

INPLASY PROTOCOL

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None declared.

INTRODUCTION

Review question / Objective: Exposure and response prevention (ERP) is a form of cognitive behavioral therapy (CBT) that can effectively relieve obsessive-compulsive

The efficacy and neural correlates of ERP-based therapy for OCD & TS: A systematic review and meta-analysis

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Review question / Objective: Exposure and response prevention (ERP) is a form of cognitive behavioral therapy (CBT) that can effectively relieve obsessive-compulsive symptoms and tic symptoms in patients with obsessive-compulsive disorder (OCD) and Tourette syndrome (TS). However, the effect size of ERP based therapy is still unclear. Therefore, we will perform a meta-analysis to identify the efficacy of ERP based therapy between OCD patients and control group, TS patients and control group.

Information sources: We will search, with no time restrictions, the following databases for relevant English language literature: PubMed (MEDLINE) and Web of Science. The search terms are as follows: "obsessive-compulsive disorder" or "OCD" or obsessive/compulsive" or "Tourette's syndrome or tics or tic disorders" and "cognitive behavior therapy" or "exposure and response" or "exposure and ritual prevention," or "ERP" or "EX/RP" or "psychotherapy" .

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symptoms and tic symptoms in patients with obsessive-compulsive disorder (OCD) and Tourette syndrome (TS). However, the effect size of ERP based therapy is still unclear. Therefore, we will perform a meta-analysis to identify the efficacy of ERP

based therapy between OCD patients and control group, TS patients and control group.

Condition being studied: Obsessive-compulsive disorder (OCD) is a chronic psychiatric disorder characterized by distressing and time-consuming obsessions and compulsions. Obsessions are defined as intrusive and unwanted thoughts, urges, or images, and they are followed by compulsions, which aim to relieve these “uncomfortable feelings”. It is reported that the lifetime prevalence of OCD is about 1%–3%. Patients are often affected by obsessions and compulsions that interfere in social, at home, educational attainment, and occupational aspects. Exposure and response prevention (ERP) is based on cognitive behavioral therapy (CBT) and is the primary psychological treatment for OCD in children, adolescents, and adults. ERP involves exposure to feared obsessional stimuli while refraining from engaging in compulsive behaviors. Research indicates that about 60%–85% of patients who complete ERP treatment see significant success in alleviating obsessive-compulsive symptoms. Moreover, CBT (including ERP) is recommended as the first-line treatment for mild-to-moderate OCD in youth. Furthermore, ERP is applied not only in patients with OCD but also in patients with Tourette syndrome (TS). TS is characterized by sudden motor movements and/or vocalizations (referred to as tics) for at least 12 months. It has been reported that the worldwide prevalence of TS is nearly 1%. ERP has also been recommended as first-line behavioral therapy in American, Canadian and European guidelines for tic disorders. However, the efficacy of ERP for TS is needed to be clarified, as well as the effect size of ERP based therapy is still unclear.

METHODS

Participant or population: Patients with OCD or TS/chronic tic disorder will be included.

Intervention: Exposure and response prevention (ERP) is based on cognitive behavioral therapy (CBT) and is the primary psychological treatment for OCD and TS in children, adolescents, and adults.

Comparator: Using other therapies for OCD or TS patients.

Study designs to be included: Randomized clinical trials will be included irrespective of blinding, publication status or language.

Eligibility criteria: Not randomized clinical trials.

Information sources: We will search, with no time restrictions, the following databases for relevant English language literature: PubMed (MEDLINE) and Web of Science. The search terms are as follows: “obsessive-compulsive disorder” or “OCD” or obsessive/compulsive” or “Tourette's syndrome or tics or tic disorders” and “cognitive behavior therapy” or “exposure and response” or “exposure and ritual prevention,” or “ERP” or “EX/RP” or “psychotherapy”.

Main outcome(s): Yale-Brown Obsessive-Compulsive Symptom Scale (Y-BOCS); Children's Yale-Brown Obsessive-Compulsive Scale (CY-BOCS).

Quality assessment / Risk of bias analysis: we will use Egger's funnel plot to deal with publication bias.

Strategy of data synthesis: We will use randomized effects model to examine the standard mean difference (SMD) of ERP based therapy. If the SMD will between 0.2 and 0.5, it means the efficacy of ERP based therapy is mild-to-moderate, whereas SMD values between 0.5 and 0.8 indicates that the efficacy of ERP based therapy is moderate-to-large. The I² and forest plots will be used to identify the heterogeneity of ERP. If I² is greater than 50%, we will use a random-effects model. We then will use subgroup and meta-regression analyses to explore heterogeneities in the effect size for ERP based therapy. We will consider a p-value < 0.05 to be statistically significant.

Subgroup analysis: A subgroup analysis of the pooled SMD of ERP-based therapy for OCD will be conducted to identify the potential source of heterogeneity by different comparisons of ERP based therapy and different age groups.

Sensitivity analysis: We will use sensitivity analysis to explore the heterogeneity of the pooled SMD of ERP based therapy for OCD. This method omits one study at a time and tracks the change in I² to identify the contribution of each study to the heterogeneity.

Country(ies) involved: China.

Keywords: Exposure and response prevention, Cognitive behavioral therapy, Obsessive-compulsive disorder, Tourette syndrome, tic disorders, meta-analysis.

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