ICIMH 2020 Abstracts

Systemic stress reactivity, specifically cardiovascular and cortisol reactivity, have been associated with reduced self-reported resilience and increased depression. Less is known about stress reactivity of respiration rate and its associated psychological correlates. This study examined respiration rate (RR) reactivity in response to cognitive stress and evaluated psychological correlates.

Methods: In a cross-sectional study, 64 adults completed self-report measures of resilience, dispositional mindfulness, perceived stress, depression, and sleep quality. Participants then completed 3 tasks: baseline period, breath counting, and a cognitive stress test (Portland arithmetic stress test [PAST]). RR was measured continuously throughout the tasks using a light elastic piezoelectric belt and assessed in BrainVision Analyzer. Participants that increased their respiration rate by 2 breaths per minute during the PAST were identified as responders, whereas participants who demonstrated a blunted respiration response (less than an increase of 2 breaths per minute) were identified as nonresponders. Two sample t-tests compared means of the self-reported measures between the 2 groups.

Results: Compared to nonresponders (n=19), responders (n=34) were associated with greater mindfulness (p=0.02), enhanced sleep quality (p=0.03), and less depression (p=0.01) and perceived stress (p=0.007). No significant differences in self-reported resilience were revealed (p=0.12). Average increase in RR during the PAST was strongly correlated to a decrease in RR during breath counting, relative to baseline (r=0.81).

Conclusion: Findings provide more evidence that a blunted stress response, as measured by an absence of a stress-induced increase in RR, may be associated with reduced well-being, and potentially, reduced resilience. Furthermore, responder status may be indicative of a pattern in which the individual can reduce RR under favorable conditions but appropriately respond to the initiation of stress.

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A SMART Approach to Reducing Atrial Fibrillation Symptoms

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Abstract

Purpose: Atrial fibrillation (AF) is the most common cardiac arrhythmia. In patients with paroxysmal atrial fibrillation (PAF), acute stress and negative emotions increase the