

Distinct Patterns of Resilience Identified Using Smartphone Mobile Experience Sampling Method (M-ESM) and a Dual Model of Mental Health

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Abstract : The response to stress can be highly heterogenous, and may be influenced by methodological factors. The integrity of data will be optimized by measuring both positive and negative affective responses to an event, by measuring responses in real time as close to the stressful event as possible, and by utilizing data collection methods that do not interfere with naturalistic behaviours. The aim of the current study was to explore short term prototypical responses to major stressor events on outcome measures encompassing both positive and negative indicators of psychological functioning. A novel mobile experience sampling methodology (m-ESM) was utilized to monitor both effective responses to stressors in real time. A smartphone mental health app ('Moodprism') which prompts users daily to report both their positive and negative mood, as well as whether any significant event had occurred in the past 24 hours, was developed for this purpose. A sample of 142 participants was recruited as part of the promotion of this app. Participants' daily reported experience of stressor events, levels of depressive symptoms and positive affect were collected across a 30 day period as they used the app. For each participant, major stressor events were identified on the subjective severity of the event rated by the user. Depression and positive affect ratings were extracted for the three days following the event. Responses to the event were scaled relative to their general reactivity across the remainder of the 30 day period. Participants were first clustered into groups based on initial reactivity and subsequent recovery following a stressor event. This revealed distinct patterns of responding along depressive symptomatology and positive affect. Participants were then grouped based on allocations to clusters in each outcome variable. A highly individualised nature in which participants respond to stressor events, in symptoms of depression and levels of positive affect, was observed. A complete description of the novel profiles identified will be presented at the conference. These findings suggest that real-time measurement of both positive and negative functioning to stressors yields a more complex set of responses than previously observed with retrospective reporting. The use of smartphone technology to measure individualized responding also proved to shed significant insight.

Keywords : depression, experience sampling methodology, positive functioning, resilience

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