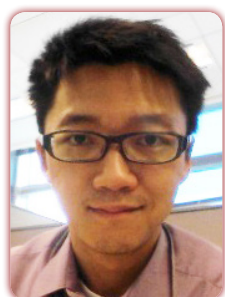


JOINT EVENT ON
24TH WORLD CARDIOLOGY CONFERENCE
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Effects of Hong Kong employees' workplace stress on heart rate variability

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). 85 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 5 min SDNN, $r=-0.255$ and perceived stress and Ln 5 min RMSSD, $r=-0.282$. Secondly, significant negative correlations were found between age and the HRV measures: 1-minute SDNN ($r=-0.235$, $p<0.01$); 5-minute SDNN ($r=-0.290$, $p<0.01$); 5-minute RMSSD ($r=-0.395$, $p<0.01$); total power ($r=-0.272$, $p<0.05$); very low frequency ($r=-0.215$, $p<0.05$) and high frequency ($r=-0.402$, $p<0.01$). Thirdly, significant negative correlation was found between normalized coherence and relational tension ($r=-0.222$, $p<0.05$). 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

Adrian Low is a Chartered Psychologist in the UK and he has attained his Doctor of Psychology in I/O and Clinical Psychology from California Southern University in the US. He has completed his Master's Degree in Education from the Chinese University of Hong Kong. He has received his BA in Religious Studies from the Hong Kong Baptist University. His doctoral dissertation on workplace stress has been published in numerous journals and magazines. He was a plenary speaker at the 29th World Summit on Positive Psychology, Mindfulness and Psychotherapy held in New York City (USA). He has served as President at the Hong Kong Association of Psychology where he provides professional psychotherapy and mental status evaluations. He is also an Adjunct Faculty member at Worcester University teaching Business Psychology.

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