Potential Negative Effects Toward Health and Well-Being in Relation to Smart Device Use

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ABSTRACT

The purpose of this study was to consider the potential correlation between spinal and neck pain, depression, and college students’ time spent on a smart device. The problem is to understand rapid changes in technology use among college students, and how this may impact their health and wellbeing. As technology evolves, and most digital tasks are able to be performed within the palm of our hands. Health and wellbeing may be challenged in different ways. Though smart devices are used as a valuable resource for keeping up with daily activities, this also positively organizes college students under a new risk which is unknown. Is there a correlation between frequency of technology use and most specifically smart devices and neck or spinal pain? Is there a correlation between the frequency of technology use and most specifically smart devices and depression? Is there a difference among students based on non-traditional and traditional students or gender between the frequency of technology use and most specifically smart devices and depression?

BACKGROUND

Students choose to use smart devices to achieve in learning environments, and they have been shown to make changes in their technology use through the progression of their academic studies (Shin, Shin, Choo, & Beom, 2011). Student technology use is encouraged in part due to the positive role of data collection where faculty and even for-profit corporations can track student usage and intellectual interactions; smart devices in this article are seen as a “learning tool” for better organization in academics and future employment (Shin, Shin, Choo, & Beom, 2011). Being able to stay constantly connected through texting, calling, and social networking activity has a day to day behavioral effect on humans, and results showed a relationship between the individual and their social cell phone as an indicator of increased levels of stress and depression but not anxiety; notably the frequency of use was not an indicator of depression or stress (Harwood, Dooley, Scott, & Joiner, 2014). Instructors show concerns for students’ learning as multi-tasking with smart devices in the classroom can be distracting to their learning. Students seem to get more distracted with smart devices in today’s world than the first simple phones. Grinols, Bradstreet & Rajesh, (2014) found organization within students’ lives seems to be more directed towards the social media aspect as students seem not to have good organization towards their study dedication and in class learning skills because of this multitasking issue resulting in low academic performance rather than actually learning from the devices. And lastly, Dr. Kenneth Hamouk discovered that bad technology posture causes health problems as students spend an average of two to four hours a day in poor technology posture resulting in frequent neck, head and back pain or damage to the spine (Panganiban, 2011). In conclusion, students, faculty, and administration need to be informed of potential injury or risk of technology and smart device use.

METHODS

A literature review was conducted between January 19th through February 28th. An IRB was completed on February 27th which was sent to Missoula for permission to conduct a survey assessment on the day of February 28th. The survey was conducted in several classes of student that had no interaction with the researcher. Students had the option to accept or decline the voluntary survey and their information was kept anonymous. Once the surveys were filled, the students returned answered surveys to their corresponding research assistant who then gave the surveys back to the researcher. The information was kept anonymous. The results from the survey and data analyses showed that there isn’t much difference between the amount of usage of technology and frequency of technology usage considering levels of neck pain. Approximately 40% of the students surveyed do not experience any neck, head, or spinal pain during the use of mobile devices. However, students who do experience pain in their neck, head, or spinal area, show higher levels of anxiety and depression. Students experiencing pain seem to show happier effects when unplugging from the technology surrounding them. Students that claim to have a good night sleep show in the results much more often to different head items during mobile use than those students that don’t get enough sleep. Results also reveal that students with good sleep have a happier overall view in their lives than students with poor sleep. Therefore, the results also demonstrate that students with good sleep have lower levels of sadness in the past 3 days prior to the survey than the students with poor sleep.

RESULTS

The results for this research where limited to a small group of students, perhaps a larger group of students could result in different results. Another aspect that could be considered is the correlation between smart device usage and anxiety. Perhaps the higher anxiety levels the more the student uses their smart device. If using smart devices doesn’t cause intense pain what does cause the pain? Further studies could be done on how to measure proper mobile device usage. What is excessive usage and what is it not? How can pain be avoided? When should humans unplug from technology? Could excessive usage of technology affect our social behaviors or make us more social?

FUTURE STUDIES


