Abstract

Background: It has been suggested that adults with Major Depressive Disorder (MDD) demonstrated distinct affective responding patterns when compared to healthy individuals. However, less is known whether the same patterns apply to youngsters with MDD and Subthreshold Depression (sD). Adopting a smartphone-based experience sampling method (ESM), the present study aimed to explore the emotional dynamic profiles in domains of variability, instability, and inertia in three youth groups along the depression spectrum (MDD, sD and Healthy).

Method: Teenagers (aged 12-17) with MDD ($n = 7$), sD ($n = 9$) and healthy controls ($n = 21$) completed the ESM ratings of real-time positive and negative emotions 5-10 times a day for 14 consecutive days, following a baseline interview measuring depressive symptoms. One-way analysis of variance (ANOVA) and the least significant difference (LSD) post-hoc tests were conducted to examine between-group differences in various affective dynamic indices.

Results: The final sample consisted of 37 participants, with a total of 2165 ESM observations. As predicted, adolescents with MDD reported the lowest PA mean and the highest NA mean, variability and instability levels than the sD and healthy groups, with more predominantly disrupted negative emotionality. Particularly, youths with depression exhibited greater NA mean and variability than their sD peers. However, no graded patterns and between-group differences in the inertia and PA variability indices were identified.

Conclusions: Notwithstanding the preliminary results, this study lent support to the negative potentiation model of depression and carried implications for targeting NA reduction in MDD interventions for youths.