

Title: The Effects of Hong Kong Employees' Workplace Stress on Heart Rate Variability

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Research on workplace stress measurements varied without much accuracy and effectiveness. The objective of this study was to introduce a new quantitative assessment tool emWave Pro Plus (Institute of HeartMath) and to compare Heart Rate Variability (HRV) results with the Personal and Organizational Quality Assessment (POQA) and the Perceived Stress Scale (PSS). Eighty-five full-time employees who were working at least 40 hours per week in a large corporation participated in this study. Firstly, significant negative correlations were found between Subjective Stress and HRV measures: Perceived Stress and 5-minute Mean Inter-Beat-Interval (IBI), r = -0.217*; Perceived stress and 5min SDNN, r = -0.255* and Perceived stress and Ln 5min RMSSD, r = -0.282**. Secondly, significant negative correlations were found between age and the HRV measures: 1-minute SDNN (r = -.235, $p < 0.01$); 5-minute SDNN (r = -.290, $p < 0.01$); 5-minute RMSSD (r = -.395, $p < 0.01$); Total Power (r = -.272, $p < 0.05$); Very Low Frequency (r = -.215, $p < 0.05$) and High Frequency (r = -.402, $p < 0.01$). Thirdly, significant negative correlation was found between Normalized Coherence and Relational Tension (r = -.222, $p < 0.05$). Additionally, significant positive correlations were found between Emotional Stress and the Mean Heart Rate Range (MHRR), r = 0.216* and between Intention to Quit and 5-minute Ln Very Low Frequency (VLF), r = 0.234*. The research shows promising results and future studies should continue to tap into HRV as an objective measure of mental health and workplace stress.

Biography

Dr. Adrian Low has completed his PsyD from California Southern University. Dr. Adrian Low is the president of Hong Kong Association of Psychology as well as the Research director of Aditgo Ltd, a learning and research center in Hong Kong. Dr. Low is also a Heartmath's certified practioner. He has also started the Mindfulness Psychology Coaching movement in Asia with the mission of bringing everybody to the present moment. Dr. Low's dissertation was of a workplace stress related nature, which was the first research that utilized biofeedback devices in a large corporation situated in Hong Kong China.

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