

Quebec Students Snooze Their Way to Success:

National Recipient of the 2020 Health Promoting Schools Champion Award

By Reut Gruber, McGill University; Gail Somerville, Douglas Mental Health University Institute; and Cindy Finn, Lester B. Pearson School Board

Chronic sleep loss affects a large proportion of the student population. Several recent large-scale studies found that one-third to one-half of Canadian youth don't get the amount of sleep recommended for their age, and that 60 per cent of this population reported feeling tired in the morning. Thousands of articles have provided unequivocal evidence that sleep is critical to achieving the key goals to which Canadian schools are committed; namely, maximizing the academic success, mental health, and physical health of their students.

A modest but chronic reduction of just one hour of sleep per night has been shown to have a significant negative impact on performance on tasks measuring executive functions and attention. A comparison of school performance measures with reported total sleep time found that students who had grades of C, D, or F averaged 25 to 30 minutes' less sleep per weeknight than did their peers with better grades.

In addition, higher sleep efficiency is associated with better report card grades in Mathematics, English, and French among Canadian students. Sleep deprivation also affects students' mental health, as it's associated with high levels of depression, inattention, drug use, and suicidality. In terms of



physical health, sleep deprivation weakens the youth immune response, making students more likely to get sick.

Despite the pervasiveness and magnitude of sleep deprivation and poor sleep habits in Canadian youth, recognizing the importance of sleep and prioritizing sleep health as a part of school health curricula are neglected by most Canadian schools. Furthermore, the tools required to support the behavioral changes needed to optimize sleep are generally lacking.

To address this problem, our Quebec-based partnership has pioneered the integration of sleep health education into school curricula and has demonstrated that this approach extends and improves sleep and enhances academic performance. The partnership, which has been rooted in community-based participatory research since 2007, includes the Riverside School Board (RSB), the Lester B. Pearson School Board, and the Attention, Behaviour, and Sleep Lab at McGill University / Douglas

Research Centre in Montreal. The partners comprise the main stakeholders, including school principals, teachers, parents, students, school psychologists / mental health workers, physical education experts, and key administrators.

Between 2007 and 2015, we created, implemented, and evaluated Sleep for Success (SFS), a comprehensive, multi-module, school-based sleep health education program. SFS was integrated into the curricula of elementary schools. Participation in SFS was associated with significant improvements in children's sleep and report card grades in Mathematics and English. Since 2015, our partnership has gradually shifted its focus from elementary school students to adolescents, who differ from school-aged children, in terms of their sleep patterns and preferences and in the ways they think, feel, and interact with others.

The potential targets for change and the most suitable strategies to facilitate improvements in sleep behaviour were expected to be different in this older age group, so we created, in partnership with Johanne Boursier and Sujata Saha from Heritage Regional High School, a school-based sleep intervention tailored to the developmental, psychological, and physiological characteristics of adolescents. The resulting data show significant improvements in students' sleep, sleep behaviour, and mental health. In April 2020, the partnership was recognized by Physical Education Canada and named as

the national recipient of the 2020 Health Promoting Schools Champion Award.

The most recent implementation of this program took place just before the COVID-19 pandemic outbreak. During the pandemic, our partnership continued to work remotely, documenting the impact of schedule changes on students' sleep. Typically, our key findings were that developing adolescents had a two-hour shift in their sleep, longer sleep duration, improved sleep quality, and less daytime sleepiness compared to what was observed under the regular school-time schedule. Most students extended their sleep, and our preliminary findings indicated that students who participated in the SFS intervention just before the school closure had better sleep hygiene during the pandemic and their sleep quality was better than students in a control group.

Due to disruptions in typical school schedules and the extended school shutdown that occurred in the spring of 2020, students have been able to sleep longer during the COVID-19 pandemic. Since the return to school in Quebec this fall, teachers have also worked hard to better recognize and accommodate their students' needs. Unfortunately, teachers' stress levels have increased significantly during the pandemic.

Intense prolonged stress has a negative impact on sleep. In addition, high levels of stress and poor sleep influence each other over time. An individual's stress levels affect both the extent to which daily experiences interfere

with sleep and the extent to which poor sleep increases the stress experienced during the day. Given that students' success is directly related to educator well-being, the time has come to ensure teachers have access to the knowledge and tools they need to protect their sleep and help students better manage their sleep habits.

Tips for Better Sleep

Prioritize your sleep. This is easier said than done, but it's possible! Clear your schedule so you can go to bed when you're sleepy and have enough time to get your optimal sleep duration.

Determine your optimal sleep duration. Sleep shouldn't be too short or too long. Rather, the optimal duration should be based on the person's age and their feeling of being well-rested. A pre-determined wake-up time, such as the school or work starting time, should be used as an anchor. From there, count back seven, eight, or nine hours (depending on your age and your individual preference), and determine a desired bedtime.

Small extensions count. If you can't get your ideal sleep duration on a regular basis, remember, even small changes count! Studies have shown that small increases in sleep duration—even 28 minutes per night on a regular basis—are associated with improved functioning in school.

Protect yourself against the impact of sleep deprivation. If you're about to enter a busy stretch, extending your sleep prior to this period will reduce, to some extent, the impact of sleep deprivation on your attention and performance.

Sleep! Identify positive reinforcements you can give yourself for adhering to your set sleep schedule, and then follow through.

The effect of sleep deprivation can only be undone by ensuring you get enough sleep. ○

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