

Unravelling the effects of acute stress outcomes on occupational experiences: Piloting of the STRESS at Work (STRAW) project in the Australian workforce

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Occupational stress is one of the most researched areas of psychological occupational epidemiology, whereby continuous high mental workloads, low job control and ongoing economic developments results in the need for adaption from office-based workers. To prevent chronic stress outcomes, early detection of acute stress in daily work experiences is essential; however, there are limited unobtrusive and continuous stress detection models available which utilise multimodal techniques from a number of information sources.

To address limitations, the STRESS at Work (STRAW) protocol was developed by Bollinger et al. (2020) to examine acute stressors in repeated day-to-day stress experiences among academic staff using multimodal methodologies. As this is a novel approach, further investigation is required to determine feasibility of the protocol in other contextual environments. As such, this study is a prospective observational study designed (1) to investigate the feasibility of Bollinger et al.'s (2020) protocol in examining occupational stress in Australian workers in sedentary roles, and (2) to understand the acceptability of the protocol to workers.

This study required replication of as much of the existing protocol as possible, which utilised wearable technology, ecological momentary assessments (EMAs) and secondary baseline surveys to measure work environment risk factors, stress outcomes, health-related behaviours and occupational activities of workers over a 15-day period. Data collection was conducted between 12 July 2021 and 20 August 2021, where seven participants from a project engineering firm in Perth, Western Australia were recruited.

Results identified wristband use and baseline survey completion were feasible for participants; however, acceptability for baseline surveys was low due to length and wording. Furthermore, feasibility and acceptability of the EMAs were low due to the high frequency of surveys, wording of scales and items, and incorrect triggering of the morning and evening EMA. Participant experiences were positive overall; however, modifications of the protocol are required prior to completing future studies to further increase feasibility and acceptability of the protocol in Australia.