

ABSTRACT

A cross-sectional descriptive study was conducted in a selected pesticide formulating plant, Mingalardon Township, Yangon during October, 2018 to explore the knowledge on occupational hazards, awareness and practice on safety measures, assess the work related stress and compare AChE (Acetylcholinesterase) level (baseline and study period) among pesticide factory workers and find out their associations. In this study, 137 pesticide factory workers who have tested blood AChE level last 6 months were selected and interviewed face-to-face using pretested semi-structured questionnaires. The vast majority of respondents had high knowledge on chemical hazards and pesticide. On the other hand, they had low knowledge for other occupational hazards. According to knowledge and practice on safety measures, the overwhelming majority is in high knowledge group and 98.5% are in good practice group respectively. Besides, all workers (100 %) had good attitude on safety measures. Three quarter of the workers had moderate level of stress according to occupational stress index.

In the study, mean acetyl cholinesterase level of workers after 6 months had significantly decreased than baseline level ($p=0.003$). Workers who lived in rent house and dormitory decreased AChE level more than those who lived in own house ($p=0.024$). The workers who were paid salary less than 170,000 MMK had low knowledge level in safety measures compared to the workers with salary more than 170,000 MMK ($p=0.030$). General workers of the factory had low knowledge level than the officers ($p=0.027$) in safety measures. Furthermore, there were significant relations in workers' educational level ($p=0.034$), marital status ($p=0.005$) and their stress level. Moreover, workers who stayed at their own house had less stress level (OSI) than workers who stayed at other housing ($p=0.023$). The respondents whose salary less than 170,000 MMK were much higher mean score of OSI than other respondents ($p=0.010$). Therefore, health education for safety measures in pesticides handling, more responsible and accountable actions from administrative department, and better close control and supervision from Ministry of Health and Sports and Ministry of Labour, Immigration and Population should be undertaken in time.