
Negative Effects Of Sleep Deprivation

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We all know that everyone hates waking up early in the morning yet almost every week, most of Australian high school students begin class before eight thirty in the morning. Instead of being energetic and ready to learn, most teenagers can barely remain awake and focus on work. It is a proven statistic that the average teenager does not get enough of sleep, negatively affecting their academic performance, mental health, cognitive abilities and physical health. Not only do lack of sleep contribute to mental fatigue but it is also linked to many serious health problems. In particular, high blood pressure, heart diseases, diabetes, obesity etc.

(<https://academichelp.net/samples/academics/essays/cause-effect/sleep-deprivation.html>)

School Starting Times:

In a particular episode “The penalties of Sleep Deprivation” on the Science show (Sat 26 Sep 2015, 12:19pm), Robyn Williams interviews Paul Kelly on his new discoveries on sleep and whether schools should start later than 10 am or even 11. According to Paul Kelly, the Sleep and Circadian Neuroscience Institute at the University of Oxford, majority of young people were losing 10 hours of sleep per week, making them almost permanently jetlagged. Professor Kelly critiques how “ten hours of sleep loss in a week is dangerous” as it can impact your physical and mental health and also your performance on tasks and work.

William asks a series of questions, including the effect of sleep deprivation on genes, in which Professor Kelly explains that scientists extracted blood samples from sleep deprived students (5.7 hours a night) who were aged around 24 and analysed the genes that were affected in which was 711. But surprisingly, it was discovered that after allowing the students to sleep 8.5 hours “they all disappeared, all of them ...”. This refers to repaying the sleep debt in which you can make up for the loss of sleep by having a “good long sleep” the next day.

Speaking of the biological clock, some schools and institutions have permitted classes to start at 10:30 am. Sleep - Wake Cycle Shift refers to a hormonal shift (melatonin which induces sleep and cortisol which encourages alertness) in the body of an adolescence, forwarding 1-2 hours, making the adolescent sleepier 1-2 hours later at night which causes a delayed sleep-wake phase disorder. Hence authorising schools to start at 10:30 am provides an extra 2 hours of sleep in the morning, allowing students to perform better at school and have high cognitive abilities such as a more attention span, greater memory as well as behaving appropriately. Furthermore, William and Professor Kelly discusses about how everyone has a circadian rhythm which involves changes in bodily functions & biological rhythms that occur as a cycle every 24 hours. This further proves that it's “biologically inbuilt” and society should change school and work starting times.

Who Benefits and Gains?

We've got a sleep deprived society. Most people don't get enough sleep. We are a nation where people stay up all night to study, work, or have fun. However, going without adequate

sleep is hugely damaging on the body's systems because it affects your “physical emotional and performance systems in the body”. Sleep deprivation is an issue that effects nearly everyone; however, very little people are aware of the negative effects it truly has on their body, mind, and overall health. This is why it is important to educate others on the issue and address the concern at hand as well as fix it. In particular, start by changing school starting times. Though everyone suffers from sleep deprivation, it's well known that consequences are much worse in students and it seems to have more of a critical effect on students. This is because their body is still growing, their brain is still developing and can be heavily affected if there is a loss of sleep.

What I find quite interesting from this interview is the fact that our eyes and body biologically respond to the light of day due to the “sensitivity in the nerves” and that we have a biologically inbuilt body clock proving that our body automatically wakes up when it needs to. This further proves you can't adapt to the early starting times of school and hence school should start later at 10 am.

Being a university student hits home for me as of in my past high school years, I have suffered from a lot of sleep deprivation and fatigue even as of now. Spending more than 6 hours at school and then coming home to study even further not only can affect my performance on work but even impact my whole wellbeing. It's not a good feeling, being tired all the time. I've dealt with many years waking up early for school and not being able to focus on anything. Hence by instituting more schools and universities to start later can truly benefit me and many other students to work more efficiently with a clear mind and perform better. This will be a great advantage for society as adolescences and teenagers are able to sleep for 9 hours as required, Schools with later start times will a significant improvement in school performance and there will reduced tardiness, truancy and dropout rates. However, some challenges and concerns that may prevail are that students and their families' schedules have been set up around school schedules. Hence by making a major switch to later start times may pose a challenge for working parents who would have to deal with additional costs of before and after-school care and transportation.