
“Switch Off” before You Doze Off: Exploring the Effects of Late Night Media Use on the Sleep Habits of College Freshmen at UCF

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Produced in Scott Launier’s Spring 2012 ENC1102

Since starting college at UCF, my sleep habits have been altered significantly. Most nights I find myself staying up late into the night, which leaves me feeling tired and run down in the morning. Waking up for my early classes has become almost impossible. I am always pondering possible reasons for my drastic change in sleep and wondering what I can do to sleep better at night so that my grades do not suffer from my lack of rest, so when my ENC1102 instructor introduced our research paper assignment, the topic of sleep was the first idea to pop in my mind. I juggled different research questions within the topic of sleep such as: “what causes changes in sleep habits through the transition from high school to college?” “What are the causes of sleep apnea in college students?” “What can be done to increase sleep quality in college students?” And many more! The questions that I started off contemplating seemed to be too broad. In order to narrow down my topic, my instructor suggested that I aim to write a chapter in a book instead of the entire book! Through secondary research I stumbled upon the conversation being held concerning the effect of late night media use on the sleep cycle of children. Using key word searches such as “media” and “sleep,” as well as “technology” and “sleep,” I found a lot of interesting scholarly articles exploring the topic of media and sleep habits. A majority of the sources I found discussed sleep cycles in children, which left me with the question, what are the effects of late night media use on people my age (i.e. college freshmen)? This particular question would be considered a chapter in a book, in other words, a narrower question pertaining to my topic of interest. I am constantly on my cell phone, using the computer, and watching television late into the night. I never considered my late night media use as a potential danger to my sleep quality until I conducted secondary research for the topic.

The first article I encountered, “Influence of Social Factors on the Sleep-Wake Cycle in Children” by Aline Silva Belisio, Fernando Mazzilli Louzada, and Carolina Virginia Macedo de Azevedo, sparked my interest in social media as a factor in sleep patterns. The authors establish that in children, the sleep-wake cycle (SWC) is influenced by both social and biological factors (82). Media use at bedtime is one of the main social factors discussed in the article. Some parents allow their children to use television in nighttime ritual to help them fall asleep but conversation about

the negative effects of television at bedtime arises: “Using television as a transitional object not only delays the beginning of sleep, but also leads to irregular sleep times, shorter sleep duration, bedtime resistance, sleep disturbances and daytime sleepiness,” the authors state (84). When incorporated in bedtime ritual at a young age, children may become dependent on the use of television to help them fall asleep but in reality, it hinders the sleep cycle. This article turned out to be a great starting place for my research in which it sparked my interest in exploring the effects of late night media use on sleeping habits in children.

The next article I found, “Nodding off or switching off? The Use of Popular Media as Sleep Aid in Secondary-School Children” by Steven Eggermont and Jan Van Den Bulck continued to support the claims made by the previous authors and contributed a scholarly study to add to the conversation. The authors of this article conducted a questionnaire about using media as a sleep aid, media presence in bedrooms, time in bed and time out of bed on average weekdays and average weekends, and questions regarding the level of tiredness in the morning, at school, after a day at school and after the weekend was completed by seventh and tenth graders in a sample of 15 random schools (428). Watching television, playing computer games, and listening to music were related to later bedtimes (429). Use of television, computer games, and listening to music as sleep

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aids resulted in relation to sleeping less on the weekdays and weekends (429). The results from the study suggest that television and other media are not fulfilling the purpose they are being used for. This implies that using media as a sleep aid actually has negative effects on the sleep quality and quantity in adolescents.

A similar study to that conducted by Eggermont and Van Den Bulck added to the suggestion that late night media use directly correlates with later sleep times and other sleep behaviors. The article, “Sleep Patterns, Electronic Media Exposure, and daytime Sleep Related Behaviors among Israeli Adolescents,” by Tamar Shochat, Ofra Flint-Bletler, and Oma Tzischinsky, included a survey based on 8th and 9th grade students, which examined weekday and weekend sleep patterns and their relationship with electronic media (computer/television) exposure and sleepiness/tiredness. Results showed that electronic media in the bedroom was associated with increased exposure, later bedtime, increased sleep latency, and decreased sleep duration (1398). This study involved a different type of primary research than previous articles but further supported the idea that use of media at bedtime has negative effects on sleep quality of adolescents.

An intriguing popular article I found published in *USA Today Magazine*, in July 2011, by Dolores T. Puterbaugh, offered the new idea that sleep loss is a wide spread problem that is affecting many Americans today. Puterbaugh states that, according to the National Sleep Foundation report, a majority of adults use a computer or television within an hour before bedtime (60). She continues to describe how television, movie screens, and computers all emit a type of light that is very similar to sunlight at noon (61). These types of media may help distract you from concerns of the day, but they send your brain messages to be alert because it is bright, like daytime. Puterbaugh suggests avoiding electronic devices for an hour or more before bed to her readers, which sparked my primary research idea.

The next article I found, “The Relationship Between Media Use in The Bedroom, Sleep Habits, and Symptoms of Insomnia,” by Burnborg, et al. included a similar questionnaire to that conducted by Eggermont and Ven Den Bulck that investigated the use of media in the bedroom and its relationship with sleeping habits and symptoms on insomnia in individuals ages 16-40 from the Norwegian national register (569). Questions asked included how often the respondents used computers, television sets, DVD, players, gaming systems, mobile telephones, and listened to music/radio in the bedroom. Weekday and weekend sleep times were also recorded in the

questionnaire. This study found that respondents that used the computer and those that used a mobile telephone at bedtime rose later and woke later on weekdays than those respondents that did not use these types of media (570). What I found very interesting about this particular study is that the authors explored anxiety and depression levels in the respondents and how they correlated with media use. The authors found that anxiety was positively correlated with use of computer, using DVD player, using mobile telephone and listening to music/radio in the bedroom and depression was also correlated positively with use of DVD in the bedroom (571). This study was also the first and one of the very few articles I found that was based on adults, but I found the age category of 16-40 to be very broad and unspecific. All of the articles I previously explored were focused on young children and adolescents. This is where my initial primary research idea came about. Since my research question is based upon college freshmen, I had the idea to conduct a similar study to the one conducted by Burnborg, et al. but based on a more specific age group. In order to pursue the effects of late night media use on college students, I conducted an interview within a focus group of 5 college freshmen and completed a self case study.

Methods

To explore the effect of late night media use on sleep habits of UCF freshmen, I decided to conduct an interview within a focus group and a case study on myself. By collecting data within a focus group, I was able to ask the participants questions that came to mind as I was conducting the interview. Participants were also able to answer each other's questions and add on to what the others said. Questions were bounced around and discussed within the focus group, which turned out to be very beneficial in collecting accurate and useful information for me to analyze. The participants of my focus group consisted of 2 male and 3 female college freshman here at UCF that I am good friends with and talk to on a daily basis. My interview was conducted in an informal setting, during a road-trip to Gainesville, so that the questions could be casually discussed. The questions included in my interview were concerned with how often and for how long the participants use the computer, television, DVD, game systems, mobile device, and music player/radio around bedtime, what hour the participants switch off the lights to go to bed during the weekend and weekdays, and how many hours of sleep the participants get per day on the week and weekends on average. The participants were asked to rate their frequency of use of certain media at bedtime from "never" to "all the time" (see Table 1). Participants were also asked what (if any) media was present in the bedroom.

Never	Not a user
Rarely	2-3 times per month
Sometimes	1-3 times per week
Often	4-7 times a week
Regularly	2-4 times per night
All the time	5 or more times per night

TABLE 1 Frequency of Media Use at Bedtime

The participants in my focus group were asked to express their symptoms of insomnia or trouble falling asleep at night and were asked to rate their level of anxiety and depression expressed during the weekends and weekdays on a scale of 1-3.

After conducting the interview in the focus group and informally analyzing my results, I decided to develop a self case study to explore how the use of media at bedtime affects my own sleeping habits. After all, I developed my research question through exploration of the cause for my own sleep deprivation in college. During the week of Monday, April 2nd through Monday, April 8th, I

carefully observed and took note of the duration and frequency of my use of media at bedtime, the hours of sleep I got each night during the week and weekend and my weekend and weekday wake times were recorded. I also observed my level of tiredness in the morning with correlation to my weekend and weekday sleep/wake times. After observing my sleep patterns for a week with use of media at bedtime, I was left wondering how my sleep habits would be altered without the use of media at bedtime. I found that exploring this question would be beneficial in adding to the conversation being held about my topic by providing a self case study that not only investigates the correlation between media use and later sleep wake times, but also offers the suggestion or idea of turning off all media before going to sleep. For the next week, Monday, April 9th through Sunday, April 15th, I turned off all media present in my dorm room (i.e. computer, television and radio) at least an hour before going to sleep and then recorded the time I went to sleep at night and the time I woke up the next morning. The results I found after completing my case study turned out to be very interesting and raised many questions to potentially be explored in future studies.

After observing my sleep patterns for a week with use of media at bedtime, I was left wondering how my sleep habits would be altered without the use of media at bedtime.

Results

After conducting my interview within my focus group, I found that the participants’ average frequency of use for television, computer and music player/radio at bedtime ranked “regularly,” ranging from 2-4 times per night. The average use of DVD and gaming systems scored an average of “rarely,” ranging from 2-3 times a month. The average score for use of mobile device at bedtime was “all the time,” ranging from 5 or more times per night. The averages for the duration or time of use for these medias at bedtime followed a similar pattern. The average duration of use for computer, television, and mobile device was 1-2 hours before bed. The average duration for use of a music player/radio was 30 minutes before bed.

Media	Computer	Television	Mobile Device	Music	DVD
Participant 1	1 hr	2 hrs	1 hr	.5 hr	0 hr
Participant 2	1 hr	1 hr	2 hrs	1 hr	2 hours a month
Participant 3	1 hr	2 hrs	1 hr	0 hr	0 hr
Participant 4	2 hrs	3 hrs	1.5 hrs	.5 hr	2 hours a month
Participant 5	2 hrs	2 hrs	1 hr	0 hr	0 hr

TABLE 2 Duration of Media Use at Bedtime

The average wake time during the week was 9am and during the weekends 11am. Sleep time during the week averaged 12am and during the weekend averaged 2-3 am. Those who had a longer frequency and duration of media use at bedtime responded with later wake and sleep times. Participants that recorded lower frequency and shorter duration of use had earlier sleep and wake times. The average rate of anxiety on a scale of 1-3 resulted in a score of 1 during the week and .5 on the weekends. Similar results were found for the rate of depression experienced. Three out of five of the participants in my focus group expressed some type of insomnia or trouble falling asleep at bedtime.

To further investigate the effects of late night media use on sleep, I conducted a self case study to compare with the results found in my interview. During the week, my average sleep time was 2am, and during the weekends 3-4am. The average frequency of use of television, computer

and music player/radio was "regularly" while the average for mobile device use was "all the time." The average duration for my use of television, computer and mobile device at bedtime was 1.5 hours per night during the week and 2.5 during the weekends. Significant levels of tiredness were correlated with later sleep times. The next component of my self case study explored the changes in my sleep times without the use of media at bedtime. Each night for an entire week, I shut off all medias present in my dorm room including the television, computer, music player/radio, and yes, my mobile device. Without the use of media, my average sleep time per night was between 12 and 1 am. As a result, I experienced earlier wake times during the weekend and experienced mild tiredness during the week when I was forced to wake up for early classes.

Day of the week	Sleep/Wake Time
Monday	2am/9am
Tuesday	1am/9:30am
Wednesday	1am/10am
Thursday	12am/9:30am
Friday	12am/10am
Saturday	12am/11:30am
Sunday	1am/12pm

TABLE 3 Without the Use of Late Night Media: Self-Case Study

Discussion

After collecting all of the data from my interview and case study and carefully analyzing the results I have found intriguing ideas about the effect of late night media use and sleep habits of college freshmen at UCF. It is important to first note the high frequency of media use at bedtime found in my focus group. All five of the participants reported using television, computer, mobile device and music player/radio "regularly" or 2-4 times a night. These results suggest that media use at bedtime is very common among college freshmen at UCF. These results further support Dolores T. Puterbaugh's, from the *USA Today Magazine*, idea that a majority of adults use a computer or television within an hour before bedtime (60.) Also, my results show that not only did the participants frequently use media at bedtime, but they also used media for extended amounts of time, ranging from an hour to 3 hours a night with regards to television, computer, and mobile device use. These results directly correlate with later bed times during the week and weekends. Respondents who reported longer duration and frequency of use also reported later bedtimes and wake times. These results are similar to those found in the study conducted on school-aged children by Burnborg, et al., who found that respondents that used the computer and those that used a mobile telephone at bedtime rose later and woke later on weekdays than those respondents that did not use these types of media (570). The results of my interview suggest that the effects of late night media use on the sleep habits of college students are similar to the patterns found in younger children, in that higher frequency and duration of media use positively correlate with later sleep and wake times. Because 3 out of 5 participants reported experiencing symptoms on insomnia or trouble falling asleep, my results have lead me to the idea that using media at bedtime has a negative effect on sleep quantity. The participants that use media late at night report having trouble falling asleep at bedtime therefore, my results suggest that their use of media plays a major role in the sleeping habits of college freshmen.

Many limitations arise in the interview within my focus group. Because sleep is affected by so many factors including but not limited to stress level, anxiety, depression, caffeine use, and many other sleep disorders such as sleep apnea, It is not appropriate for me to name late night media use

as the reason for later sleep and wake times in college freshmen at UCF. My study did not focus on all of the factors that can potentially affect sleep habits. Because of time constraints, my study was also limited to a small sample of college freshmen here at UCF. The results found in my study do not accurately portray the entire freshmen student body at the University of Central Florida. If I was given more time to complete my study I would have constructed primary research that allowed me to collect data from a much larger sample of UCF freshmen.

In order to explore how my use of media at bedtime affects my own sleep habits, I conducted a self case study, which found similar results to those found in my focus group. Later sleep and wake times were directly correlated with higher frequency and duration of use. Before conducting my case study, I used the television, computer, and my mobile device every night for hours at a time, which resulted in later bedtimes which left me feeling tired and sleep deprived the next morning when I was forced to wake up early for class. My results suggest that my heavy use of media at bedtime could be the cause for my trouble falling asleep at bedtime.

The participants that use media late at night report having trouble falling asleep at bedtime therefore, my results suggest that their use of media plays a major role in the sleeping habits of college freshmen.

As part of my self case study, I explored the changes in my sleep pattern without the use of media at bedtime. As Dolores T. Puterbaugh suggests in her article found in *USA Today Magazine*, I avoided using electronic devices for an hour or more before bed. As the week without media use progressed, my sleep times became earlier and earlier and I began to feel more rested in the mornings. These results suggest that turning off all media before bedtime can result in less trouble falling asleep at night, which results in earlier sleep times.

Because the case study was conducted on myself, I found that the results were more accurate and easier to analyze than those found in the focus group. Once again, my study was limited to the use of media on my own sleep habits and not all of the other factors that affect my sleeping pattern. If I were given the opportunity to complete the case study again, I would carefully observe and record my anxiety and stress levels to get more accurate results regarding my sleep habits.

Conclusion

Although limitations are present, my interview within a focus group and self case study were successful in pursuing my research question. Through conducting primary research, my results suggest that late night media use has a negative effect on the sleep habits of college freshmen at UCF, in which high frequency and extensive duration of use result in later bedtimes. Also, turning off all media before bed can result in earlier bedtimes and better sleep quality and quantity. Because there is a lack of extensive studies conducted on college students, other studies can be completed to add to my idea that late media use has a negative effect on the sleep habits of college freshmen not only at UCF, but college freshmen nationwide. Future researchers could also benefit from including other factors involved in sleep habits of college freshmen while conducting studies on the topic. It is necessary for more studies to be conducted in to order establish the definite effects of late night media use on the sleep habits of college freshmen because there is a lack of academic conversation and scholarly studies regarding this particular age group.

Because the topic of sleep deprivation is such a common problem among college students in today's society, it is very important to explore and discuss the possible causes for such a wide spread issue. Sleep plays a significant role in everyone's health and daily functioning. Being well rested is vital in maintaining a healthy, happy lifestyle. College students are constantly being overwhelmed with endless hours of homework, difficult exams, and extensive, time-consuming

assignments to complete each week, which makes for a stressful semester. It is extremely important that college students do everything they can to get the sleep they need in order to function properly and make good grades required to enter a successful career at the end of their time in college. My study is beneficial to college freshmen because it suggests a possible cause for trouble falling asleep and offers a "cure" or a way to help those students who use media at bedtime and suffer from sleep deprivation. It is important for college students to recognize the factors that can keep them from getting the sleep they need so that they can take measures to avoid harming their sleep quality and quantity. After pursuing my research question and becoming an "expert" on the topic, my advice to my readers is to switch "off" before you doze off in order to receive the essential rest every busy college student's body and mind needs to achieve success.

Works Cited

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