

ABSTRACT

Occupational fatigue among pharmacists is a critical factor that can influence service quality and patient safety, particularly in clinical settings with high work rhythms such as CV. TLDI. This study aims to evaluate the level of pharmacist fatigue using a combined subjective and objective approach, namely the NASA Task Load Index (NASA-TLX) and Galvanic Skin Response (GSR). The NASA-TLX is used to assess perceived mental workload based on six primary dimensions, while the GSR is employed to measure physiological fatigue through skin resistance, which is associated with sympathetic nervous system activity. Data were collected from two pharmacists across four work-time intervals: the beginning of the shift, while attending to early patients, after a break, and near the end of the shift. Results from Sample 1 showed a decrease in GSR resistance from 82,610.30 Ω at the beginning of the shift to 21,137.03 Ω by the end, accompanied by an increase in NASA-TLX score from 32.00 to 76.00. Sample 2 exhibited a similar trend, with resistance dropping from 73,435.03 Ω to 21,159.20 Ω , and the NASA-TLX score rising from 48.00 to 74.67. The lowest resistance and highest NASA-TLX scores occurred during the early patient-serving phase and near the end of the shift, indicating peak fatigue both physiologically and mentally. In contrast, the post-break phase showed signs of recovery, reflected by an increase in resistance and a decrease in NASA-TLX scores. These findings demonstrate that the combined use of NASA-TLX and GSR provides a comprehensive representation of pharmacist fatigue. The integration of both instruments allows for more accurate and objective fatigue evaluation, serving as a valuable foundation for improving work systems and supporting managerial decisions aimed at maintaining workforce well-being and service quality.

Keywords: *Work fatigue, Pharmacist, NASA-TLX, Galvanic Skin Response (GSR), Skin resistance, Mental workload, Dermatology clinic*