

## ABSTRACT

### **Perceived commuting stress, health and well-being among office based employees in Kingston and St Andrew, Jamaica**

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Commuting stress is the stress associated with the daily commute. It is linked to the constraints of travelling and the perceived constraints on goal attainment. Commuting stress has been known to have deleterious effects on mental and physical health in the developed world.

This study aimed to determine the prevalence of commuting stress, its associated factors and its effect upon health and well-being among office-based workers in Kingston, Jamaica.

A cross-sectional survey of 1020 employees from public, private and quasi government companies was conducted. Associations were sought between perceived commuting stress and socio-demographic factors, physical and mental health status and lifestyle practices using random effects models. The dynamics of daily salivary cortisol secretion was used as an objective indicator of stress to assess the effects of travelling on a newly constructed highway.

The study response rate was 62.9%. The mean age of the study participants was  $35.4 \pm 10.14$  (range 17 - 63 years) and 67.3% of respondents reporting tertiary level education. The prevalence of perceived commuting stress was 72.1%. Random effects models showed that only systolic blood pressure had to be accounted for

with respect to clustering effects across study sites. Commuting stress was associated body mass index but not systolic or diastolic blood pressure, blood glucose or cholesterol levels. Further, it was significantly associated with general and mental well-being as indicated by the SF36 General Health, Mental Health and Final scores. However, these relationships were moderated by the Survey of Recent Life Experiences and gender. Preliminary evidence showed that travelling on the highway is associated with reduced commuting stress as indicated by salivary cortisol level.

Commuting appeared to be a significant source of stress for office based employees in Kingston and was significantly associated with health outcomes including systolic blood and mental health. Its association with chronic non communicable disease was not clear cut. Interventions to reduce this stress should include reduction in traffic congestion, improved transit systems and reduction of stress in the workplace and at home.

**Keywords:** Commuting stress; chronic diseases; Kingston Jamaica; traffic stress; SF36.