Evidences suggest that high BDNF serum levels are related to good cognitive functioning(Mora et al., 2019). Results require further explorations. The present pilot study targets to identify the neurobiological correlates of response, investigating the potential neuroprotective role of the FR.
Objectives: Assess the effectiveness of FR in ameliorate cognitive deficits measured with BAC-A and psychosocial functioning with FAST, in modifying BDNF levels in a sample of euthymic patients with BD, compared to standard treatment.
Methods: Two arms(1:1)randomized, rater-blinded, controlled study of 30out-patients with BD-I and BD-II, according to DSM-5 criteria. Patients between 18 and 55 years in euthymic phase. Neurocognitive and clinical assessments, at the same times, serum assessment of BDNF levels will be performed.
All patients will be assessed at baseline(T0), at the end of treatment(T1) and at the 3-month follow-up(T2).
Results: After treatment, patients receiving FR show better cognitive and psychosocial performance than those receiving TAU.
Conclusions: Given the important role of neutrophins in the pathogenesis of BD, identifying BD-specific biomarkers would contribute to understand the underlying neuro-pathophysiological processes and to personalize treatments.

Disclosure: No significant relationships.
Keywords: Functional Remediation; bipolar disorder; NEUROTROPHICS CORRELATES; bdnf

EPP0286

The TIMEBASE Study: IdenTifying dIgital bioMarkers of illnEss activity in BipolAr diSordEr. Preliminary results.

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Introduction: Mood episodes in bipolar disorder (BD) are still identified with subjective retrospective reports and scales. Digital biomarkers, such as actigraphy, heart rate variability, or Electro-Dermal activity (EDA) have demonstrated their potential to objectively capture illness activity.
Objectives: To identify physiological digital signatures of illness activity during acute episodes of BD compared to euthymia and healthy controls (HC) using a novel wearable device (Empatica´s E4).
Methods: A pragmatic exploratory study. The sample will include 3 independent groups totalizing 60 individuals: 36 BD inpatients admitted due to severe acute episodes of mania (N=12), depression (N=12), and mixed features (N=12), will wear the E4-device at four timepoints: the acute phase (T0), treatment response (T1), symptoms remission (T2) and during euthymia (T3; outpatient follow-up). 12 BD euthymic outpatients and 12 HC will be asked to wear the E4-device once. Data pre-processing included average down-sampling, channel time-alignment in 2D segments, 3D-array stacking of segments, and random shuffling for training/validation sets. Finally, machine learning algorithms will be applied.
Results: A total of 10 patients and 5 HC have been recruited so far. The preliminary results follow the first differences between the physiological digital biomarkers between manic and depressive episodes. 3 fully connected layers with 32 hidden units, ectified linear activation function (ReLU) activation, 25% dropout rate, significantly differentiated a manic from a depressive episode at different timepoints (T0, T1, T2).
Conclusions: New wearables technologies might provide objective decision-support parameters based on digital signatures of symptoms that would allow tailored treatments and early identification of symptoms.

Disclosure: No significant relationships.
Keywords: bipolar disorder; wearable; digital biomarker

EPP0287

Biological determinants of functioning in euthymic patients with Bipolar Disorder: A multicentric 3-year cohort study

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Introduction: Bipolar disorder is related with functional impairment in euthymia. The contribution of biological functions such as sleep, sexual functioning; or the presence of obesity on this loss remain understudied.
Objectives: The aim of this work was to study the influence of biological determinants in context with clinical and demographical determinants of functioning in a 3-year cohort of euthymic BD patients.
Methods: In this multicentric study 67 euthymic adult bipolar outpatients were followed during three years. Functioning was assessed with FAST, insomnia severity with Oviedo Sleep