A study of the sleep patterns of Australian children and adolescents has found that around a quarter of 12-15 year-olds and half of 16-17 year-olds are not getting enough sleep on school nights to meet national sleep guidelines.

The findings from the Growing Up In Australia Longitudinal Study of Australian Children show that large numbers of Australian adolescents slept less than the recommended minimum for healthy growth, learning and development.

Australian Institute of Family Studies Director, Anne Hollonds said the study found links between shorter sleep times and higher rates of anxiety and depression.

“The group most at risk of not getting enough sleep on school nights is older adolescents who may need to be taught how to improve their sleep, by reducing caffeine intake, limiting internet use before bedtime, keeping a consistent sleep routine and getting plenty of physical activity,” she said.

“Younger age children, especially boys, are also at risk of not getting enough sleep on non-school nights, highlighting the importance of parents setting regular bedtimes, even on weekends and holidays for younger children.”

Institute Research Fellow, Dr Tracy Evans-Whipp said sleep guidelines from the Australian Department of Health recommend that children aged 5-13 years have between 9 and 11 hours of sleep and adolescents aged 14-17 years between 8 and 10 hours of sleep.

“The good news is that most children aged between 6 and 11 years are generally getting enough sleep on school nights, highlighting the importance of enforced regular bedtimes,” she said.

“However, around a quarter of 12-15 year-olds and half of 16-17 year-olds don’t get enough sleep on school nights and commonly try to catch up by sleeping longer on weekends.

“This ‘yoyo’ pattern across the week increases with age. It also leads to disrupted sleep wake cycles and goes against the sleep guidelines which advise regular sleep and wake up times.”

Mental health

Dr Evans-Whipp said the study confirmed that insufficient sleep was linked to poorer mental health.

“Across all age groups from 12-17 years, adolescents not meeting minimum sleep guidelines were more likely to show symptoms of anxiety and depression and were less likely to report being happy,” she said.

“Of adolescents aged 16-17 years with symptoms of anxiety or depression, close to 60 per cent did not meet the minimum sleep guidelines. This is considerably more than for those without these symptoms.

“Much greater proportions of adolescents across all age groups who rated themselves as ‘not happy’ compared to ‘happy’ did not meet the minimum sleep guidelines.”
Physical health

Dr Evans-Whipp said that sleep, physical health and caffeine intake were also keenly related.

“The study found that obese 12-13 year-olds were more likely than those in the normal weight range to not meet minimum sleep guidelines. However, this difference was not apparent in the older age groups,” she said.

“Children aged between 12-13 years and 14-15 years, who participated in sport, were more likely to be getting enough sleep, suggesting that physical activity is associated with longer sleep times.

“More 14-15 year-olds who consumed caffeine failed to meet the minimum sleep guidelines on a school night, suggesting caffeine impacted on sleep duration. However, at 16-17 years this difference was no longer evident.”

Internet access

More than 28 per cent of 12-13 year-olds and 27 per cent of 14-15 year-olds with internet access in their bedrooms did not meet sleep guidelines.

“Almost 1 in 5 16-17 year-olds spent 8 or more hours per day on the internet, while two-thirds spent between 2 and 8 hours per day and overall this age group was not getting enough sleep,” Dr Evans-Whipp said.

“It’s not clear whether internet use contributes to reduced sleep or whether adolescents who have difficulty sleeping use the internet to deal with that or have more time to spend online because they are sleeping less.”

Homework time

At all ages, adolescents spending more than 5 hours on homework per week were more likely to not meet minimum sleep guidelines, than those doing 1 to 3 hours a week.

“Homework may displace sleep time, especially when adolescents have busy after school schedules. Nearly all homework activities are completed on a PC, laptop or mobile device and exposure to blue light from screens in the evening may impact sleep duration,” Dr Evans-Whipp said.

Access a copy of the AIFS' Growing Up in Australia Longitudinal Study of Australian Children 2018 Annual Statistical Report Are children and adolescents getting enough sleep?

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