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## Autism spectrum disorder

Autism spectrum disorder (ASD) is a developmental disorder characterized by mild to severe impairments in communication, social interaction, and cognition.<sup>1</sup>

Autistic individuals have increased rates of mental (e.g., anxiety, depression) and physical (e.g., sleep, obesity, physical activity) health concerns.<sup>2,3</sup>

Prevalence of ASD in college students is 0.7% to 1.9%.<sup>4</sup>

Autistic college students face multiple challenges to meet their health needs and the imposing college setting adds complexity when studying this topic.



### Aims

- 1) To examine sleep hygiene and patterns in autistic students at higher educational institutions.
- 2) To increase awareness and promote sleep health among autistic college students.

## Sleep

A dynamic, physiological state that influences numerous aspects of our lives.<sup>5</sup>

It is an interactive process that impacts everyone in the family and individuals living with us, including roommates.



Actiwatch

**TABLE 1. The Epworth sleepiness scale**

**THE EPWORTH SLEEPINESS SCALE**

Name: \_\_\_\_\_  
Today's date: \_\_\_\_\_ Your age (years): \_\_\_\_\_  
Your sex (male = M; female = F): \_\_\_\_\_

How likely are you to doze off or fall asleep in the following situations, in contrast to feeling just tired? This refers to your usual way of life in recent times. Even if you have not done some of these things recently try to work out how they would have affected you. Use the following scale to choose the most appropriate number for each situation:

0 = would never doze  
1 = slight chance of dozing  
2 = moderate chance of dozing  
3 = high chance of dozing

Situation	Chance of dozing
Sitting and reading	_____
Watching TV	_____
Sitting, inactive in a public place (e.g. a theater or a meeting)	_____
As a passenger in a car for an hour without a break	_____
Lying down to rest in the afternoon when circumstances permit	_____
Sitting and talking to someone	_____
Sitting quietly after a lunch without alcohol	_____
In a car, while stopped for a few minutes in the traffic	_____

Thank you for your cooperation

Questionnaires<sup>6</sup>



Polysomnography (PSG)

Sleep research considers different parameters such as sleep efficiency, total sleep time, night wakings, wake after sleep onset, fragmentation index, and time spent in stages.

## Sleep & ASD

Approximately 40% to 80% of autistic children and adolescents exhibit a sleep problem.<sup>7</sup>

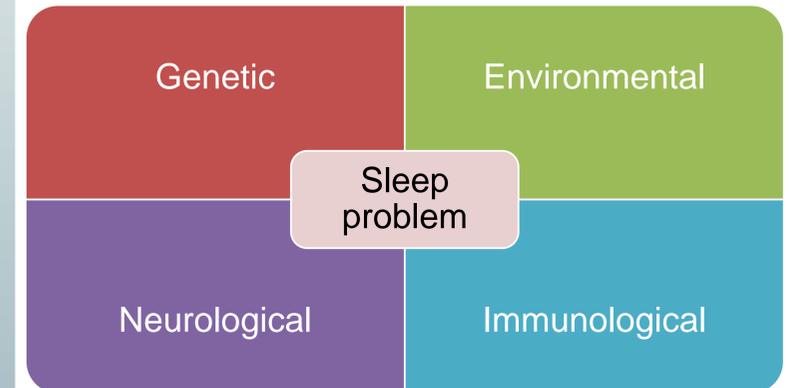


Figure 1: Sleep problems are multifaceted.

Sleep problems impact daily functioning, academic achievement, and social interactions which are shown to relate with stress and sleep disruption among parents and/or caregivers of autistic individuals.<sup>8</sup>

Autistic adults display longer sleep latency, frequent night wakings, poor sleep efficiency, and differences in time spent during the sleep stages compared to typically developing controls.<sup>9</sup>

Autistic college students are significantly less likely to report sleep deprivation than their neurotypical peers.<sup>10</sup>

## Future Directions

Contradictory findings illustrate a need to further evaluate sleep health among autistic college students.

A mixed methods research design should include diverse outcomes measuring physical and mental health as well as academic performance and social interactions.

Effective translation and dissemination of findings is vital to helping students meet their needs.

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