# INPLASY PROTOCOL

To cite: Concerto et al. Transcranial Magnetic Stimulation for the treatment of Gambling Disorder: a systematic review. Inplasy protocol 202310054. doi: 10.37766/inplasy2023.1.0054

### Received: 17 January 2023

Published: 17 January 2023

### Corresponding author: Carmen Concerto

c.concerto@policlinico.unict.it

Author Affiliation: University of Catania.

Support: No funding sources or sponsors.

**Review Stage at time of this submission: Preliminary searches.** 

Conflicts of interest: None declared.

## Transcranial Magnetic Stimulation for the treatment of Gambling Disorder: a systematic review

Concerto, C<sup>1</sup>; Signorelli, MS<sup>2</sup>; Natale, A<sup>3</sup>; Di Francesco, A<sup>4</sup>; Chiarenza, C<sup>5</sup>; Torrisi, G<sup>6</sup>; Ciancio, C<sup>7</sup>; Mineo, L<sup>8</sup>; Aguglia, A<sup>9</sup>; Rodolico, A<sup>10</sup>; Lanza, G<sup>11</sup>; Battaglia, F<sup>12</sup>.

**Review question / Objective: What is the effect of Transcranial Magnetic Stimulation on Gambling Disorder? Condition being studied: Gambling Disorder.** 

**Eligibility criteria:** Inclusion criteria: studies evaluating the use of Transcranial Magnetic Stimulation for the treatment of Gambling Disorder including randomized and non-randomized studies; studies written in English; studies exploring an adult population, over the age of 18. Esclusion criteria: patients with other psychiatric disoders.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 17 January 2023 and was last updated on 17 January 2023 (registration number INPLASY202310054).

### INTRODUCTION

**Review question / Objective: What is the effect of Transcranial Magnetic Stimulation on Gambling Disorder?** 

Condition being studied: Gambling Disorder.

### **METHODS**

**Search strategy:** We will search the following electronic databases: MEDLINE (through PubMed), EMBASE, PsycINFO and Web of Science.

Participant or population: Adults with Gambling Disorder.

**Intervention:** Repetitive and Theta Burst Transcranial Magnetic Stimulation.

Comparator: Sham stimulation.

Study designs to be included: Randomized and non randomized studies (single and double-blind).

Eligibility criteria: Inclusion criteria: studies evaluating the use of Transcranial Magnetic Stimulation for the treatment of Gambling Disorder including randomized and nonrandomized studies; studies written in English; studies exploring an adult population, over the age of 18. Esclusion criteria: patients with other psychiatric disoders.

Information sources: We will search the following electronic databases: MEDLINE (through PubMed), EMBASE, PsycINFO and Web of Science.

Main outcome(s): Changes in clinical outcomes.

Quality assessment / Risk of bias analysis: CC and a second reviewer will independently assess risk of bias using the Cochrane Risk of Bias tool, considering how the sequence was generated, how allocation was concealed, integrity of blinding at outcome, completeness of outcome data, selective reporting, and other biases.

Strategy of data synthesis: We will provide a narrative synthesis of the findings from the included studies.

Subgroup analysis: We will provide a narrative synthesis of findings according to the types of stimulation parameters and the outcome measures.

Sensitivity analysis: No sensitivity analysis are planned.

Language restriction: English.

Country(ies) involved: Italy.

**Keywords:** Transcranial Magnetic Stimulation; Gambling Disorder; Systematic review; Narrative synthesis.

#### **Contributions of each author:**

Author 1 - Carmen Concerto. Email: c.concerto@policlinico.unict.it Author 2 - Maria Salvina Signorelli. Email: maria.signorelli@unict.it Author 3 - Antimo Natale. Email: antimo.natale@vahoo.it Author 4 - Antonio Di Francesco. Email: antonio.di.francesco96@gmail.com Author 5 - Cecilia Chiarenza. Email: cecilia.chiarenza11@gmail.com Author 6 - Giulia Torrisi. Email: giuliatorrisi2305@gmail.com Author 7 - Alessia Ciancio. Email: alessia.ciancio@gmail.com Author 8 - Ludovico Mineo. Email: ludwig.mineo@gmail.com Author 9 - Andrea Aguglia. Email: andrea.aguglia@unige.it Author 10 - Alessandro Rodolico. Email: alessandro.rodolico@me.com Author 11 - Giuseppe Lanza. Email: glanza@oasi.en.it Author 12 - Fortunato Battaglia Email: fortunato.battaglia@hmhn.org