**Student Mental Health & Behavior Report – Executive Summary**

This report presents a comprehensive exploration of student mental health, academic performance, and behavioral patterns based on key lifestyle variables such as study habits, social media usage, and coping strategies.

Through a series of visual analyses, we investigate how students experience and respond to mental stress, how it relates to academic outcomes, and which coping mechanisms appear to be more or less effective. Particular attention is given to the influence of external factors such as gender identity and counseling participation, allowing for a nuanced understanding of diverse student experiences.

Key visualizations include:

* A distribution of self-reported stress levels across the population
* Comparative trends in GPA and stress by weekly study hours
* The impact of daily social media use on both financial stress and academic achievement
* An evaluation of average stress levels based on preferred coping strategies

Together, these insights serve as a foundation for identifying patterns of vulnerability and resilience within the student body, offering evidence-based direction for future interventions and support initiatives.

SLIDE 1: **Distribution of Students by Mental Stress Level**

The chart illustrates the distribution of students according to their self-reported mental stress levels, measured on a scale from 1 to 10. A higher concentration is observed at the lower end of the scale, with a notable peak at level 2, suggesting that a significant portion of students experience relatively low levels of stress.

The total cumulative mental stress score across the sample is **4,076**. A gender-based filter is available, allowing for disaggregated analysis to identify potential differences among gender groups. This visualization serves as an initial overview of mental stress prevalence within the student population and provides a foundation for deeper analysis into contributing factors and related variables.

SLIDE 2: **Relationship Between Academic Performance and Mental Stress by Study Hours**

The line chart compares the average academic performance (GPA) and average mental stress level of students based on the number of study hours per week. The data highlights noticeable fluctuations in both variables across the study hour spectrum, without a consistent linear relationship.

While certain peaks suggest that increased study time may coincide with higher stress levels and varying academic outcomes, the overall trend reveals significant individual variability. This suggests that the impact of study hours on both academic performance and stress may be influenced by additional factors such as study quality, personal coping mechanisms, and external support.

This visualization serves as an exploratory analysis to assess how workload correlates with well-being and academic success within the student population.

SLIDE 3: **Impact of Social Media Usage on Financial Stress and Academic Performance**

This slide presents two visualizations that explore the relationship between social media usage and two key outcomes: financial stress and academic performance (GPA).

The first chart (line graph) illustrates the average level of **financial stress** reported by students based on their daily hours of social media use. The trend indicates variability, with financial stress peaking at around 6 hours of usage per day, suggesting a possible association between extended social media engagement and increased financial concerns.

The second chart (bar graph) displays the average **GPA** by social media usage. Although GPA levels remain relatively stable, a slight fluctuation is observed across different usage levels, with minor dips and rises that may warrant further investigation.

A gender-based filter is included to enable more granular analysis of how these relationships may differ across gender identities. Together, these visualizations support exploratory analysis into the broader implications of digital behavior on student well-being and academic outcomes.

SLIDE 4: **Average Mental Stress by Coping Mechanism**

The bar chart presents the average mental stress levels associated with various coping mechanisms adopted by students. The data reveals significant differences in perceived stress based on the strategy used to manage it.

Notably, students who engage in **exercise** and **talking to friends** report the highest average stress levels, suggesting these methods may be more frequently chosen by individuals already experiencing elevated stress. Conversely, mechanisms such as **meditation** and **watching sports** are linked to lower average stress, indicating potential effectiveness in stress reduction.

Interactive filters allow for analysis by **gender** and **counseling attendance**, enabling deeper insights into how different demographic groups respond to specific coping strategies. This visualization supports the identification of potentially more adaptive or effective stress management approaches within the student population.

**Conclusion**

The findings presented throughout this analysis highlight the multifaceted nature of student well-being, where academic performance, psychological stress, and behavioral patterns are intricately linked. While certain factors such as extended study hours or increased social media usage may correlate with higher stress levels, the data also suggest that these relationships are not universally linear and can vary significantly depending on personal coping mechanisms and available support systems.

Importantly, the variation in stress levels observed across different coping strategies reveals an opportunity for targeted support. Strategies such as meditation and recreational activities are associated with lower stress and may be promoted more actively within student communities. On the other hand, the frequent use of strategies like exercise or peer interaction by highly stressed individuals indicates that these may be reactive, rather than preventive, measures.

Overall, this report underscores the importance of addressing mental health from a holistic perspective—one that considers academic pressure, digital behavior, socio-emotional support, and personal resilience. These insights can serve as a valuable resource for educational institutions, mental health practitioners, and policy makers aiming to design more effective, inclusive, and proactive student support programs.