Correlation between Sleeping Disturbance and Academic Achievement in University Female Students

Authors : Amel Fayed, Shaden AlSubaih, Nouf Al-Qahtani, Asmaa Gosty, Asma Aljuhaimi

Abstract : Introduction: Sleep difficulties are vastly predominant among adults and affect different aspects of their life. Many literatures found out that females are more liable to suffer from sleeping problems. College students are typical example of people dealing with daily pressure and stress to fulfill the daily tasks and responsibilities. In addition to their ultimate goal of achieving excellent academic records which require their full concentration and effort. Consequently, many of them start complaining of sleep deprivations which can undesirably affect their academic achievements. This study was aiming to investigate how prevalent is sleeping disorders among different colleges in the university and its relation their academic achievements. Methods: A cross-sectional study of female university students at Princess Norah Bint Abdulrahman University using self-administered questionnaire was conducted. Insomnia Severity Index (ISI) was used to assess different grades of insomnia. Students were requested to answer the questions evaluating their sleeping habits over the last two weeks. Participants reported their latest Grade Point Average (GPA). According to ISI, insomnia severity is reported as 'No clinically significant', 'Subthreshold ',' Clinical moderate insomnia' and 'Clinical severe'. Results: In the current study, 228 students participated; 172(75.4%) from medical colleges and 56 (24.6%) from non-medical colleges. About 80% of them claimed to have never taken any medications to help them sleep while only three students confirmed their regular use of sleep-inducing medications. About 16% of the students drink milk or other hot drinks to help them fall asleep. None of the students was suspected of having obstructive sleep apnea or apparent psychiatric disorder. According to ISI, 182 (79.8%) students suffered from subthreshold insomnia, 37 (16.2%) had clinical insomnia (moderate severity) and 9 (3.9%) of students had sleeping problems of non-clinically significance level. However, none of students was found to have severe clinical insomnia. Clinical moderate insomnia was reported in 15.1% of medical students and 19.6% of non-medical students. Moreover, about 82% of medical students suffered from subthreshold insomnia compared to 73.2% of non-medical students. This difference was not statistically significant (P=0.24). About 63% of medical students and 48% of non-medical students believed that high percentage of their colleagues are suffering from insomnias (p-value 0.08) The association between GPA and insomnia revealed that; 19.5% of low GPA group compared to 9.3% of high GPA group had clinical moderate insomnia. This association was not statistically significant (p=0.15). The correlation between the GPA and the ISI score was negative but not conclusive (r=-0.08, p-value = 0.29). More than 92% of all students agreed that sleeping problems affect their academic achievement to varying degrees. Conclusion: our results suggest that insomnia is commonly prevalent among female university students and might affect the students' achievement. This study provides preliminary data about the quality of sleep among medical and non-medical university students which may be used to promote the healthy sleeping habits among female students.

Keywords : academic achievement, females, insomnia, university student