

Gender differences in sleep, sleepiness and chronotype

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There is increasing data demonstrating that women present more daytime sleepiness and greater need of additional sleep. The purpose of this study was to determine if the gender effect in sleepiness was related to chronotype. University students (290 girls and 250 boys) completed a questionnaire including the Epworth sleepiness scale (ESS), the Horne and Ostberg scale for chronotypes characterization and sleep habits. Results indicated that the ESS varied significantly across the different chronotypes in girls but not in boys. Girls reported longer habitual sleep duration, higher sleepiness score among the evening type (ESS = 8.5) in comparison to the intermediate (ESS = 6.56; $p=0.039$) and the morning type (ESS = 6.5; $p=0.033$). Moreover, the ESS score was significantly ($p=0.024$) higher in girls (6.65 ± 0.19) than in boys (5.99 ± 0.24). The morningness/eveningness scale was also significantly ($p=0.026$) higher in girls (54.2 ± 0.43) than in boys (51.95 ± 0.65). The morning type and the evening type represented respectively (28% and 4.5%) in girls and (27.7% and 8.8%) in boys. In conclusion, this study showed that the girls present more sleepiness and more morning types than boys. In girls, evening chronotype was associated to higher daytime sleepiness. One of the perspectives of this study is to elucidate the determinants of this gender effect in sleepiness and chronotype.