Introduction

Previous studies of medical students in the United States have shown that they get less than the recommended nine hours, with a significant portion getting less than seven hours (Ahmed, N., Sadat, M., & Cukor, D. (2017).

There is no available research comparing Croatian and American medical students’ sleeping habits.

Study Aims

This study explored quantity of sleep and associated lifestyle choices for medical students.

Methods

Study participant recruitment occurred via an emailed letter to student organization leadership as well as posts on Facebook to the targeted medical student groups.

Students were invited to complete a 71-question survey that was conducted via Qualtrics.

Second year medical students in the United States at the Medical College of Wisconsin (MCW) received the survey via email.

Basic statistical analysis was conducted.

Institutional Review Board (IRB) approval was sought at each of the participating medical schools.

Results

Do you think that you are chronically tired or sleepy?

- 41% Yes
- 59% No

Do you feel the amount of sleep you get influences your academic performance?

- 82% Yes
- 18% No

SLEEP QUALITY

<table>
<thead>
<tr>
<th></th>
<th>School days</th>
<th>Non-School days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refreshed</td>
<td>43</td>
<td>14</td>
</tr>
<tr>
<td>Groggy</td>
<td>20</td>
<td>44</td>
</tr>
<tr>
<td>Very Groggy</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

Number of Students

Pharmacological Associations with Sleep

<table>
<thead>
<tr>
<th></th>
<th>Percentage of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleeping Aids</td>
<td>0.5%</td>
</tr>
<tr>
<td>Other Stimulants</td>
<td>10%</td>
</tr>
<tr>
<td>Coffee</td>
<td>80%</td>
</tr>
</tbody>
</table>

Discussion/Conclusion

The preliminary results indicate that the sleep quality of students in medical school is affected by many external factors, including caffeine intake, artificial stimulants, and sleeping aids. The amount of sleep influences the academic performance of students.

Sleep aids played a role in the lives of participants:
- 77% drink coffee on average two cups a day, six times a weeks
- 20% use other artificial stimulants: Methylphenidate, Modafinil, Adderall, Vyanse, Vitamin B supplements
- 2% use sleeping aids: Benadryl, Melatonin, Ambien, Herbal GABA supplements weekly

Sleep quality influences the academic performance of participants:
- On average, students sleep 7 hours on school days and 8 hours on non school days
- 82% feel that the amount of sleep they get influences their performance
- 59% feel that they are chronically tired or sleepy

Future Directions

Next steps include increasing the survey sample size to include medical students in Croatia and Penn State Medical School. Further data analysis will explore the factors responsible for differences when data is analyzed by demographic information.

Acknowledgments

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