The Effects of Social Media Use on Sleep Quality and Mental Health

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Background

- Social media has proliferated at a tremendous rate in the past decade. In 2018, 73% of U.S adults reported using Youtube, 68% use Facebook, and 35% use Instagram. Considering its rapid expansion, it’s important to understand its health impacts.
- In 2014, 35% of all adults in the United States reported short sleep duration (<7 hrs/night) according to the CDC. Sleep loss is associated with obesity, anxiety, alcohol use, and impaired cognitive functioning.
- Studies revealed that those who use social media excessively experience poorer sleep, self-esteem, and mental health.

Objective: To examine the association between social media use, mental health, and sleep quality among students attending the University of California, San Diego.

Hypothesis: Higher social media use is associated with poorer sleep quality and perceived mental health.

Methods

- We distributed web-based questionnaires to UCSD students via email and social media sites during a two week-time span.
- The questionnaire assessed the participant’s frequency and investment in social media, sleep quality using the Pittsburgh Sleep Quality Index, and perceived mental health.
- Our primary outcomes of interest include sleep quality and perceived mental health status in relation to social media use.

Statistical Analysis

- We performed descriptive data analysis using excel and Spearman’s rho and chi square test using SPSS 25 to find out the correlations between our variables of interest.

Results

Study Sample

- Our final study sample comprised of 43 students enrolled in the 2017-18 school yr.

Table 1: Participant’s Social Media Use

<table>
<thead>
<tr>
<th>Social Media Use Per Day</th>
<th>%</th>
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<tbody>
<tr>
<td>Less than 30 min/night</td>
<td>34.1%</td>
</tr>
<tr>
<td>30 to less than 60 min/night</td>
<td>40.9%</td>
</tr>
<tr>
<td>60 min to least than 90 min/night</td>
<td>15.9%</td>
</tr>
<tr>
<td>90 min to less than 120 min/night</td>
<td>6.8%</td>
</tr>
<tr>
<td>&gt;120 min</td>
<td>8.8%</td>
</tr>
</tbody>
</table>

Table 1: Participant’s Social Media Use

- Study Sample
- Our final study sample comprised of 43 students enrolled in the 2017-18 school yr.

Table 2: Bivariate Correlation Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Correlation Coefficient</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleep duration</td>
<td>-0.89</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Social media use</td>
<td>-0.64</td>
<td>&lt;.01</td>
</tr>
</tbody>
</table>

Table 2: Social Media Use and Sleep Frequency

- Moderate negative correlation for frequency of social media use and sleep duration. Students who spend more time on social media obtain fewer hours of sleep.
- Sig two-tailed p-value was .078, which indicates an statistically insignificant association. We cannot reject the null hypothesis.

Chi-square test also, confirmed this finding (χ² = 24.33, p<.05)

Social Media and Perceived Mental Health

- The Spearman correlation analysis confirmed that there was no association between the amount of time spent on social media and their perception that social media increases risk of depression and anxiety.

Discussion & Future Directions

- Main findings:
  - The moderately negative correlation between social media use and frequency of sleep reflected our hypothesis.
  - The association was strongly influenced by three participants that answered on the extreme ends of the hours of sleep obtained

Future directions:

Future studies with larger sample size and objective measures to assess social media usage mental health, and sleep behavior to guide interventions that promote healthy social media practices.

Limitations

- Due to ethical limitations, mental health questions were opinion-based and therefore, reduces validity.
- Subjective responses can lead to bias in our results
- Small sample size, lack of objective measures

References