

OP 19 - Comparative Study of Environmental and Socio-behavioural Factors Influencing Dengue: Findings from a Study in Eastern Sri Lanka

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Background: The Ministry of Health in Sri Lanka has reported over 80,000 dengue cases and over 200 deaths from January to July of 2017. This is in 15 districts including Batticaloa district in Sri Lanka where monsoon rains most heavily affected with failures to clear mosquito breeding grounds primarily in urban and suburban areas. The study gives an insight into the surveillance, prevention and control of an infectious disease as well as evaluating how it impacts public health in general.

Objectives: This project aims to bring an understanding of the individual, familial and contextual risk and protective factors for dengue infection and the consequences of dengue contraction from an infectious disease epidemiological perspective.

Methodology: Twenty dengue prevalence villages in Batticaloa district were chosen for the study as one of the high occurrence locations for dengue. The sampling method is snowball-purposive and random sampling. The present study was done by giving questionnaires to both dengue infected and non-infected people and had direct interview with the same and health professionals. This study examined the individual, family and community factors placing individuals at greater and lesser risk of contracting dengue and experiencing its consequences between dengue patients (n=213) and non-infected people (n=100). The study informed us which of the hypothesized factors are significant predictors of dengue risk, resilience and consequences of contraction.

Results and conclusions: How the environmental, sociobehavioral risks and protective factors influencing dengue infection and implication were found from this study. Individual socioeconomic and demographic characteristics (gender, education, race), physical contextual factors (urbanity/rurality, clustering of houses, within-home density, distance to stagnant water) and social contextual factors (familyism, collectivism, community prevention) influence dengue infection directly and indirectly through cognitive-behavioral processes (knowledge and preventive behavior). Government prevention services directly reduce dengue infection. Psychological consequences of dengue contraction were identified that were dengue contributes to elevation of depressive and anxiety symptoms.

Keywords: Dengue infection, ecological influence, sociodemographic influences