

The Effects of Sleep Deprivation

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Purpose of Study

Sleep deprivation is a condition that occurs when an individual fails to get adequate sleep. It is a common problem today, with many people sacrificing sleep for work, school, or other activities. This poster will explore the causes, symptoms, and consequences of sleep deprivation.

Background

Sleep deprivation occurs when someone doesn't get enough sleep, or the quality of the sleep they are getting isn't good. Sleep deprivation is very common. It affects between 50 million and 70 million adults per year.

Sleep deprivation affects the body in many ways.

- **Heart and circulatory systems:** more likely to develop high blood pressure and high cholesterol.
- **Metabolic systems:** much higher risk of developing Type 2 diabetes.
- **Immune system:** Your body's natural defenses against infections can't work properly if you aren't getting enough sleep.
- **Nervous system:** higher pain sensitivity, which means they feel pain more easily, the pain is more intense or both.
- **Brain:** sleep deprivation could play a role in the development of Alzheimer's disease.
- **Mental health:** negatively affects your mental health, making it harder for you to manage and process your emotions. People with sleep deprivation are more likely to feel symptoms of depression and anxiety.

Treatments

There are several ways to treat sleep deprivation, including:

1. Have a routine
2. Make the time for sleep. ...
3. Limit the time you spend around bright lights or using electronics. ...
4. Avoid drinking alcohol or eating a meal too close to bedtime. ...
5. Physical activity can help. ...
6. Don't rely on sleeping medications.

Risk Factors

There are many factors that can contribute to sleep deprivation. These can include:

1. **Work or school obligations:** Many people sacrifice sleep to meet work or school deadlines or to study for exams.
2. **Lifestyle factors:** Certain lifestyle factors, such as drinking alcohol or caffeine, can interfere with sleep.
3. **Medical conditions:** Medical conditions, such as sleep apnea or restless leg syndrome, can interfere with sleep.
4. **Environmental factors:** Environmental factors, such as noise or light pollution, can make it difficult to fall or stay asleep.

Sleep Recommendations

The average daily amount of sleep needed, by age, is:

- Newborns (up to 3 months old): 14 to 17 hours.
- Infants (4 to 12 months old): 12 to 16 hours, including naptime.
- Young children (1 to 5 years old): 10 to 14 hours, including naptime.
- School-aged children (6 to 12 years old): 9 to 12 hours.
- Teenagers (13 to 18 years old): 8 to 10 hours.
- Adults (18 years and up): 7 to 9 hours.

Disparities

Black and Hispanic men were more likely to report sleeping ≤ 5 hours per night than White men (Black: 32%, Hispanic: 20%, White: 12%).

Lower and middle class men were also more likely to report short sleep duration compared to men of higher SES (lower: 28%, middle: 20%, upper: 8%,.)

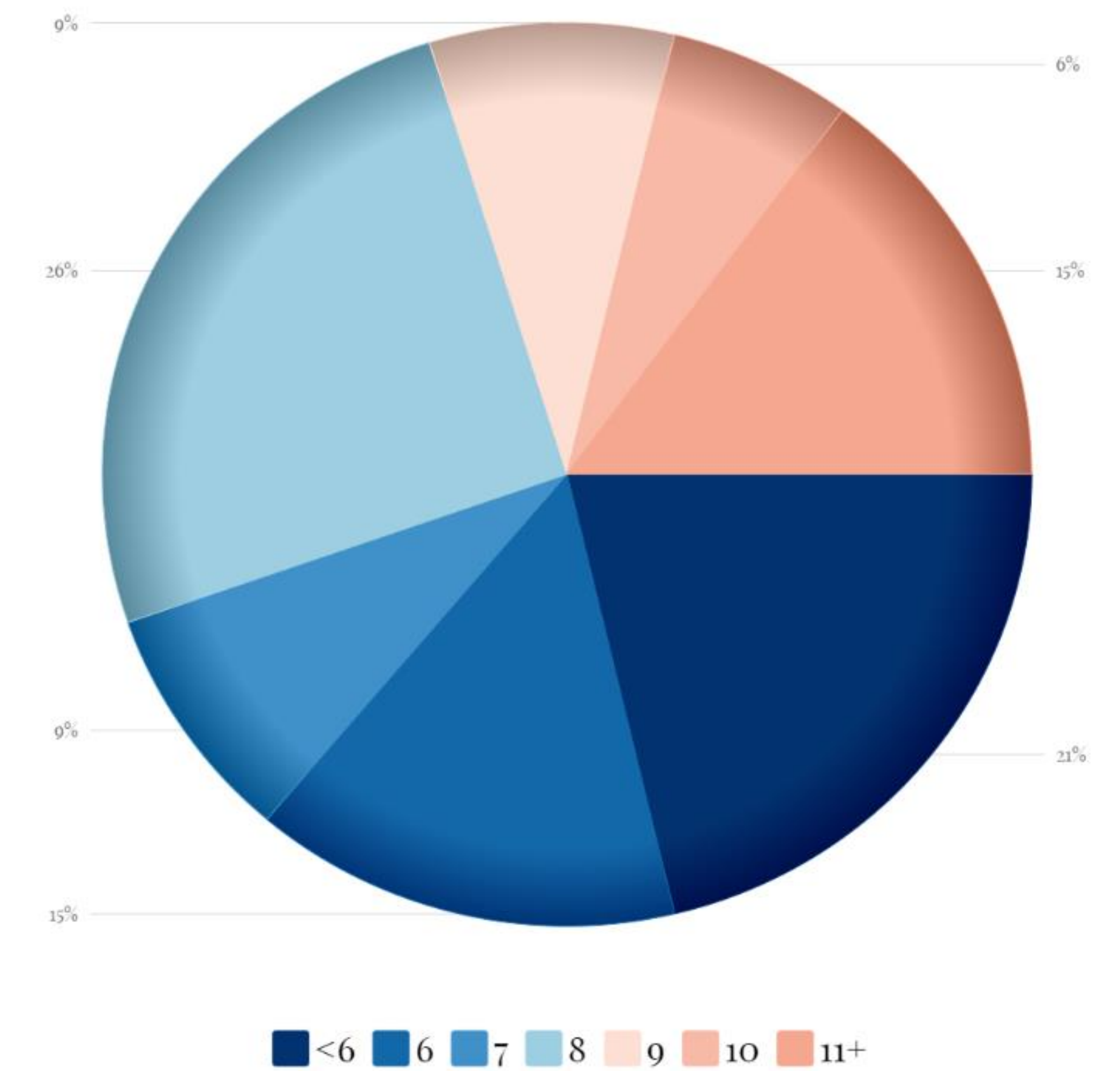
Chatbot Methodology

I used an API (Application Programming Interface) to communicate our program with Chat GPT. I created an API key and copied it into my code. I leveraged Chat GPT's functionality with our Chat Bot to answer any additional questions about my research topic.

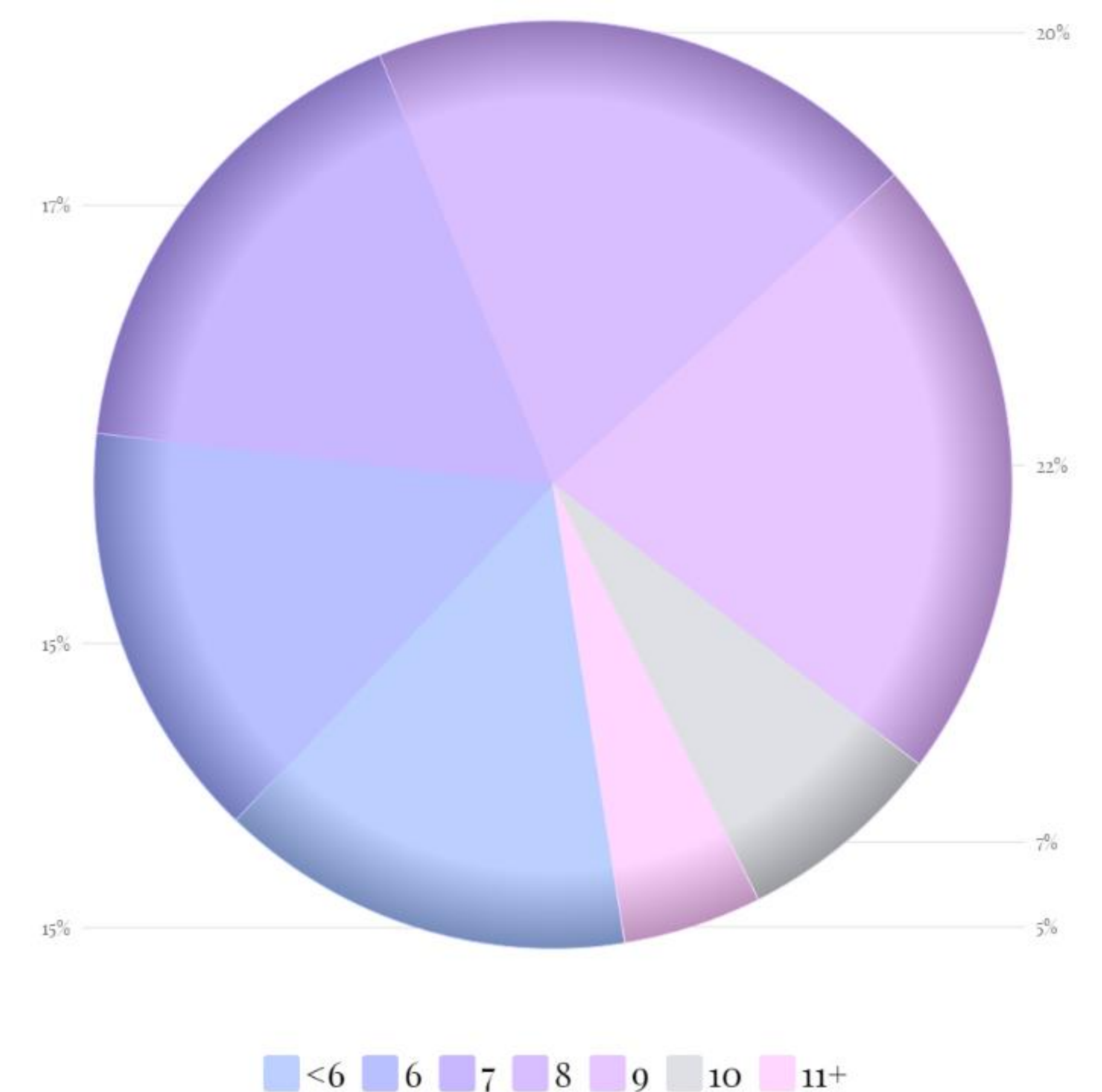
Conclusion

Sleep deprivation is a common problem that can have serious consequences on a person's health and well-being. It is important for individuals to prioritize sleep and seek help if they are experiencing symptoms of sleep deprivation. With the right treatment and support, people can learn to improve their sleep habits and lead healthier, more productive lives.

Hours of sleep on the weekend



Hours of sleep on the weekday



References

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