THE RELATIONSHIPS BETWEEN SLEEP DURATION, PREOCCUPATION WITH FOOD, AND PERCEIVED DEPRIVATION IN UNDERGRADUATE STUDENTS

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Purpose: Short nighttime sleep over a prolonged period of time may cause changes in multiple physiological pathways that lead to a positive energy balance and net weight gain. However, little is known regarding whether insufficient sleep quantity may be linked to an increase in preoccupation with food or feeling deprived, therefore contributing to weight gain. It was hypothesized that sleep duration may influence thoughts about food, specifically preoccupation with food and perceived deprivation. The purpose of the study was to examine the relationships of sleep duration preoccupation with food and perceived deprivation, and chronic unsuccessful dieting in undergraduate students.

Methods: The study was approved by The University of Texas (UT) at Austin Institutional Review Board for human subjects protection. The study design was a cross-sectional, correlational survey, using self-report data from a convenience sample (n=130) recruited on the UT Austin campus. Participants must have been between the ages of 18-24 and been enrolled as UT Austin undergraduates to participate. Instruments included a demographics questionnaire along with self-report of sleep quantity, the Revised Restraint Scale, and the Perceived Deprivation and Preoccupation with Food visual analog scales.

Findings: The sample consisted of 54 males (41.5%) and 76 females (58.5%), average age of 20 years old (SD=1.42), with most participants being Caucasian (33.1%), Asian (31.8%), and Hispanic (23.3%). The self-reported mean average sleep length on weekdays was 6.47 hours (SD=1.57), while average sleep length on weekends was 7.81 hours (SD=1.90). The most commonly reported reasons preventing nighttime sleep were studying, leisure activities, social activities, and employment. The most commonly reported sleep problems were inconsistent sleep patterns and waking up at night. Self-reported average sleep duration was significantly negatively correlated to preoccupation with food (r = -.20, p<.05). Average sleep duration was not significantly correlated with perceived deprivation. There were no significant relationships between chronic unsuccessful dieting (total score on the Revised Restraint Scale) and preoccupation with food or perceived deprivation.

Conclusions: Participants who reported longer sleep durations reported less time spent preoccupied or thinking about food. It may be that shorter sleep durations cause physiological changes that result in individuals spending more time thinking about food. Average sleep duration was not associated with perceived deprivation. To further understand the relationship between sleep and eating patterns, additional research is warranted that measures actual sleep time and food intake.

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