

# Autism Spectrum Disorder (ASD) and Sleep Quality Amongst College Students



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## Background

- **Autism spectrum disorder (ASD)** is a neurological and developmental disorder that affects a person's sociability, communication, and behavior (NIMH, 2024).
- Comorbidities associated with ASD include **sleep disorders**, gastrointestinal disorders, and mental disorders.
- 60% of college students do not get adequate sleep every week (Hershner & Chervin, 2014).
- Though there has been a focus on the general college student population, there is a *lack of research regarding the relationship between university students with ASD and their sleep trends.*

## Objective

To determine if ASD diagnosis (exposure) is associated with poorer self-reported sleep quality (outcome) in college students.

## Methods

- In January-February 2025, an online cross-sectional anonymous survey was conducted via Qualtrics. (**n=171**)
- Eligibility: College students (18+)
- Recruitment: Digital survey was distributed on social media platforms, messaging applications and student meetings.
- ASD status was collected by questions about previous diagnosis from a medical professional. Self-reported sleep quality was measured using the Brief Version of the Pittsburgh Sleep Quality Index (B-PSQI).
- SPSS and Google Sheets used for data analysis and statistics

## Results

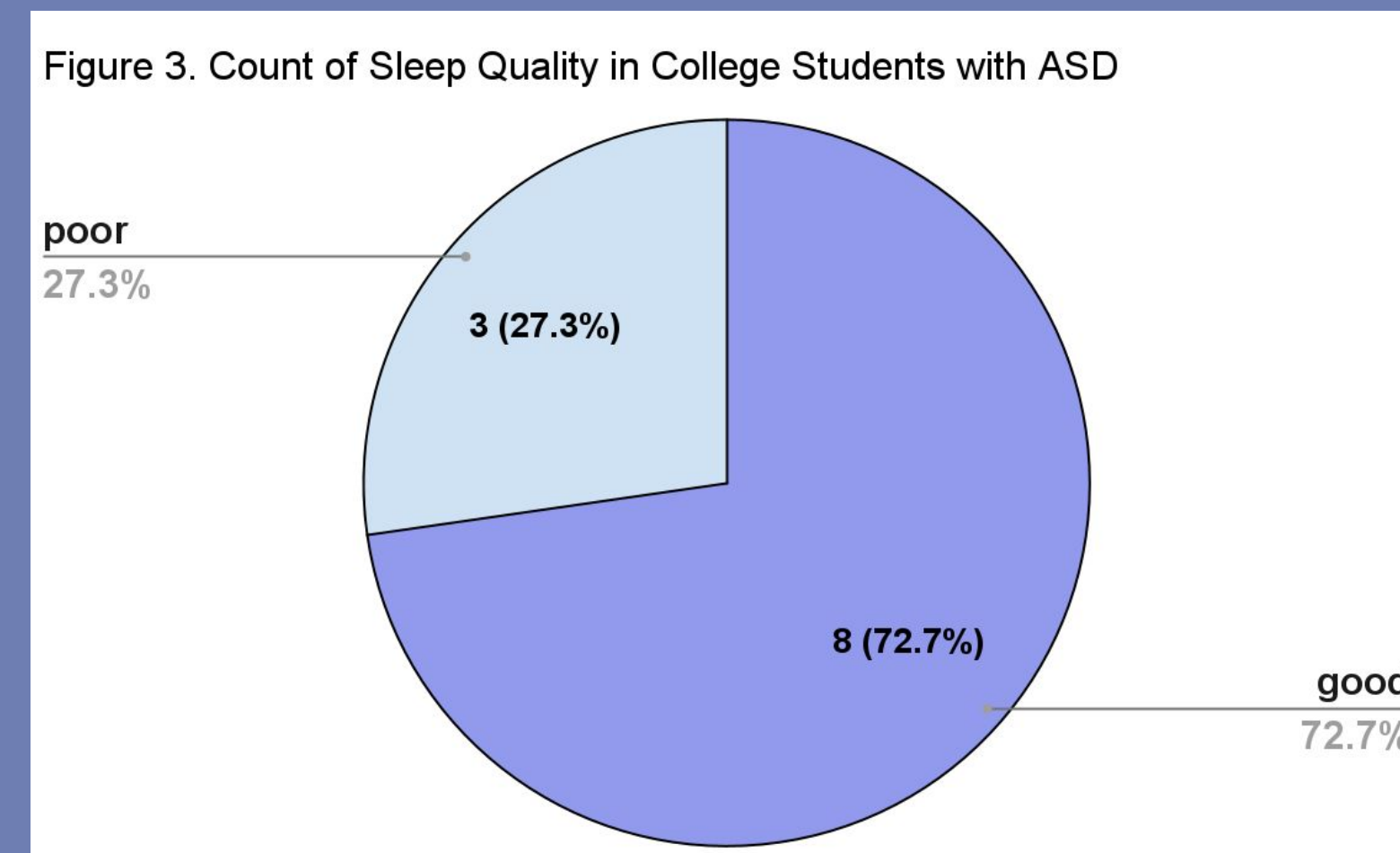
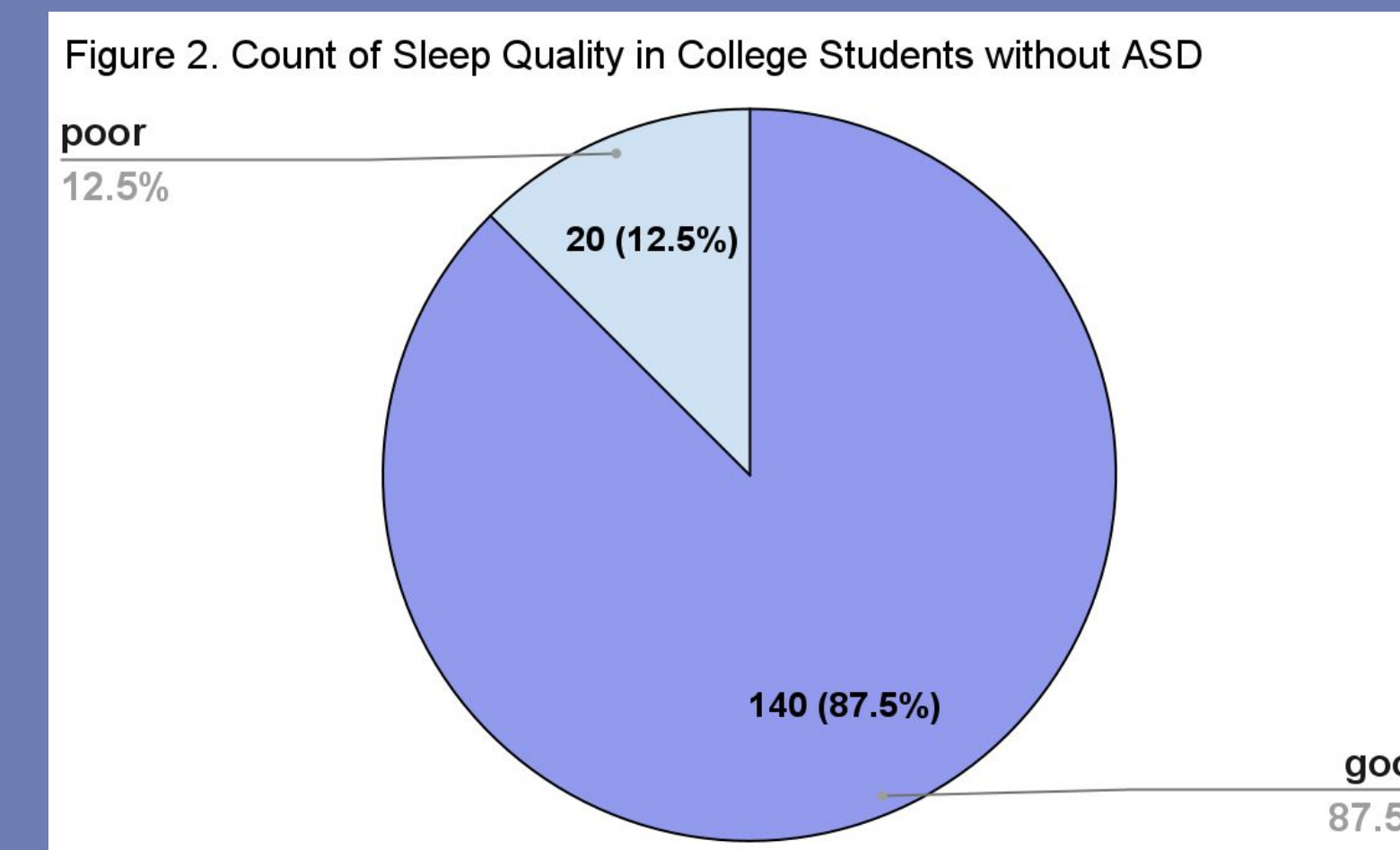
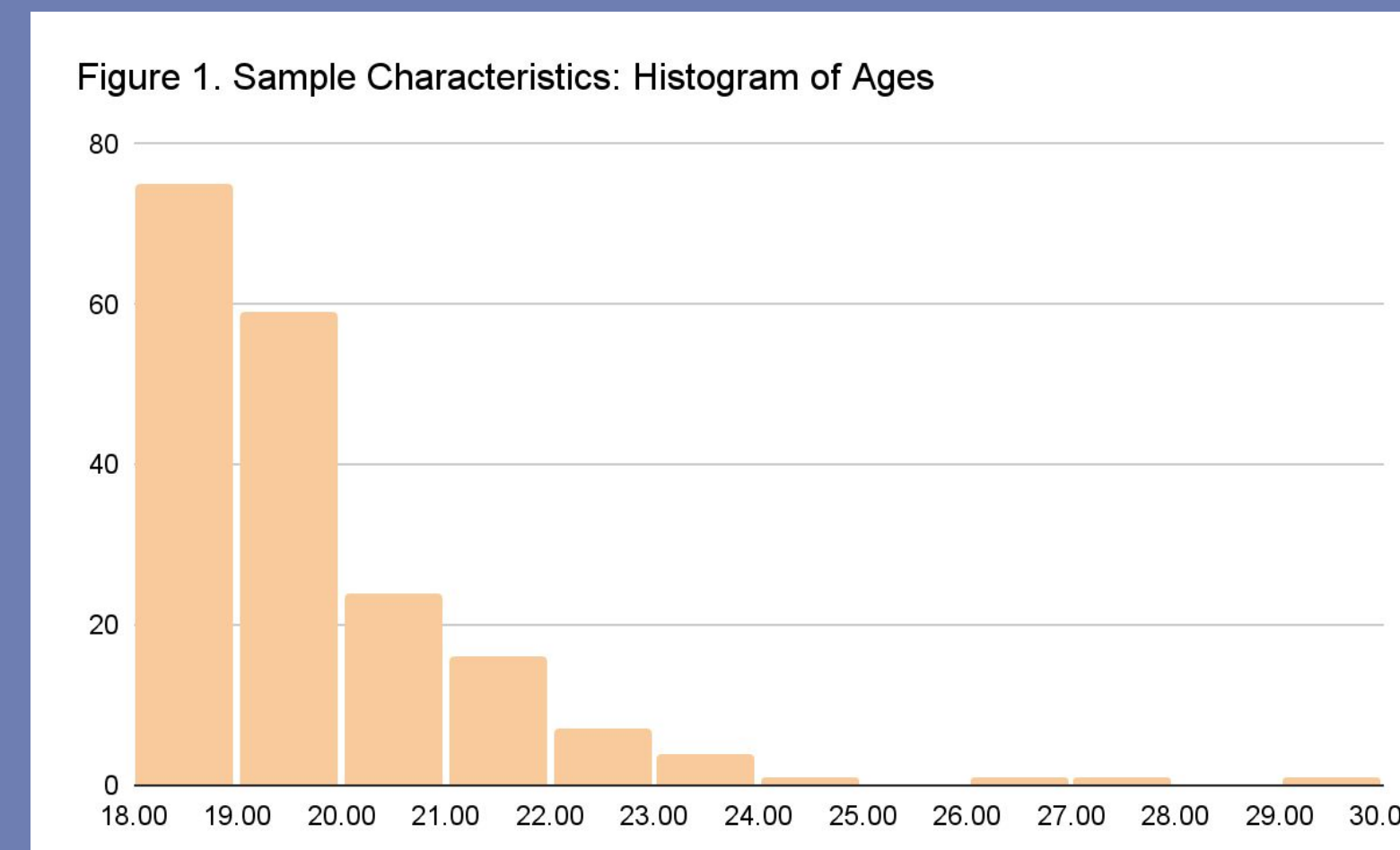


Figure 4. Chi-Square Test Comparing Sleep Quality in College Student with ASD and Without ASD. p-value=0.116

Count		Self-reported Sleep Quality		Total
		good	poor	
Has a medical professional or expert ever told you that you have ASD?	Yes	8	3	11
	No	140	20	160
Total		148	23	171

- At 5% alpha level, p-value=0.116 so we fail to reject the null hypothesis. There is **no** statistical evidence to claim that college students with ASD have poorer sleep quality than their neurotypical counterparts
- Exploratory Results: Further chi-square tests revealed that there is statistical evidence to claim that there is an association with age and self-reported sleep quality (p-value=0.043).

## Limitations

Due to a limited number of survey responses from individuals with ASD, the analysis of students with ASD conducted in this study may not be fully representative of the university population. These limitations highlight the need for further research with a larger, more representative sample of the university population in order to better understand the relationship between sleep and ASD, and the difference in sleep quality between students with ASD and their neurotypical counterparts.

## Conclusion

- Among college students without ASD, 140 participants (87.5%) reporting good quality sleep, while only 20 participants (12.5%) reported poor sleep quality.
- For college students with ASD, 8 out of 11 participants (72.7%) reported good sleep quality, while 3 participants (27.3%) experienced poor sleep quality.
- These findings suggest that while poor sleep is present in both groups, the overall trend indicates that most students, regardless of ASD status, report having good sleep quality.

## Policy Implications

- Creating programs and support systems at university levels aimed specifically at addressing sleep quality in students with ASD can help improve sleep trends and other outcomes within the ASD community.
- Promoting **knowledge and strategies** for better sleep may lead to improved general sleep outcomes for university students.

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## References

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