

Heat strain and work performance among traffic police officers in Kuala Lumpur

ABSTRACT

Introduction: The strong El Nino phenomena increase temperature in Malaysia that directly affects the health of traffic police officers who are highly exposed to high temperature and humidity while controlling traffic. **Objective:** The aim of this study was to determine the association between heat strain and work performance among police traffic officers. **Methodology:** The study is divided into two parts that is, first, a measurement of heat stress index at five different workstations at Kuala Lumpur during afternoon using wet bulb globe temperature. Second, the survey was distributed to gain information of work performances from the respondent. **Result:** Findings indicated that the heat stress index at five locations exceeded the threshold limit value ranging from 33.3 to 41.8°C for 75% work and 25% rest. The most prevalent heat strain symptoms were fatigue (57.9%), dizziness (31%), and muscle cramps (16.4%). Results from multiple regression showed that marital status and the perception of heat exposure are significantly associated with work performance after considering socio-demographical data, heat strain symptoms, and work characteristics. **Conclusion:** Traffic police officers were exposed to a high level of heat and perceived to reduce their work performance.

Keyword: Heat strain; Heat stress; Work performances