We will not exclude outliers and include all participants who completed our study in the hypothesis tests.

6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.

(additional analyses will be performed (e.g., examining potential influences of medication status, etc.). Fourth, we will investigate differences between diagnostic groups. Afterwards, sensitivity and analyze differences between patients by including baseline scores (e.g., difficulties in emotion regulation) as between-level predictors or context variables other potentially influencing variables. Second, we will include two or more predictor variables (e.g., arousal and valence) in the same model. Third, we will physiological variables (e.g., heart rate). When analyzing salivary cortisol, we will control for the phase of menstrual cycle in female participants, age, and physiological parameters. Physical activity metrics based on accelerometer and rotation data will be included as controls in models including ambulatory performed in several steps for both data sets. First, we will run separate models relating dissociative states with (a) arousal, (b) valence, and (c) physiological parameters. Physical activity metrics based on accelerometer and rotation data will be included as controls in models including ambulatory physiological variables (e.g., heart rate). When analyzing salivary cortisol, we will control for the phase of menstrual cycle in female participants, age, and other potentially influencing variables. Second, we will include two or more predictor variables (e.g., arousal and valence) in the same model. Third, we will analyze differences between patients by including baseline scores (e.g., difficulties in emotion regulation) as between-level predictors or context variables (e.g., current stressful event) as within-level predictors. Fourth, we will investigate differences between diagnostic groups. Afterwards, sensitivity and additional analyses will be performed (e.g., examining potential influences of medication status, etc.).

6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.

We will not exclude outliers and include all participants who completed our study in the hypothesis tests.
7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.

Sample size was determined using Monte Carlo simulations (Mplus version 8.8). The models in the simulations match the models we intend to use for our hypothesis tests. As in traditional power analysis, the simulations assume the size of the expected effects and effect variances. Our primary interest is in cross-lagged effects linking affect and dissociation (hypothesis 1). Power was set to at least 0.80 for these effects and the alpha level was set to 0.05. Other than traditional power analysis, Monte Carlos simulations also make assumptions about effects and variances that are only indirectly related to our hypothesis tests. These effects and variances include fixed effects, random effects variances, and innovations in the RI-CLPMs and dynamic SEMs we will use to test our hypotheses. Code and full results are available at https://osf.io/qwz27/.

Experience Sampling Study: Effect estimates for the experience sampling study simulation dynamic SEMs are based on pilot data from our working group that used dynamic SEM in patients with BPD (Heekerens et al., 2023; see Schultzberg & Muthén, 2018 for details). The experience sampling of the current study comprises 84 assessments (12 assessments per day over one week). With \( N = 85 \), this will result in 7,140 data points. We expect an average of 16 missing responses (approx. 80% compliance). For hypothesis 1, we assume that the fixed effect of the temporal relation between arousal (t-1) and subsequent dissociative states (t) is 0.15 in our dynamic SEM, which is a conservative estimate based on earlier results (effect in pilot study: 0.25; Heekerens et al., 2023). We estimate that our model will have a power of 0.98 to detect an effect of 0.15.

Laboratory Study: Effect estimates for the laboratory study simulation RI-CLPMs are based on pilot data from our working group that investigated the effects of the TSST on dissociative states in patients with BPD and/or PTSD (Graumann et al., 2023). For hypothesis 1, we assume that the fixed effect between arousal after the first part of the TSST (preparing the speech, t-1) and dissociative states after the second part of the TSST (delivering the speech, t) will be 0.30. The estimate is based on an earlier study that reports an effect of 0.25 across everyday life situations (Heekerens et al., 2023), and can be considered conservative as the association between arousal and dissociative states is expected to be higher under stress (Graumann et al., 2023). In a sample of \( N = 85 \), we estimate the power of our model to detect the effect of 0.30 to be 0.88.

8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)

References