

### The association between sleep timing, eating behavior, and obesity in young adults

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#### Abstract

The aim of this study was to analyse the association between sleep timing, eating behavior, and risk of obesity. The study included 1577 participants with an average age of 19.5 +/- 4.8 (range: 13-40) y, women: 76%. Each participant provided personal information and filled out five questionnaires: the Munich Chronotype Questionnaire, the Pittsburgh Sleep Quality Index, the Zung Self-Rating Depression Scale, the Yale Food Addiction Scale, and the Dutch Eating Behavior Questionnaire. Restrained (OR 1.54, 95% CI 1.24-1.92), external (OR 1.67, 95% CI 1.34-2.10), and emotional (OR 2.31, 95% CI 1.79-2.98) eating behaviors, were found to be independently associated with food addiction. Obesity was positively associated with restrained ( $\beta = 0.41$ ), and emotional ( $\beta = 0.12$ ) eating behaviours in 13-40-y-olds and with food addiction ( $\beta = 0.12$ ) in 13-20-y-olds. Poor sleep quality was positively associated with all three types of eating behavior ( $\beta = 0.10-0.15$ ). Restrained eating behavior was negatively associated with chronotype ( $\beta = -0.08$ ). Emotional eating behavior was more often observed in females ( $\beta = -0.18$ ) and in persons with depression ( $\beta = 0.16$ ). Social jetlag was associated with the external eating behavior ( $\beta = 0.09$ ) in 13-20-y-olds. Promising direction for further research in the field of chrononutrition is to study the relationship between chronotype, restrained eating behavior, and obesity.

#### Keywords

#### Author Keywords

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