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EFFECT OF SLEEP ON DECLARATIVE MEMORY FOLLOWING ASSOCIATIVE INTERFERENCE IN ADOLESCENTS

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ABSTRACT

Background

In recent years, the effect of sleep on memory consolidation has received considerable attention. Because the majority of adolescents do not obtain the recommended amount of sleep, it is critical to study the cognitive effects of normal sleep. These effects of sleep on memory are less studied in adolescents. Given the importance of adolescent memory on academic performance and consequent social functioning, a deeper understanding of the effect of sleep on memory is needed.

Aim

To study the effect of sleep on declarative memory and especially when declarative memory is challenged with associative (similar type of) interference, in first and second year college students.

Materials and Methods

Two hundred medical students were divided into five groups of 40 each. Paired word list was taught to them and their memory tested for the same directly or after teaching a similar word list (i.e) after interference. Either a period of sleep or wake existed between the teaching and testing sessions.

Results

There is highly significant increase in the performance of the sleep groups compared to the wake groups.

Conclusions

The results of the present study clearly reveals the fact that forgetting is less in the sleep groups, both in sleep without interference and sleep with interference groups.

KEY WORDS: Sleep, Sleep Stages, Memory, Declarative Memory, Consolidation

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