

The Relationship Between Sleep Deprivation and Stress Levels in University Students

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The present study used a correlational research design to determine how sleeping less than 7 hours per night may result in higher stress levels compared to individuals who sleep 7-9 hours per night. A total of 53 university students, ages 18-64, participated voluntarily. Participants filled out a 7-day sleep log and took the abbreviated Profile of Mood States (POMS) to measure their fatigue levels. Participants were randomly assigned to take the Stroop Color and Word Test (SCWT), or the Mental Arithmetic Task (MAT). The multiple regression analysis produced a main effect for condition, $b=1.42$, $p=.02$. Participants who completed the MAT reported higher levels of stress (2.84) than those who completed the SCWT (1.42). A significant main effect for pre-task fatigue was also found, $b=0.28$, $p=.006$. Participants who felt fatigued before completing either task reported higher levels of stress (3.65) than participants who were less fatigued (0.44). Both of these main effects were suitable by a task x fatigue interaction, $b=-0.16$, $p=.02$. The stress level of high fatigued participants (1.92) was similar to the stress level of low fatigued participants (2.25) after completing the MAT. In the SCWT group, high fatigued participants reported more stress (2.50) than the less fatigued participants (1.07). These results suggest that sleep deprivation decreases the threshold for the perception of stress, but it does not increase the amount of negative distress.