

The Effects of Individual Biological Rhythm Differences On Sleep Quality, Daytime Sleepiness and Correlations with Dissociative Experiences

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Objective:

Individuals who differ markedly by chronotype, i.e., morning-type or evening-type, differ on a number of psychological, behavioral, and biological variables. Disruption in the usually integrated functions of consciousness, memory, identity and perception is definitional to dissociation, particularly pathological forms of dissociation. Dissociative experiences possess dream-like properties, which might be fueled by a labile sleep-wake cycle. Our study aimed to investigate the effects of individual biological rhythm differences on sleep quality and daytime sleepiness in conjunction with dissociative experiences.

Method:

Participants were 372 undergraduates, ranged between 18 and 26 years of age, 61.6 % were females. The volunteers completed a package of psychological instruments including the Morningness–Eveningness Questionnaire, Dissociative Experiences Scale, Insomnia Severity Index, and Epworth Sleepiness Scale.

Results:

We performed mediation regression analysis of relations between dissociative symptomatology and chronobiological features mediated by insomnia and sleepiness. We run a multiple mediator model utilizing from the SPSS script in which we bootstrapped 5000 times.

We found direct effect of the MEQ scores on the DES scores was not substantial. Direct effect of the MEQ on the ESS was not significant; whilst the direct association between the ESS and the DES was significant ($\beta=0.79$; $p<.01$). Evening-type individuals were more prone to insomnia ($\beta=-0.14$; $p<.01$) and insomnia was a direct predictor of dissociative symptomatology ($\beta=0.47$; $p<.01$). Eveningness was significantly associated through insomnia with dissociation ($\beta=-0.07$; $p<.01$). The multiple mediator model is illustrated in Figure 1.

Discussion:

We found significant associations of pathological dissociation in terms of DES-taxon with insomnia and sleepiness.