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Transdiagnostic Exploration of the Association of *Toxoplasma Gondii* with Psychiatric Disorders. a Systematic Review and Meta Analysis

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Introduction: An association between *Toxoplasma gondii* (*T. gondii*) and schizophrenia has been shown by a meta-analysis showing a significant Odds Ratio (OR) of 2.7. Currently, several studies have looked at the association between *T. gondii* and other psychiatric disorders as well, rendering exploration of diagnostic specificity possible. Furthermore, questions remain on the timing and nature of the infection.

Methods: A systematic search was performed to identify relevant studies of all major psychiatric disorders versus healthy controls in relation to *T. gondii* infection. Methodological quality, heterogeneity and risk of bias were assessed.

Results: A total of 2866 studies were found, from which 51 studies were finally included. Significant ORs were found for Schizophrenia, Bipolar Disorder, OCD and Addiction, but not for Major Depression. Further exploration of the association between *T. gondii* and schizophrenia, yielded a significant association of seropositivity before onset of psychosis and with high antibody titers. A decline of the association was found when baseline exposure in the healthy control population increased.

Discussion: These findings suggest that *T. gondii* infection is not merely associated with psychosis and that in schizophrenia a reactivation of a latent *T. gondii* infection occurs. Several hypotheses remain open about the nature of this association.