

Daily Affective Dynamics in Major Depressive Disorder

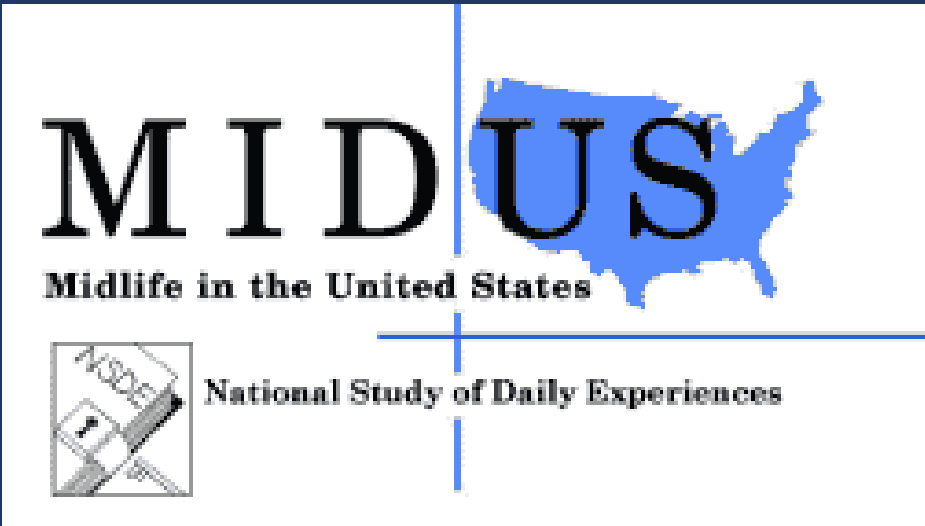


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RESEARCH OBJECTIVE

- To examine differences in daily affective variability and the magnitude of affective changes in response to daily stressors and positive events between individuals with major depressive disorder (MDD) and non-MDD individuals

METHOD

Data

- National Study of Daily Experiences (NSDE) II
 - A sub-project in the Midlife in the United States (MIDUS) study
 - Daily diary design across 8 days

Sample

- $N = 1,970$; $N_{obs} = 12,225$ days
 - MDD: $n = 202$ (10.3%)
 - Mean age = 57 years (33-84)
 - Female = 57%; White = 85%

Measures

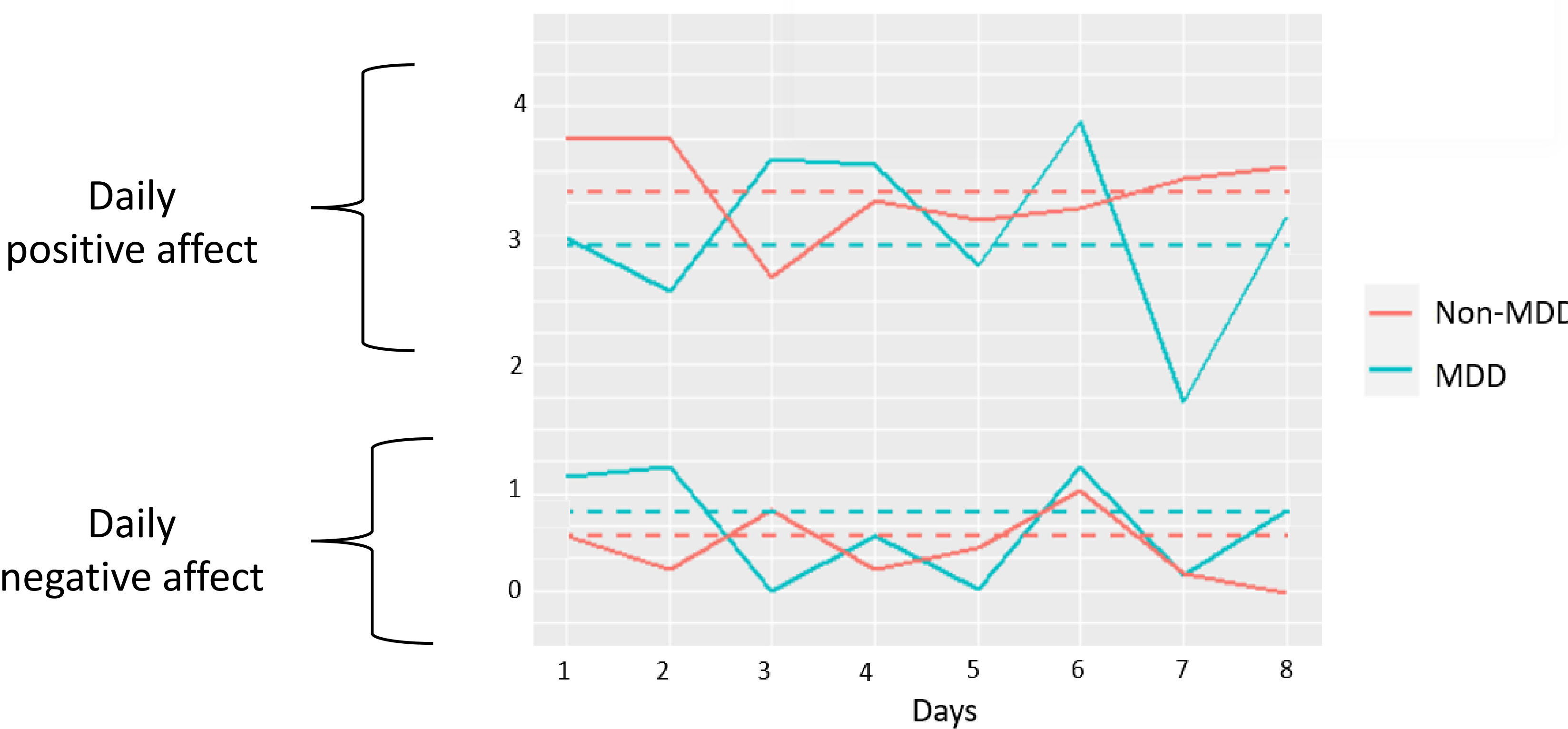
- Major Depressive Disorder (MDD)
 - Comprehensive International Diagnostic Interview-Short Form (CIDI-SF)
 - Assessed whether, in the past 12 months, participants met criteria for MDD as defined in the *Diagnostic and Statistical Manual of Mental Disorders Third Edition (DSM-III)*
- Daily positive and negative affect
 - Items assessing 13 positive mood states and 14 negative mood states, rated on 5-point scale.
 - Average score of items is used in the analyses
- Daily events (daily stressors and positive events)
 - Daily stressor: Daily Inventory of Stressful Events (DISE), assessing the occurrence of 7 stressful events in the past 24 hours
 - Daily positive events: Assessed the occurrence of 5 positive events in the past 24 hours
 - Stressor-day / Positive-event-day* represent a day when participants experienced any of daily stressors or positive events (1 = yes, 0 = no)

Analysis

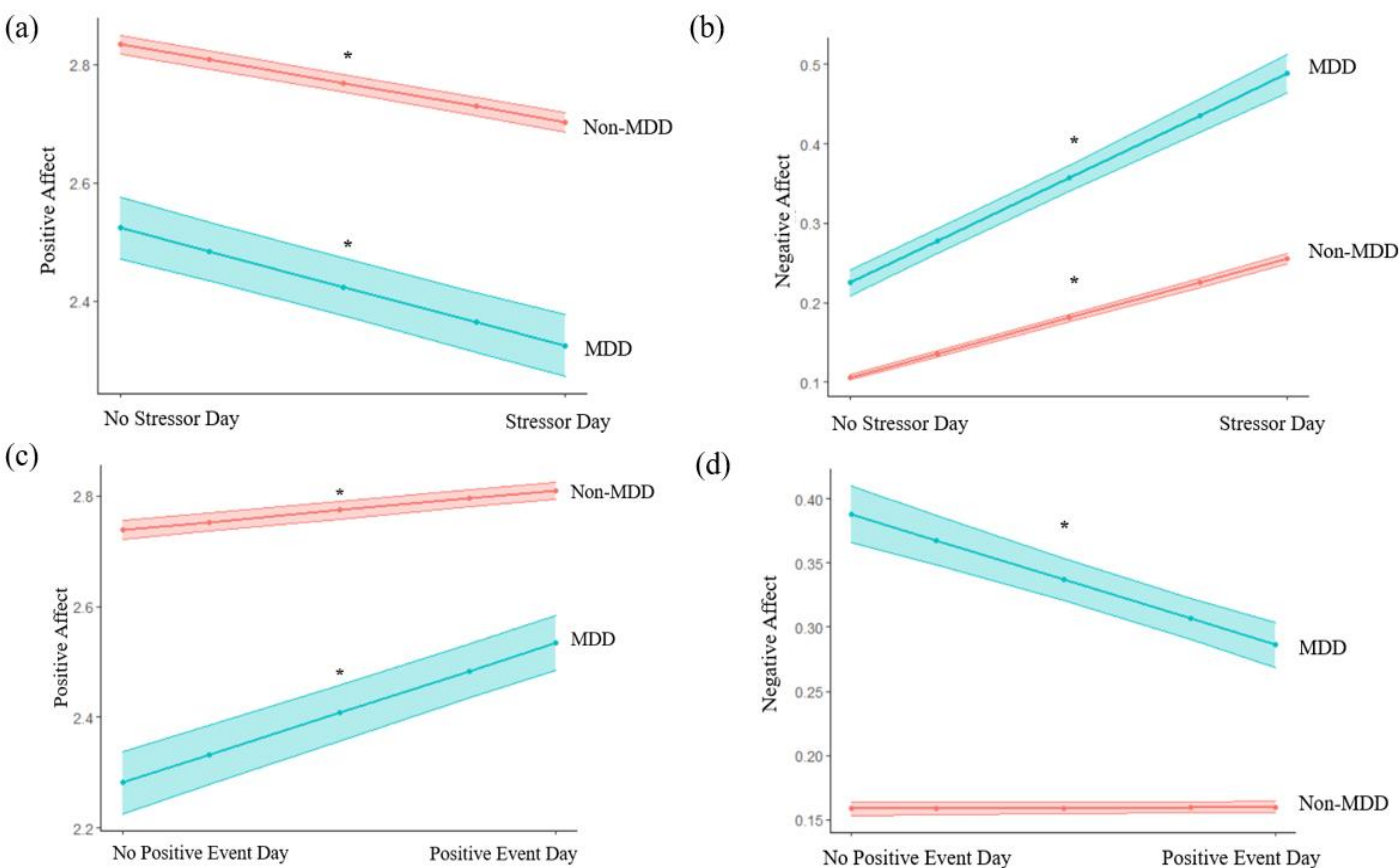
Multilevel models with heterogeneous variance

MAIN FINDING

- Compared to non-MDD, individuals with MDD tended to experience significantly lower positive affect and higher negative affect and greater fluctuations in daily positive and negative affect.



- Compared to non-MDD, MDD individuals experienced (a) a greater decrease in daily positive affect and (b) a greater increase in negative affect on stressor-days than non-stressor days.
- Compared to non-MDD, MDD individuals experienced (c) a greater increase in daily positive affect and (d) a greater decrease in daily negative affect on positive-event-day than non-positive-event-days.



DESCRIPTIVE STATISTICS

Variable	MDD ($n = 202$; $n_{obs} = 1,186$)	Non-MDD ($n = 1,768$; $n_{obs} = 11,039$)
	Mean (SD) or n (%)	Mean (SD) or n (%)
Demographic		
Age, years	52.21 (10.93)	57.22 (12.23)
Sex, Male	56 (27.7%)	786 (44.5%)
Race, White	172 (85.2%)	1,502 (85.0%)
Education, Less than high school graduate	70 (34.7%)	538 (30.4%)
Marital status, Married	114 (56.4%)	1,246 (70.5%)
Anxiety disorder, diagnosed	70 (34.7%)	90 (5.1%)
Daily diary variables		
Positive affect	2.26 (0.88)	2.81 (0.67)
Negative affect	0.39 (0.45)	0.15 (0.21)
Stressors (% of days)	44.4%	34.7%
Positive events (% of days)	62.7%	68.5%
Weekday (vs. weekend)	72.1%	72.4%

CONCLUSION

- We found that depressed individuals experienced higher levels of both positive and negative variability and a greater magnitude of daily affective responses to daily stressors and daily positive events.
- Affective variability and affective reactivity to daily events, both stressors and positive events, may be indicators of depressive symptomatology and potential targets for intervention.
- Targeting these areas for improvement and observing clinically significant changes in these variables may lead to more sustained improvement and remission rates.

FINANCIAL DISCLOSURE

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