

Associations between Sleep Problems and Disordered Eating in Japanese Adolescents: A Cross-Sectional Study

Authors : Takaharu Hirai, Yuta Mitobe, Hiromi Hirai

Abstract : Introduction: Eating disorders (ED) are serious psychiatric disorders that affect individuals, especially adolescents. It has been suggested that nonclinical ED-like characteristics are related to sleep problems. However, studies exploring the association between potential ED and sleep disorders have primarily been conducted in Europe and the United States. We conducted a survey of Japanese adolescents to investigate this claim. Method: In this cross-sectional study, 398 school-aged adolescents, aged 12-18 years old, matched for gender ratio, responded to a self-administered questionnaire survey. We used the Eating Attitudes Test-26 (EAT-26) and the Athens Insomnia Scale (AIS) to measure potential ED and sleep problems, respectively. In this study, participants with an EAT-26 total score of 0-19 points were classified as non-ED, while those with scores of 20 points or higher were classified as potential ED. Result: Of the 398 participants, 17 (4.3%) had an EAT-26 total score of 20 or higher. Among boys, the rate was 6 of 199 participants (3%), and among girls, the rate was 11 of 182 participants (6%). There were 89 participants (22.4%) with an AIS score of 6 points or higher, of which 36 (17.6%) were boys, and 53 (27.5%) were girls. Adolescents with potential ED had significantly higher rates of daytime sleep problems than those without ED. Further, while examining the types of sleep problems, adolescents with potential ED had greater problems with a sense of well-being and physical and mental functioning during the day. In contrast, no significant associations were found between potential ED and sleep initiation, awakenings during the night, early morning awakening, total sleep duration, or overall quality of sleep. Finally, nocturnal and daytime sleep scores were significantly associated with dieting, bulimia, and oral control EAT-26 sub-scores. Discussion: While Japanese adolescents with possible ED do not experience nighttime sleep problems, they do experience problems related to well-being and mental and physical functioning, which are indicators of daytime sleep problems. This may assist with early detection of disordered eating in adolescents. The study suggested that professionals working towards adolescent mental health issues need an approach that comprehensively integrates both sleep problems and potential ED.

Keywords : adolescents, potential eating disorders, sleep problems, eating attitudes test-26

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