

ABSTRACT

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Background: Dengue is a vector born, viral infection with possible fatal outcome and endemic in Sri Lanka. It has no definite treatment to manage or vaccine to prevent the occurrence. *Aedes aegypti* and *Aedes albopictus* are common vectors in Sri Lanka. WHO recommends behavior change of the community to control vector breeding sites in peri-domestic environment as an effective and sustainable vector control method. Public perceive changing the behavior to control dengue vector breeding sites is a challenge. Bandura proposed that Perceived Self Efficacy (PSE) is an internal determinant and predictor of the human behavior in response to challenges in life events.

Aims: This study was performed to determine the role of PSE in dengue vector control breeding site control activities among residents in Kundsale MOH area.

Methodology: This descriptive cross sectional study was conducted in Kundasale MOH area. A sample of 600 residents were selected from households by cluster sampling of population proportionate to sample method. The respondent was the most responsible adult in the family with accountability for the family issues and the person who play a main role in household management. As a data gathering tools, a questionnaire form of dengue vector breeding site control activity self-efficacy scale (PSEQ) and check list of potential dengue breeding sites in the household and peri domestic environment were used. Questionnaire developed by principle investigator with the help of the supervisor. It was translated from English to Sinhala and Tamil and was used to measure respondent's perceived self-efficacy. Questionnaire and scale were completed by the respondents with the assistance of the interviewer.

Results: There was a statistically significant negative correlation between the PSE scores of the respondents and container index at house hold level with correlation coefficient of

($r = -0.176$). Overall Container Index (CI) was 3.6%, House Index (HI) was 22.5% and Breteau Index (BI) was 39.3%. Mean percentage score of perceived self efficacy was 64.7%. There was a significant association between PSE and HI ($P < 0.001$), CI ($P < 0.001$) and BI ($p < 0.001$). Significant association between PSE and religion ($p = 0.007$), education level ($p = 0.016$), type of occupation ($p = 0.003$), land size (0.0001) and the number of influence types ($p = 0.0001$) were observed. Two thirds of the population was observed to be in average to high perceived self efficacy level (397/600).

Conclusions: The results of this study showed that the perceived self efficacy was possibly an important determinant of dengue vector breeding site control by the residents of Kundasale. It may be necessary to address the level of self efficacy of residents in Behavior Change Communication (BCC) activities designed to reduce peri domestic breeding sites of dengue vectors.

Key words: Perceived Self Efficacy, Dengue vector, Behavior Change Communication, Breteau Index, House Index, Container Index