

DATA ANALYSIS: SOCIAL MEDIA ADDICTION AMONG STUDENTS

Analysis on students' academic performance, mental health, and relationships across demographic groups

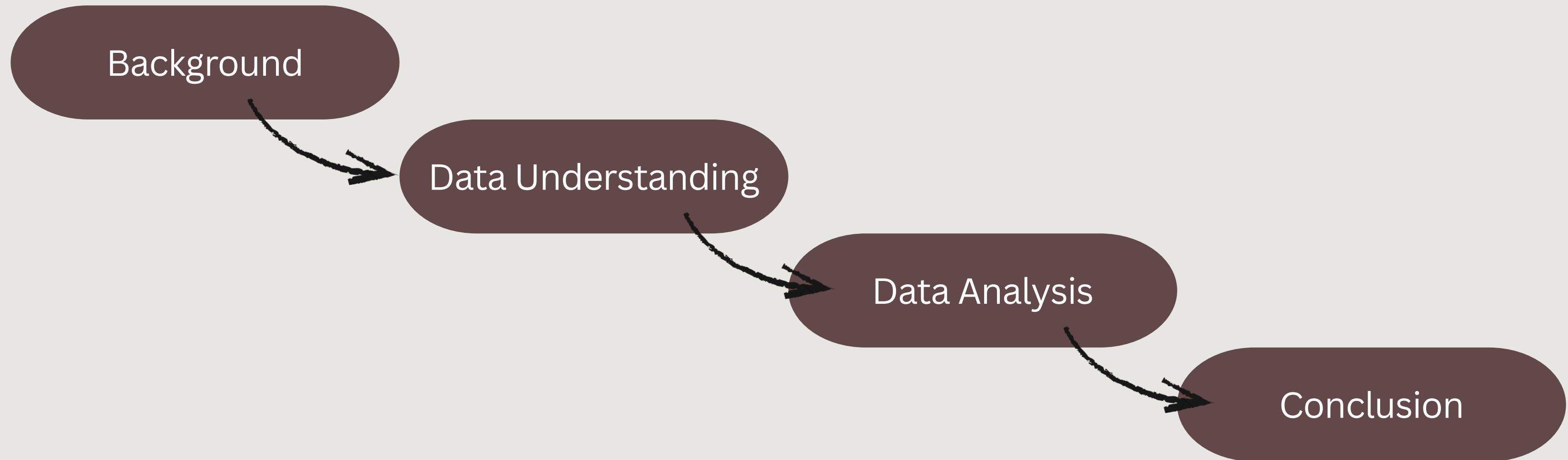
GROUP 1

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BACKGROUND

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Background

Overview

- Social media: integrated into students' daily lives for communication, entertainment, and academic purposes.
- Excessive use → social media addiction
- Social media addiction affects multiple aspects of student life:
 - Academic performance
 - Mental health
 - Interpersonal relationships

Data source: Adil Shamim – **Students' Social Media Addiction** dataset on Kaggle (<https://www.kaggle.com/datasets/adilshamim8/social-media-addiction-vs-relationships>)



Background

Problem Statement

The true impact of social media addiction on students' academic performance, mental health, and relationships is unclear.

Objectives

This study aims to address these gaps by examining:

- Variation of addiction across demographic groups
- The effect of addiction on mental health, sleep, and academic performance
- How addiction influences interpersonal relationships



DATA UNDERSTANDING



Data description | Data features

Data Understanding

Data description

- Population:
 - Students aged 16–25 (Male & Female)
 - Enrolled in high school, undergraduate, or graduate programs
 - Multi-country coverage (e.g., Bangladesh, India, USA, UK, Canada, Australia, Germany, Brazil, Japan, South Korea)
- Social media behavior:
 - Usage hours
 - Platform
 - Addiction score
- Well-being:
 - Sleep hours
 - Mental health score
- Relationship:
 - Relationship status
 - Conflicts over social media
- Timeframe:
 - Data collected via a one-time online survey administered in Q1 2025

Data Understanding

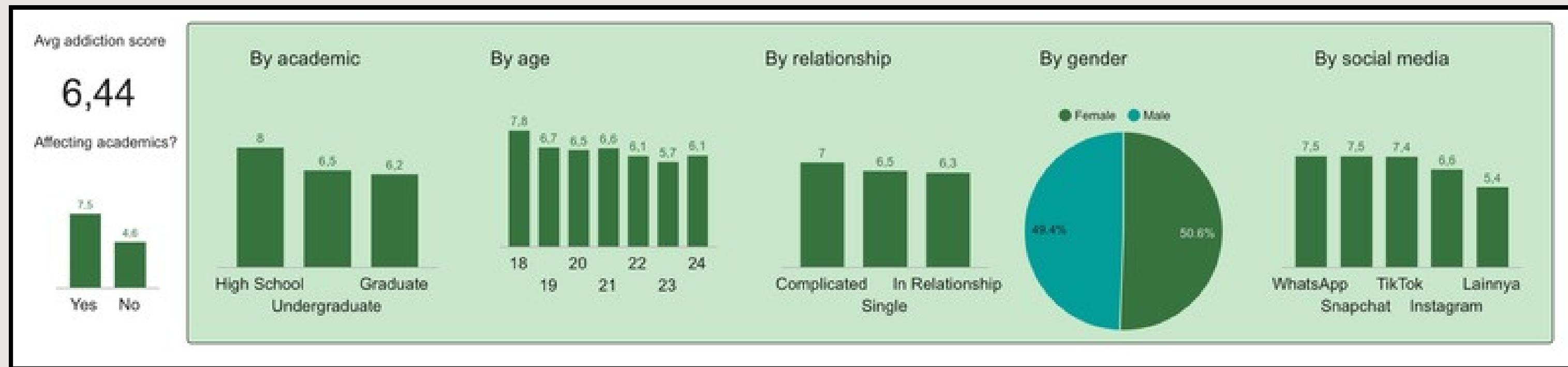
Data Features

| Column | Description |
|------------------------------|--|
| Student_ID | Unique identifier for each student |
| Age | Student age (integer) |
| Gender | Student gender (categorical) |
| Academic_Level | Level of education (categorical) |
| Country | Country of residence |
| Avg_Daily_Usage_Hours | Average daily social media hours (float) |
| Most_Used_Platform | Primary social media (categorical) |
| Affects_Academic_Performance | Perceived academic impact (categorical) |
| Sleep_Hours_Per_Night | Average nightly sleep (float) |
| Mental_Health_Score | Mental health metric (integer) |
| Relationship_Status | Relationship status (categorical) |
| Conflicts_Over_Social_Media | Occurrence of conflicts (integer) |
| Addicted_Score | Composite addiction score (integer) |

DATA ANALYSIS

Addiction Score Demographics

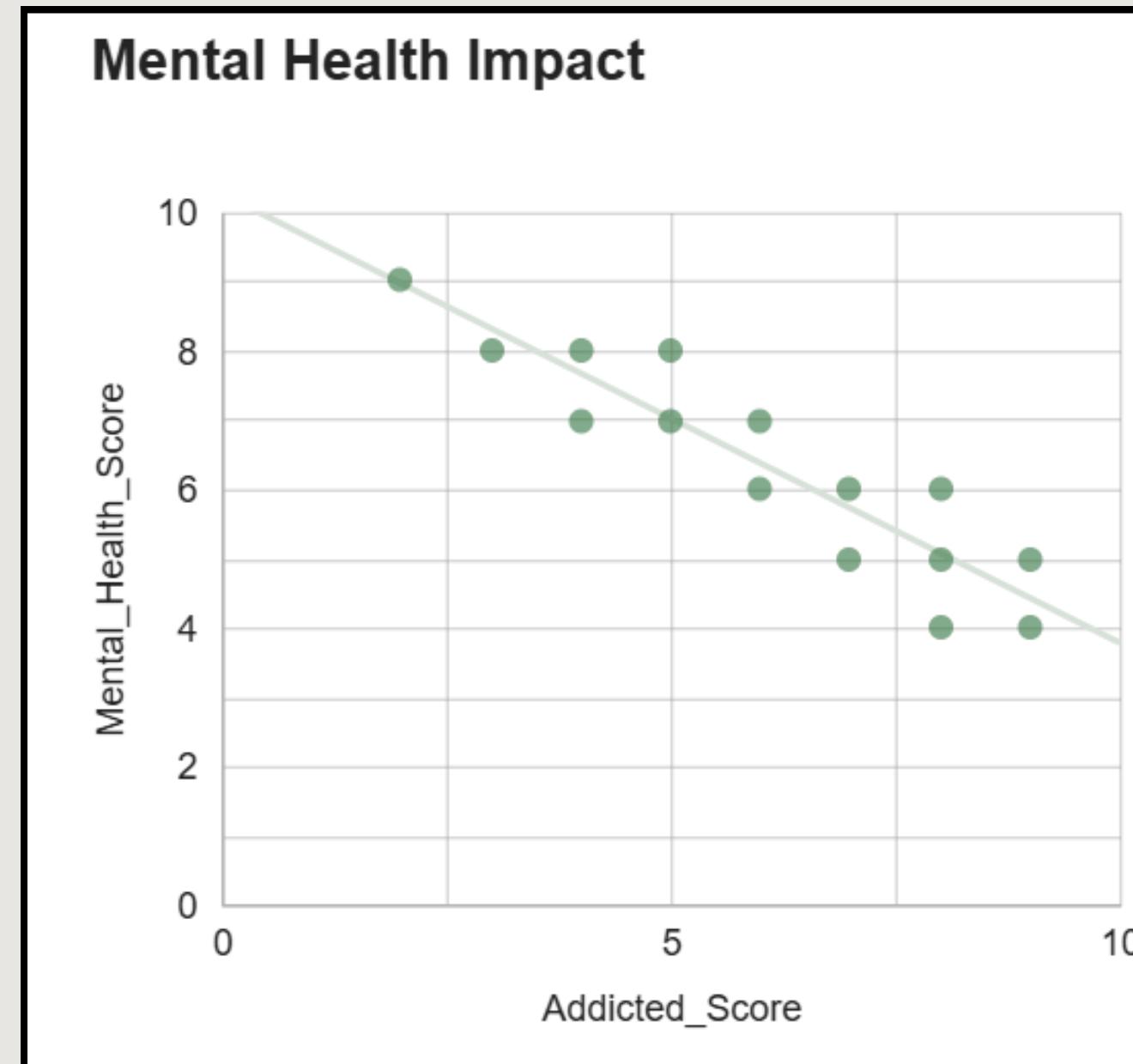
Measure of how much student addicted to social media from 1 to 10 based on surveys



- Average addiction score: 6,44
- Social media addiction affects most students' academics
- Most affected population: high school students aged 18 years old
- Most students in this analysis had complicated relationships
- Gender distribution among the samples are almost equal
- Most used social media: WhatsApp, Snapchat, TikTok

Mental Health Impact

Negative Relationship

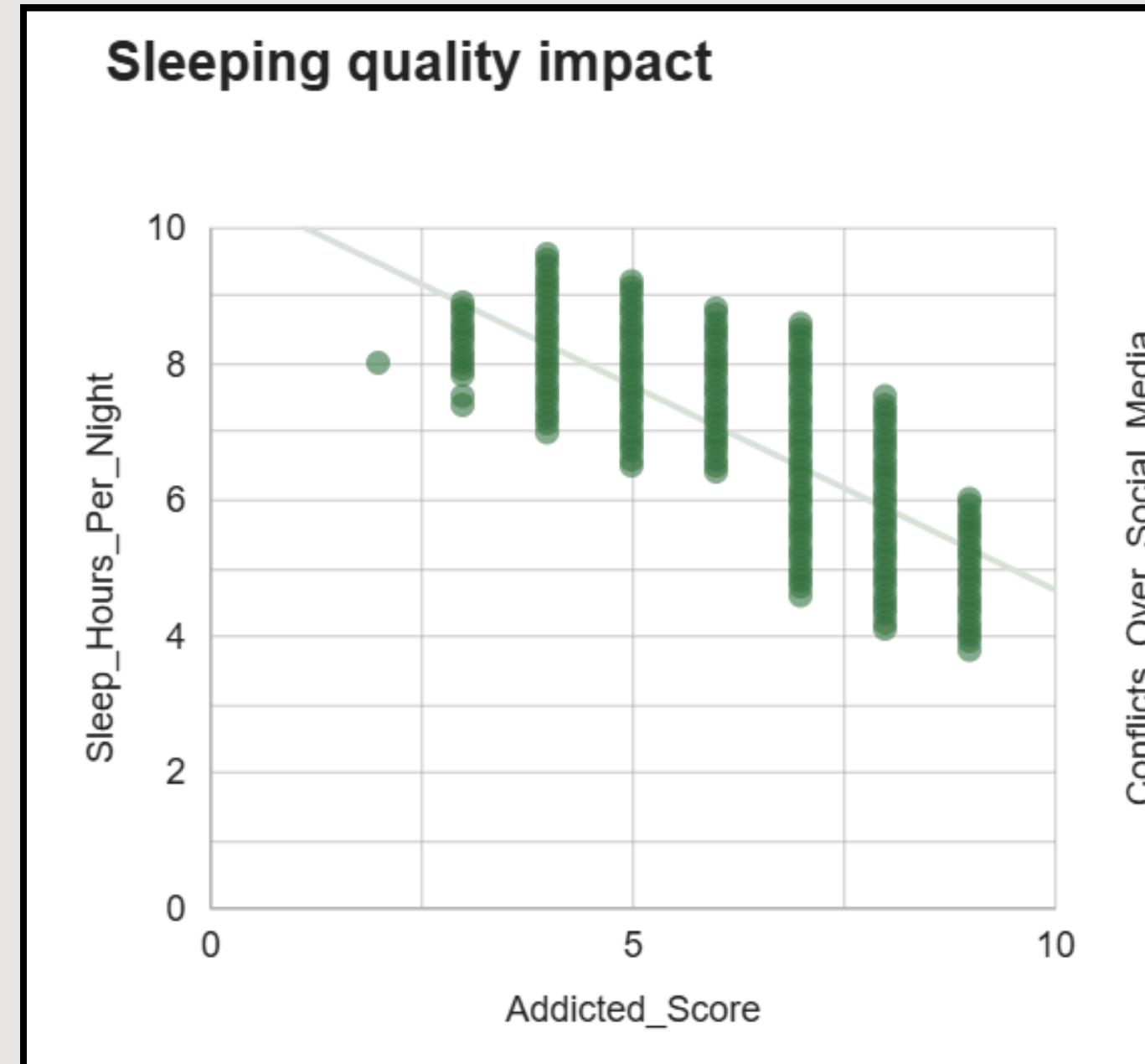


Insights:

- Students with addiction scores <4 generally have mental health scores around 8–9
- Students with addiction scores > 7 have mental health scores around 4–5
- Negative linear relationship:
 - ↑ addiction = ↓ mental health

Sleep Quality Impact

Negative Relationship

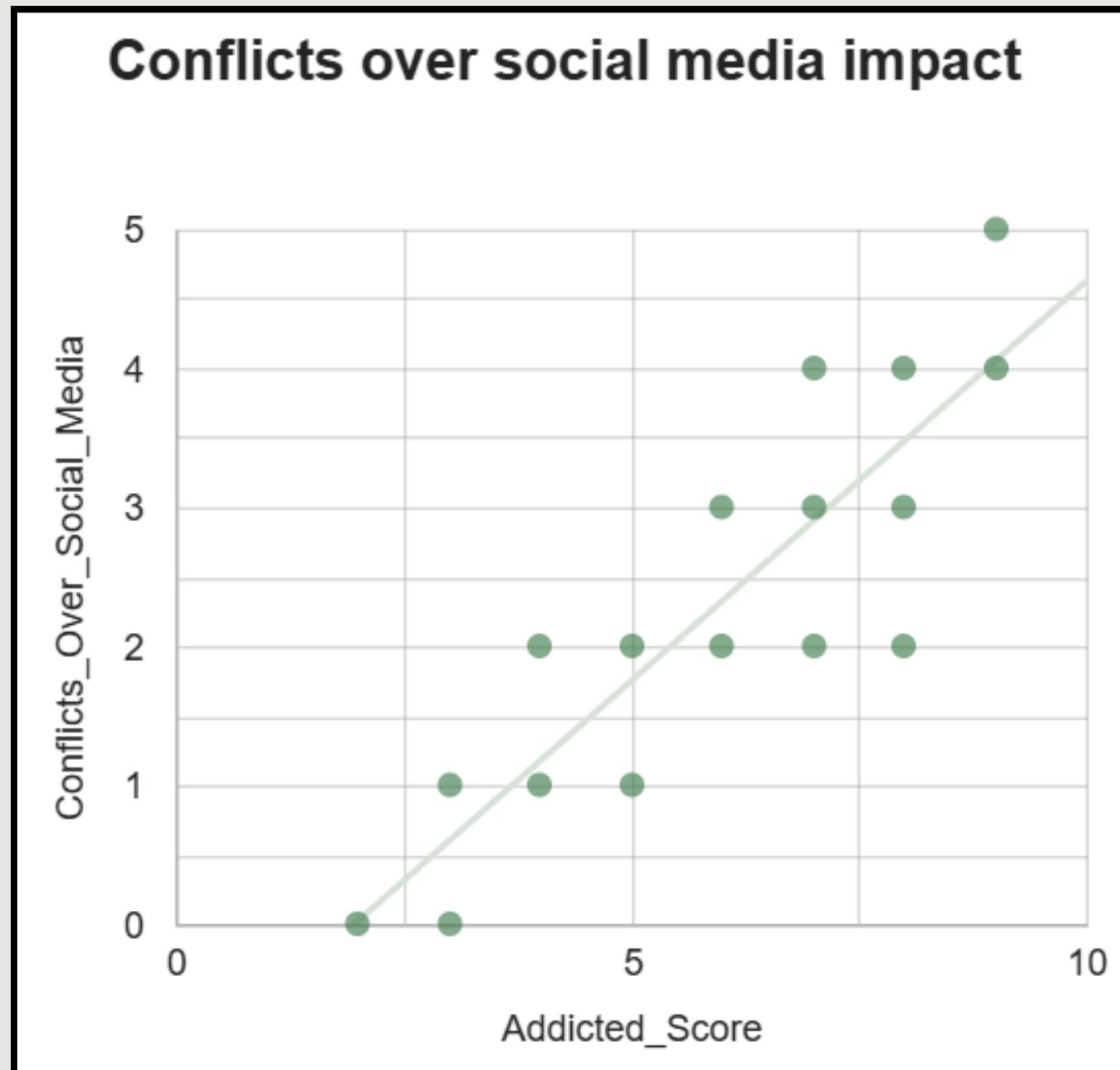


Insights:

- Students with low addiction scores (2–4) generally sleep 7.5–9 hours per night
- Students with high addiction scores (7–10) sleep significantly less (4–6 hours)
- Negative linear relationship:
 - ↑ social media addiction = ↓ sleep duration

Conflicts over Social Media Impact

Positive Relationship



Insights:

- Students with addiction scores below 4 report 0–1 conflicts
- Students with scores above 7 report 3–5 conflicts
- Positive linear relationship:
 - ↑ addiction = ↑ conflicts

Conclusion

To conclude...

Social media addiction:

- has a negative impact on students' sleep quality and mental health
- leads to more interpersonal conflicts
- is a risk factor influencing many dimensions of student well-being



THANK YOU

For Listening

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