Students Social Media Addiction Analysis

This interactive Power BI dashboard analyzes the social media addiction patterns of 705 students, focusing on their demographics, academic level, relationship status, platform usage, and the associated impact on mental health, sleep quality, and academic performance. It combines slicers, KPIs, charts, and relationship-based visualizations to provide a holistic view of social media behavior and its consequences.

Dataset Link: Students Social Media Addiction

Overall Metrics & Key Indicators

Total Students: 705

• Average Daily Usage Hours: 4.92 hours per student

Average Mental Health Score: 6.23/10

Average Sleep Hours: 6.87 hours/night

• Average Addiction Score: 6.44/10

These indicators suggest **moderate to high levels of social media usage**, which shows a noticeable relationship with mental health, sleep habits, and academic performance.

Demographic Insights

• Gender-based Patterns:

- Female students report higher daily usage (6.43 hrs) than males (6.00 hrs).
- Usage decreases progressively with lower academic levels in males but remains high among females across all academic levels.

Academic Level Comparison:

- High School students are the most addicted with an average addiction score of 8.04, followed by undergraduates (6.49) and graduates (6.24).
- This indicates that younger students are more vulnerable to overusing social media platforms.

• Country Filter:

 The country slicer allows drilling down into regional differences, enabling a deeper understanding of whether cultural or geographical contexts influence social media habits.

Platform Usage Trends

Most Used Platforms:

- Instagram (249 users) and TikTok (154 users) dominate student social media time.
- Facebook (123 users) and WhatsApp (54 users) remain moderately popular.
- Niche platforms like LinkedIn, LINE, KakaoTalk, and Vkontakte have minimal usage.
- This indicates a preference for visually engaging and short-form content platforms among students.

• Impact of Platform Choice:

 Platforms like TikTok and Instagram, known for addictive scrolling, could be contributing higher usage hours and addiction levels.

Mental Health, Sleep & Addiction Correlation

- Mental Health vs. Usage:
 - A clear negative correlation exists:
 - Students with mental health scores closer to 10 average 1.5 daily usage hours.
 - Students with lower mental health scores (~3) average 6+ hours daily usage.
 - This suggests that **higher social media usage may worsen mental health** or vice versa.

• Usage Hours vs. Sleep Duration:

- A **decline in sleep hours** is observed as daily social media usage increases.
- Students with 2-3 hours usage sleep ~7+ hours, while those using >6 hours sleep ~5 hours or less.

• Addiction Level vs. Academic Impact:

 High addiction levels show the greatest negative impact on academic performance, with a higher count of students reporting academic struggles in the moderate-to-high addiction range.

Academic Performance & Addiction Levels

- Students with **low addiction levels** are less likely to report academic difficulties.
- Moderate addiction level students (489 students) showed a balanced split between affected and unaffected academic performance.
- Students in the **high addiction category (199 students)** mostly reported **negative academic impacts** such as lower grades, procrastination, and reduced study time.

Relationship Status & Social Media Conflicts

- Relationship Status Distribution:
 - o **In a Relationship:** 384 students (54.47%)
 - o **Single:** 289 students (40.99%)
 - o **Complicated:** 32 students (4.54%)
- Social Media Conflicts:
 - Conflicts were highest among students in complicated (3.03/5)
 compared to relationship (2.76/5) or single (2.90/5) statuses.
 - This suggests relationship-related pressures and social media exposure may lead to more interpersonal conflicts.

Dashboard Strengths & Features

- Interactive Slicers:
 - o Gender, Academic Level, Country, and Most Used Platform slicers allow focused insights for targeted analysis.
- KPIs & Cards:

 Highlighting total students, daily usage, mental health, sleep hours, and addiction score makes it easier to grasp key findings at a glance.

Visual Variety:

- o **Bar Charts:** Platform usage, addiction scores by academic level.
- Line Charts: Mental health score vs. daily usage trends.
- o **Bubble Chart:** Usage vs. sleep hours with addiction score context.
- o **Pie/Donut Charts:** Relationship status distribution & social conflicts.
- Stacked Bars: Academic performance impact segmented by addiction levels.

This variety of visualizations ensures clarity, interactivity, and better storytelling.

Key Takeaways & Insights for Action

- 1. **High School students are the most at risk** of social media addiction, requiring early intervention and awareness programs.
- 2. **Instagram and TikTok dominate student engagement**, suggesting that content from these platforms strongly drives addiction.
- 3. **Higher usage correlates with worse mental health & reduced sleep**, hinting at potential long-term health concerns.
- 4. **Relationship dynamics influence conflicts**, indicating that personal and social factors also play a role in addiction patterns.
- 5. **Academic performance is negatively impacted** in moderate-to-high addiction levels, suggesting a **need for balance and digital well-being strategies**.

Conclusion

This dashboard not only visualizes **students' social media usage patterns** but also provides **critical insights into its cascading effects on mental health, sleep quality, academic performance, and interpersonal relationships.** It serves as a valuable tool for **educators, parents, and policy-makers** to understand and address the growing challenge of **digital addiction among students**.