

## **P-506 - 12 WEEKS OF MODERATE INTENSITY EXERCISE IMPROVES TREATMENT-RESISTANT MAJOR DEPRESSIVE DISORDER (MDD). DAILY USE OF ACCELEROMETERS CONTRIBUTES TO 97% ADHERENCE**

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**Introduction:** Physical exercise has shown promising results as an adjuvant therapy for depression. However, most studies rely on self-reported measures, which are subject to bias.

**Aims:** To assess, using accelerometer data, compliance to a moderate intensity 12 week exercise program, exercise patterns and relationship between exercise dose and response to treatment, in a population sample of patients with treatment-resistant MDD.

**Methods:** Study design Prospective, randomized, two-arm, parallel assignment. Population 150 individuals diagnosed with treatment-resistant MDD were initially screened. Those meeting study criteria were randomized to one of two groups: control (N=11) and aerobic exercise (N=22). All participants maintained their usual pharmacotherapy. Study protocol Exercise group: moderate intensity exercise program for 12 weeks. Control group: regular daily activities. All participants wore an ActiGraph® GT1M LLC accelerometer during the 12 weeks. Assessed parameters Moderate plus vigorous physical activity (MVPA), HAMD17, BDI, GAF, CGI-S.

**Results:** The exercise group showed better depression and functional parameters at the end of the study compared to the control group (lower HAMD17, BDI, CGI-S; higher GAF,  $p < 0.05$ ). Compliance was 97% based on accelerometer data and 91% based on self-reports. Participants showed preference for exercising on weekdays and on specific periods of the day. Although not statistically significant, there was a trend for increasing MVPA from no response to response and remission. MVPA showed significant favourable correlations with all depression and functioning parameters.

**Conclusions:** Future implementation of effective exercise augmentation therapy programs should consider exercise dose and objective measures that will allow the quantification of that dose.