The aim of our research is to develop novel, ultra-brief psychological-pharmacological combination treatments, logically based on their key mechanistic effects. We have recently shown that a well-designed single session of CBT already leads to drastic improvements in anxiety, with one third of patients being symptom free. This suggests that optimal treatment doses might be much lower than previously thought. Most importantly, this work has also identified a neuropsychological mechanism that determines how well patients recover after CBT, with those patients improving particularly well who show a stronger change in the fear circuit of the brain immediately after CBT. Such findings imply that add-on treatments that boost this early change in the brain might have the potential to improve CBT effects.

There are a range of potential DPhil studies that could fit into this program of research:

1. Exploring the basic effects of different cognitive enhancers on emotional processing in healthy volunteers, to find out how they might potentially improve CBT
2. Investigating how different drugs affect fear acquisition and extinction in healthy samples
3. Combining clinical work and neuroscience, by investigating the effects of cognitive enhancers in combination with a single session of CBT for anxiety disorders on the fear circuit of the brain

These projects would involve a range of techniques, including neuroimaging (EEG, fMRI) in healthy volunteer and patient samples.

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