

**Objectives:** The trial had three key objectives: (1) assess the feasibility and acceptability of a randomized pilot trial comparing HAP and fluoxetine; (2) collect outcome data to refine study instruments and the baseline assessment; and (3) evaluate the preliminary comparative effectiveness of psychotherapy versus medication.

**Methods:** The pilot trial was conducted at eight primary health care centres in Madhya Pradesh (India) from August 2023 to February 2024. Eligible participants (aged 18+, PHQ-9 score  $\geq 10$ ) with moderate to severe depression were randomized to receive either HAP or fluoxetine. Feasibility was assessed by recruitment, retention, and adherence to study procedures. Acceptability was measured by adherence to interventions. Preliminary efficacy, as a secondary outcome, was assessed through changes in depressive symptoms (PHQ-9) from baseline to the 3-month follow-up.

**Results:** 76 participants were randomized, with primary endpoint data available for 63 (83%). Retention rates and study assessment completion were acceptable across both arms. Intervention adherence was high, with 79% (30/38 in HAP and ADM groups) completing the treatment per protocol ( $\geq 6$  HAP sessions or 70% medication adherence). PHQ-9 scores improved significantly, with an average reduction from 15.02 at baseline to 6.73 at the 3-month follow-up, with no statistically significant differences between treatments. Full remission (PHQ-9  $< 5$ ) was achieved by 45.16% (28/62) of participants. Additionally, the pilot study identified logistical challenges and facilitators that will help refine the protocol for the larger trial.

**Conclusions:** This pilot trial successfully demonstrated the feasibility and acceptability of the study design, procedures, and interventions. The preliminary data suggest that both HAP and Fluoxetine are viable treatments for moderate to severe depression in primary care settings in India. The findings will be instrumental in informing the design and implementation of a larger precision trial.

**Disclosure of Interest:** None Declared

## EPP560

### Effect of antidepressants on neurodegeneration and neuroplasticity in patients with depression: A comparison between SSRI and SNRI

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**Introduction:** Depression affects 57 million people in India and is often linked to neurodegeneration (10-90% of cases). However, there's insufficient evidence comparing the effectiveness of SSRIs and SNRIs in managing neurodegeneration symptoms.

**Objectives:** This prospective observational study aims to compare the effects of SSRI and SNRI monotherapy on neurodegeneration, neuroplasticity, and social cognition.

**Methods:** This prospective observational study aims to compare the effects of SSRI and SNRI monotherapy on neurodegeneration, neuroplasticity, and social cognition.

Treatment-naïve patients with unipolar depression were evaluated for treatment response using the Hamilton Depression Rating Scale (HDRS) and neurodegeneration parameters at enrollment and after six weeks of antidepressant treatment. Neurodegenerative serum biomarkers [indoleamine-2,3-dioxygenase (IDO), neurofilament light chain protein (NLCP), brain derived neurotrophic factor (BDNF)] were assessed using ELISA. Social cognition was assessed using Social Cognition Rating tools in Indian setting (SOCRATIS). Neuroplasticity was assessed by resting state MRI.

**Results:** A total of 150 patients of unipolar depression were enrolled, out of these n=126 patients were prescribed SSRI and 24 patients were prescribed SNRI. Both SSRI and SNRI group have significant reduction in HDRS score at 6-week compared to baseline (both  $p < 0.001$ ), but no intergroup difference. Overall treatment responder rate (HDRS score reduction  $> 50\%$ ) was 11.33%, but SSRI group has more responder (12.69%) compared to SNRI (4.16%). After 6 weeks of follow-up, serum IDO in SSRI group and NLCP levels in both groups were significantly decreased when compared to baseline ( $p < 0.001$ ) and BDNF levels were significantly increased in SSRI group when compared to baseline ( $p < 0.01$ ). As per SOCRATIS, after 6 weeks treatment, SSRI and SNRI didn't show any significant difference. fMRI assessment of depression patients showed significant decrease in cortical thickness of inferior temporal, pars opercularis and pre-cuneus regions of brain ( $p < 0.05$ ) in comparison with healthy controls. But there was no significant difference/increase in cortical thickness after 6 weeks of follow-up when compared to baseline.

**Conclusions:** After six weeks of antidepressant treatment, the treatment responder rate among all depression patients was 11.33%, with better outcomes observed in the SSRI group compared to the SNRI group. Likewise, in the assessment of social cognition and neurodegeneration-related biomarkers, the SSRI group showed superior performance over the SNRI group.

**Disclosure of Interest:** None Declared

## E-mental Health

### EPP561

#### From Instagram to TikTok: How Social Media Fuels Eating Disorders, Anxiety, Depression, and Insomnia in Gen Z

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