**Introduction:** Depression is a severe mental disorder with an estimated 3.8% of the population affected, representing a leading cause of disability worldwide. Being linked to reduced quality of life and individual functioning, medical morbidity and mortality, depression has a huge social and economic impact. A wide range of potentially modifiable factors for depression has been identified. Among these, social factors (e.g. support/engagement) appear to play a major role in the emergence and severity of depression.

**Objectives:** We aimed at providing a quantitative synthesis of the consistency and magnitude of the association between measures of social connection and depression. Social connection included both quantitative (i.e. existence/absence of social relationships) and functional (i.e. support provided) measures of social relationships, as well as measures focusing on social inequalities related to participation in community spaces/activities (i.e. social discrimination).

**Methods:** We searched PubMed, PsycINFO, Cochrane Library and EMBASE. The strength of the association between exposure factors (social measures) and depression was extracted and equivalent odds ratios were computed to compare the strength of the effect sizes among meta-analyses. The quality of each review was assessed using AMSTAR-2.

**Results:** As a result of the selection process 47 studies were included in the umbrella review. Social support was found to have a protective role on depression, with an observed moderate/strong effect in peripartum population and a weaker effect in clinical populations (e.g. AIDS/HIV patients). A moderate association between stigma/ discrimination and depression emerged in clinical populations (e.g. epilepsy, mental illness, post-stroke), while a weaker effect was found in (ethnic) minorities. There are still few studies quantitatively investigating the link between depression and other social measures (e.g. community connectedness).

**Conclusions:** Our findings align with the literature on social connection and mental health, confirming the role of social determinants in the emergence and severity of depression, particularly in the case of vulnerable populations. Social factors emerge as important modifiable targets in the context of depression prevention. Efforts to counteract disconnection at the societal and individual levels and to reduce stigma should be central to an effective depression prevention agenda.

Disclosure of Interest: None Declared

## EPP0598

## Repetitive Transcranial Magnetic Stimulation with and without Internet-Delivered Cognitive Behavior Therapy for the Treatment of Resistant Depression: Patient-centered Randomized Controlled Pilot Trial

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**Introduction: Background:** Treatment-resistant depression (TRD) is considered one of the major clinical challenges in the field of psychiatry. At least 15% of all patients with MDD remain

refractory to any treatment intervention. Repetitive transcranial magnetic stimulation (rTMS) is considered a treatment option for patients with TRD. Additionally, iCBT is an evidence-based psychotherapy for the management of TRD.

**Objectives:** This study aims to evaluate the clinical effectiveness of adding iCBT to rTMS treatment as an innovative combined intervention, exploring the short and long-term outcomes on patients with TRD

**Methods:** This study is a randomized controlled trial. Participants diagnosed with TRD were randomized to one of two interventions: rTMS alone and rTMS+iCBT. Each group completed evaluation measures at baseline, discharge (6 weeks), and one & three months after discharge. The primary outcome measure was the mean change in the Hamilton depression rating scale (HAMD-17) from baseline to three months.

**Results:** Preliminary results for the early outcome of the study showed that after adjusting for the baseline scores, there was no significant difference in the mean score of HAMD-17 from baseline to six weeks between the participants of the two groups, (F (1, 53) = 0.15, p = 0.70, partial eta square = 0.003). The result of the long-term effectiveness is underway, forecasting the potential synergism of the two interventions.

**Conclusions:** This study found the combined treatment of rTMS + iCBT not to be superior to treatment with rTMS alone, in the short term. We hope the long-term results would thoroughly address the effectiveness of the combined therapy in this randomized controlled trial.

Disclosure of Interest: None Declared

## EPP0599

## Systematic Review on the Mechanisms of Action of Psilocybin in the Treatment of Depression

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**Introduction:** Despite emerging evidence suggesting the efficacy of psilocybin in the treatment of mood disorders such as depression, the exact mechanisms by which psilocybin is able to elicit these antidepressant effects remains unknown.

**Objectives:** As the use of psilocybin as a treatment modality for depression has garnered increasing interest, this study aims to summarize the existing evidence of the mechanism of action with which psilocybin alleviates depressive symptoms, focusing specifically on the neurobiological effects of psilocybin in human subjects.

**Methods:** Four databases (Ovid MEDLINE, EMBASE, psychINFO, and Web of Science) were searched using a combination of MeSH terms and free text keywords in September 2021. The original search included both human and animal studies and must have included testing of the mechanism of action of psilocybin. Only antidepressant effects were considered, with no other mood disorders or psychiatric diagnoses included. Two independent