

Occupational Heat Exposure and Heat-Related Illness Among Local Authority Enforcers

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ABSTRACT

Objective: Persistently high temperatures due to climate change and El Nino phenomenon in Malaysia, pose serious risks that may increase the severity of heat stress and its impacts, especially for those working outdoors. This study assessed the exposure to heat among the local authority enforcers and the heat-related illnesses associated with heat stress. **Method:** A cross-sectional study was carried out among 50 local authority enforcers of Majlis Perbandaran Kajang (MPKJ) Selangor in charge of outdoor tasks (enforcing parking compliance) despite the hot weather. Modified survey questionnaires adopted from High Occupational Temperature Health and Productivity Suppression (HOTHAPS) were distributed among the workers and a Wet Bulb Globe Temperature (WBGT) was used according to the American Conference of Governmental Industrial Hygienists (ACGIH) guidelines to identify the effect of heat stress exposure towards health and to assess the WBGT index exposure from the work activities, respectively. **Findings:** The enforcers were exposed to excessive heat stress, especially when the outdoor tasks spanned from morning to afternoon. The highest intensity of exposure was between 11.00 am to 2.00 pm, which was reflected by the highest hourly mean WBGT values. Long durations of outdoor work and clothing factor (heavy cotton uniforms, hat, mask) were among the factors that restrain the efforts in reducing heat stress risks. **Conclusion:** Low level of awareness and inadequate information among local authority enforcers may lead to heat stress at work hence require intervention from many parties. Self-assessment and training are among the first few steps to manage heat-related illnesses. Optimum use of technologies through telephone apps can also be implemented in this job scope to reduce the exposure due to prolonged working hours outdoors.

Keywords: Heat stress, heat-related illness, local authority-enforcers
