More than a Paycheck: The Relationship between Perceived Occupational Stress and Health Indicators

Santos, Amy

The complex hormonal mechanisms of the autonomic nervous system provide the physiological conditions necessary to cope with a sudden crisis or emergency. Chronically stressful conditions cause ongoing activation of the Hypothalamic-Pituitary-Adrenal axis and have been linked to musculoskeletal, cardiovascular, and endocrine ailments. This research sought to identify statistically significant correlations between occupational stress and health indicators. Female teachers (N=51), aged 25-50, were administered Cohen's Perceived Stress Scale (2000) and an experimental Occupational Stress Scale (OSS-16). Job reference information, medical history, exercise and sleep habit data were also collected. Participants were measured for waist circumference, systolic and diastolic blood pressure, VO2max, and short-term memory. Regression analyses indicated a strong correlation between the two stress scales ($R=0.789$, $p<0.001$). No significant correlations between perceived or occupational stress and blood pressure or VO2max were identified, disproving the hypothesis. Correlations between occupational stress and waist circumference ($R=0.296$, $p=0.035$) and perceived stress and short-term memory ($R=-0.278$, $p=0.049$) were identified in support of the hypothesis. Correlation between occupational stress and teaching experience ($R=0.421$, $p=0.002$) was identified, as were correlations between perceived and occupational stress and sleep quality ($R=0.453$, $p=0.0001$; R-0.402, $p=0.004$). High participant involvement in regular aerobic exercise programs could have reduced cardiovascular correlations. This research suggests the validity of OSS-16 as a stress measuring tool, which if used in longitudinal studies, could expose the progression of the long-term health effects of chronic occupational stress.

Awards Won: