Indian Journal of Basic and Applied Medical Research; December 2014: Vol.-4, Issue- 1, P. 289-294

**Original article:**

**Study to evaluate the effect of habitual sleep duration on short term memory amongst medical students**

 **Dr. Swati Gavit 1 ,** **Dr. Laxmi Patel 2**

1 Registrar , 2Associate Professor, Department of Physiology,

Lokmanya Tilak Municipal Medical College and General Hospital, Sion, Mumbai -22.

Corresponding author : Dr. Swati Gavit

Date of submission: 12 November 2014 ; Date of Publication: 15 December 2014

**Abstract**:

 **Introduction:** sleep is essential for memory and task performance. Chronic sleep deprivation is very common in today’s modern life. Medical students are major victim of chronic sleep deprivation because of the course schedule and demands. Thus, present study is aimed at evaluating the effect of habitual sleep duration on short term memory amongst medical students.

**Material and methods:** Habitual sleep duration is obtained by asking the subject to record daily sleeping and awakening time for a week and then average was taken, short term memory was assessed by using following tests – 1) auditory free recall test 2) pictorial free recall test 3) Auditory reaction time 4) visual reaction time. Study was done on medical students of L.T.M.M.C. & Genaral hospital, aged 18 yrs – 30 yrs.

**Results :** Data analysed by one way ANOVA ( with Dunnett’s test ) which shows

1) As the duration of sleep was increasing, scores were decreasing for auditory free recall test as well as for pictorial free recall test, meaning person who habitually sleeps more has low scores as compared to those who sleep less. 2) For auditory & visual reaction time, scores were increased with the increase in the sleep duration.

**Conclusion:** Our study demonstrated that habitual less sleep duration has association with Increased auditory as well as visual memory. Decreased auditory & visual reaction time. Medical students and residents get less time to sleep still they perform best at their work place, this is probably due to brain plasticity.

**Key words:** memory sleep