RE: “SHORT DURATION OF SLEEP AND UNINTENTIONAL INJURIES AMONG ADOLESCENTS IN CHINA”

We read with great enthusiasm the Journal article by Lam and Yang (1) examining the association between short duration of sleep and injuries. Although we applaud the authors’ efforts to bring up the critical issue of short duration of sleep among Chinese teenagers, we think that several points are deserving of attention.

Living in a culture that has more than a thousand-year tradition of rigidly hierarchical talent selection, Chinese teenagers, and their parents as well, have been driven predominantly by a national college-entrance examination (similar to the Standardized Achievement Test in the United States), a 3-day ordeal on which a single point difference can mean radically different life options. Students, particularly those in high school, are struggling with chronic stress on a daily basis to secure a spot at college or chase elite-university credentials. The resultant psychiatric problems, such as depression and suicidal tendency, are plaguing Chinese adolescents, their families, and the society as a whole. A recent survey conducted among 140,000 high school students in China discovered that 17 percent of the teenagers admitted that they had to stop their daily activities for 2 weeks or longer because they felt too depressed or even desperate during the past 12 months. Over 20 percent of students interviewed had considered committing suicide, and 6.5 percent had made plans to kill themselves (2). China’s suicide rate is among the world’s highest, and adolescents are the population with the highest suicidal tendency in China (3).

The association that Lam and Yang (1) observed might simply reflect a relation between chronic stress and unintentional injuries since sleep deprivation can be rooted in stress (4), and stress has been well documented to be a risk factor for unintentional injuries (5). It might be impossible to separate a generic stress effect from short sleep duration because of their strong association. However, stratifying the analyses by school grade (three levels only) might be an alternative if “the stratification [of sampling was] done according to year of high school” (1, p. 1054). Conceivably, stress increases as the students move to their senior school years. Students are required to take the college-entrance examination at the end of the third year of high school, and the test-oriented classes and after-school programs become more and more intensified semester by semester during 3 high school years. Grade in school might be a good surrogate for the indicator of stress level, and stratification by grade provides insights into the potential modeling role from chronic stress on the association between short sleep duration and injuries. It has also been suggested that the variable of age be eliminated and grade be retained as a covariate if no modifying effect is observed. Age is a more potent mediator than grade of psychosocial development among early adolescents (6). Among later adolescents, however, grade may be more relevant.

Taking a daytime nap has been an interesting phenomenon and remains popular among Chinese. A nap can be physiologically valuable if it is short and timed properly. Positive neuron-psychological effects have already been observed with regard to reaction time (7), alertness, performance, and balance (8). It would have been instructive if the authors had included information on daytime naps, if available.

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REFERENCES


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