

## Cybersickness - A survey

B. Harini<sup>1</sup>, R. Gayathri<sup>2\*</sup>, V. Vishnu Priya<sup>2</sup>

### ABSTRACT

**Background:** Cybersickness has been studied vastly for many years and it has roots in simulators and motion sickness studies. The activity of central and autonomic nervous system has been changed due to cybersickness. Cybersickness can cause serious side effects on prolonged usage of gadgets. **Materials and Methods:** It is a survey based study, where a preformed questionnaire was ingested to the participant by an online link. **Results:** Survey results show that cybersickness is very common among the teenagers as they are addicted more to gadgets, especially, in games and social media.

**KEY WORDS:** Cybersickness, Gadgets, Addiction

### INTRODUCTION

Cybersickness is similar to motion sickness and typically occurs during or after immersion in a virtual environment. It is believed that it is primarily occurring between three sensory systems, namely visual, vestibular, and proprioceptive. Cybersickness is actually different from motion sickness, where motion sickness users are stationary, but in cybersickness, it has and compelling sense of motion through moving visual imaginary.<sup>[1]</sup> Cybersickness can also be caused by factors related to the use of virtual reality equipments which enhances the closeness of screen to the eyes as comparable to reading in a moving vehicle. This sickness occurs when detectable lags are present between head movements and recompitation and presentation of head mounted devices. Virtual reality games are characterised by head mounted devices that can immerse the user to the virtual environment, and it has been found to cause undesirable side effects called cybersickness. Accurate information about orientation and movements to the environment was evolved by human preseptal systems.<sup>[2,3]</sup> The current users of virtual environment systems have started reporting varying degrees called cybersickness, which in prior appeared to be very similar to simulator sickness. Cyber sickness is more like a visually induced motion sickness.<sup>[4]</sup> Cybersickness has been studied vastly for many years and it has roots in simulators and motion

sickness studies. The activity of central and autonomic nervous system has been changed due to cybersickness.<sup>[5]</sup> Gadgets cause any side effects. Cybersickness can cause serious issues on prolonged usage of gadgets. Driving simulation and flight simulation training are extensively produced by visual reality. However, virtual reality does have their own shortcomings.<sup>[6]</sup> Cybersickness has many symptoms which include nausea headache, eye stress, and dizziness. This is very common among the teenagers as they are addicted more to gadgets, especially, in games and social media. Cybersickness is very common affliction to users in these virtual environments.<sup>[7]</sup>

### MATERIAS AND METHODS

This was a questionnaire-based study using an online survey portal called “survey planet.” conducted among 105 college students. Results were obtained using proper statistical methods, and thus the awareness of cybersickness among college students was studied.

### RESULTS

The data were statistically analyzed and interpreted. The result was obtained through SurveyPlanet, from where each 77.1% of people spend time on gadgets, 54.3% demaned gadgets in their profession, 52.4% people suffer from sleep deprivation due to over usage, and due to this 61% of the people have an habit of getting late in the morning. Mostly, 61% of the people have eye-sighted problems. Moreover, most importantly, only 39% of the people are aware of the

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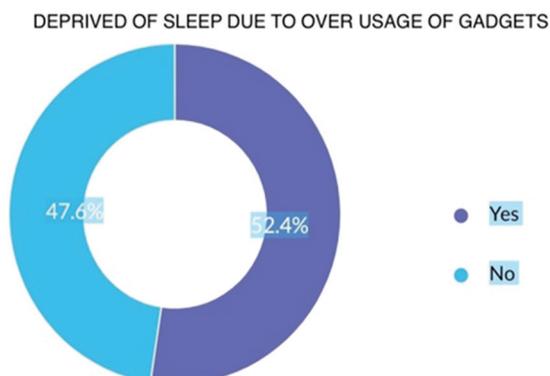
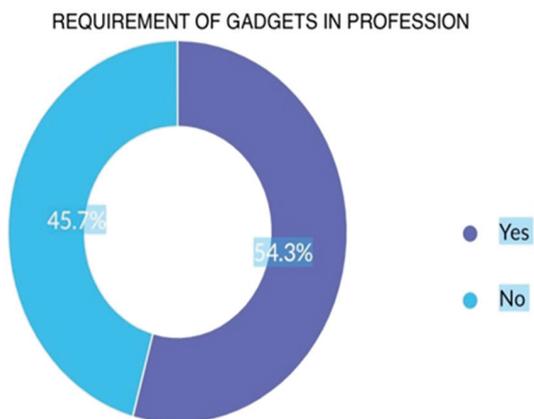
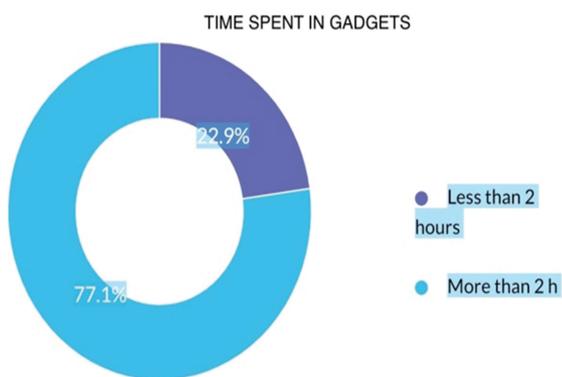
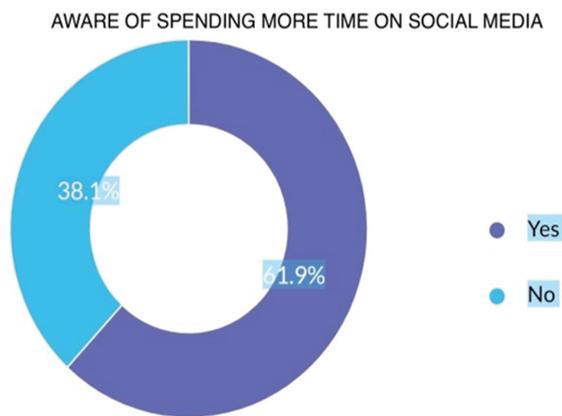
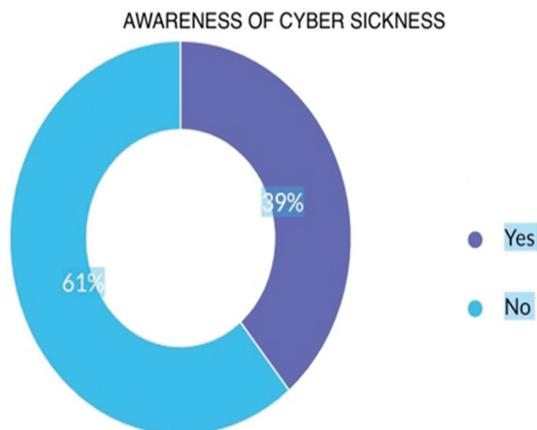
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<sup>1</sup>Department of Biochemistry, Saveetha Dental College, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai, <sup>2</sup>Department of Biochemistry, Saveetha Dental College, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai, Tamil Nadu, India

\*Corresponding author: R. Gayathri, Department of Biochemistry, Saveetha Dental College, Saveetha Institute of Medical and Technical Sciences, Saveetha University, 160, Poonamallee High Road, Chennai – 600 077, Tamil Nadu, India. Phone: +91-9710680545. E-mail: [gayathri.jaisai@gmail.com](mailto:gayathri.jaisai@gmail.com)

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term cybersickness. As a result, many children are more addicted to cybersickness.



## DISCUSSION

One of the most important and troublesome problems with this virtual environment technology is users exhibit symptoms that are parallel to the symptoms of classical motion sickness both during and after the virtual environment experience. This cybersickness even though is very distinct from motion sickness, it has many problems related to the visual, vestibular, and sensory systems in us. Cybersickness over the years is gaining knowledge and popularity among the individuals with increasing impact of using gadgets in day to day lives. As technology increases the usage of gadgets, it indirectly increases the cause for cybersickness.

## CONCLUSION

From the survey, we conclude that there is cybersickness among the students and it is increasing due to the over usage of gadgets which increases the damage of sensory, vestibular, and visual damages. Teenagers are more commonly to be affected by cybersickness as they are more addicted to electronics and gadgets and over usage of these electronics leads them to get affected. Psychological counseling and group activities can be advised to them, so as to bring them out from cybersickness slowly.

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