
Briefing Note for Dr. Peter Berman, Director, UBC School of Population and Public Health

Purpose

To present action items for how UBC School of Population and Public Health can respond to protect its students from Computer Vision Syndrome (CVS).

Background

Computer Vision Syndrome (CVS) is one of the most significant occupational hazard of the 21st century which affects 70% of all computer users (1). Due to the COVID-19 pandemic, students have been required to spend a considerable amount of work at home. Computer vision syndrome, also referred to as “digital eye strain,” is a condition composed of headaches, blurring of vision, dry eyes and other vision problems that can occur after repeated, long-term exposure to digital screens (2). While symptoms are usually transient, CVS may eventually lead to substantial visual, physical and mental discomfort with considerable health and economic impacts, including increased errors on the job, lost work time and decreased productivity among students (3).

Current Status

SPPH students are more at risk of Computer Vision Syndrome than ever before because of the switch to online teaching. Moreover, the prevalent level of awareness and knowledge of digital eye strain among students is insufficient. For instance, a new study conducted on the practice of computer ergonomics among students found that 85% of students exhibited CVS-related symptoms but only 20% of them were aware of the condition (4). Currently, there are no programs in UBC to educate students about the risks of CVS or how they can protect themselves. As the population and public health experts in the university, SPPH has an obligation and is well-positioned to be a leader in promoting health and safety among the students.

Options

1. Sending mass student emails at strategic times (before midterm and final exams) with an external link to information about CVS and links to CVS resources.
 2. Incorporating information about CVS risk and mitigation strategies on the student handbook and the UBC SPPH website.
 3. Creating an online mini course using Canvas and requiring students to complete a CVS Course and pass an assessment upon completion.
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Key Considerations

Options #1 and #2 are the least time-consuming and burdensome for the students but may result in low participation rate because too many emails are already being sent out and students may not be motivated to educate themselves due to lack of awareness. Option #3 has the most guarantee that the students will receive the information but at the cost of the faculty providing additional time and effort at the start of their courses to facilitate the Canvas module and for the students to complete an additional activity. Regardless of the options, there is very minimal investment or cost required from the school to undertake any of this.

Recommendation

Option #3 is recommended. The SPPH faculty and instructors should lead by example by prioritizing the health of the students, therefore, it is worth that extra time at the start of their classes to introduce the mini course on Canvas. Having the messaging in a platform where it is readily accessible and frequently used is the most effective way to reach the students. There is a precedence for students to take targeted training (e.g. designated time during introductory week) and this module has the potential to be expanded to educate students about other health resources available in UBC (e.g. mental health). Finally, the implementation of this initiative will be an embodiment of the vision of the school as SPPH staff and faculty are deeply committed to identifying health issues and finding solutions for the community as a whole.

Appendix I: Audience

The Director of the School of Population and Public Health, Dr. Peter Berman, was chosen as the target audience for my briefing note because he oversees the strategic planning and direction setting for the school. It is in the context of the vision of the school: “Healthier People in a Healthier World” that the SPPH staff and faculty are deeply committed to improving health at many levels – individuals, families and communities. Many of the faculty members work on the most urgent issues in population and public health. The intention of this document is to present action items for how Dr. Berman and the SPPH faculty can respond to protect its students from the harmful effects of Computer Vision Syndrome. Should Prof. Berman choose one of the other options, the facilitation of the directive can easily be implemented administratively under his management.

Appendix II: References

1. Charpe NA, Gupta S. Occupational Stress Inventory (OSI) for Ergonomic Evaluation of Work Stress Among VDT Operators. In: *Advances in Safety Management and Human Factors* [Internet]. Cham: Springer International Publishing; 2018. p. 352–60.
2. Patil A, Bhavya, Chaudhury S, Srivastava S. Eyeing computer vision syndrome: Awareness, knowledge, and its impact on sleep quality among medical students. *Ind Psychiatry J*. 2019;28(1):68–74.
3. Daum KM, Clore KA, Simms SS, Vesely JW, Wilczek DD, Spittle BM, et al. Productivity associated with visual status of computer users. *Optom St Louis Mo*. 2004;75(1):33–47.
4. Kumar BS. A Study to Evaluate the Knowledge Regarding Computer Vision Syndrome among Medical Students. *Biomed Pharmacol J*. 2020;13(1):469–73.