

ABSTRACT**CORRELATION BETWEEN NIGHT SHIFT CLINICAL ROTATION TOWARDS ATTENTION AND COGNITIVE LEVEL OF THE CLINICAL CLERKS IN DR SOETOMO HOSPITAL, SURABAYA.**

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Introduction: Attention and cognitive performance may be impaired by fatigue and sleep deprivation. Sleep deprivation engendered usually by night shift clinical rotation is pretty common in clinical clerks. This study's aim to correlate the effects between night shift clinical rotation towards attention and cognitive level of the clinical clerks in Dr. Soetomo Hospital, Surabaya

Methods: An observational cohort study was conducted in a period of May 2016-January 2017. We examined 84 subjects, divided into 2 groups. The case group consists of clinical clerks who did night shift clinical rotation in that day. We use "Whole Body Reaction Type II" machine using three methods, which are simple visual, simple auditory, and choice auditory reaction time; and "Calculated" software to collect the data regarding reaction time and cognitive function, especially in arithmetic.

Results: The age of the subjects was between 20-23 (mean $22,30 \pm 0,741$) years old. Bivariate analysis showed there is significant decrease of attention level in relation with night shift clinical rotation and amount of sleep ($p < 0,001$), but no correlation towards cognitive level.

Conclusion: Long hours of night shift clinical rotation (16 hours a day) reduce the attention level (increase the reaction time) of clinical clerks. Clinical clerks are so drained by their schedule, including the clinical rotation. It may interferes their circadian rhythm makes they rarely in the best state of mind to learn and could not do their best in emergency situations, which can lead to human error, medical negligence, and malpractice.

Keyword: Reaction time, Clinical clerks, Attention, Cognitive, Night shift clinical rotation.