KINGDOM OF THAILAND

Cognitive Response of Long Period Surgical Resident Work

General Objective

To study effects of resident work hours onto resident cognitive functions

Specific Objectives

1. To study relations between factors-personal deprivation and decrease in cognitive function test scores of residents.
2. To compare cognitive function test scores at pre call and post call of residents, categorized by factors-personal characteristics, total work hour/week, workload, shift length, work stress, and sleep deprivation to rule out effects of night on-call duty as well as to suggest solutions.
3. To study relevant impacts incurred by night on-call duty and to make recommendations

Abstract

This research is cross sectional to examine effects of long hours work on cognitive function of surgical residents. As a Sample group 50 surgical residents from Ramthibodi hospital, were chosen, out of them prevalence rate of reducing cognitive function score was at 80% The residents working hours per week was at 139.65 hours, median shift length was 85 consecutive hours, mean workload was 16.95 hours a day and the age limit was at 29 years. Evaluation of research results was to assess cognitive function test scores during pre-call and post-call and post-call by 3 psychiatric sub-tests, namely, Digit Span, Digit symbol, Stroop Test and to analyze data collected from interviews to rule out relations among all factors possibly causing the decrease of cognitive function test score.

Research findings reveal that there was a significant decrease of cognitive function test scores in terms of memory, attention, reaction time and executive function after a night on-call duty. Moreover, after night on-call duty, subjects were prone to be drowsy under non-stimuli circumstances with significant implications. Workload,

total work hours, total surgery, department of work, sleep hour during on duty and sleep efficiency had significant effects on the decrease of cognitive function test scores. Nonetheless, the relation between the factors of stress scores, shift length, age, work experience, academic year and hospitals before residency program and the decrease of cognitive function was not significantly unfound.
Based on the findings, it is recommendable that firstly a number of total work hours, workload, total surgery should be reduced. Secondly efficient sleep and a number of sleeping hours during on call should be increased. Lastly, night on-call duty rosters be improved to promote work quality and health of practitioners.

KEY WORDS

Cognitive Response / Long Period Work / Surgical Resident

ASEAN OCCUPATIONAL SAFETY AND HEALTH NETWORK (ASEAN-OSHNET)
Ministry of Labour, Thailand

Occupational Safety and Health Division
Department of Labour Protection and Welfare
Ministry of Labour, Thailand