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Study of awareness of Computer Vision Syndrome, its prevention and the prevalence of vision related problems of professional computer users

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The Computer Vision Syndrome (CVS) is a collection of symptoms (Headache, Eye strain, Dry eye, Photophobia, Blurred vision and Diplopia) that are caused by prolong computer usage. CVS has an impact on the physical well-being and the productivity of computer users. The CVS remains as an underestimated and poorly understood issue in the world. Therefore, this study was done to investigate associations among awareness of CVS and its prevention and also the prevalence of vision related problems of professional computer users caused by computer usage.

There were 72 identified software companies in Colombo (sampling frame) and no significant differences of computer users among companies. Six companies were randomly selected and each user was included in the sample. This sampling scheme is defined as a one-stage cluster sampling. The sample consists of 106 professional computer users. The data were collected by self-administered questionnaire. Data analyses were descriptive statistical analysis, test for associations using chi-squared tests and correlation analysis.

The results revealed that awareness of CVS was relatively low (34%). The awareness was not significantly associated with gender ($p=0.47$) but significantly associated with educational levels of computer science ($p=0.01$). Females were more aware about CVS and its prevention. The usage of safety precaution were significantly greater in females than males. The computer users having MSc were more awareness of CVS and safety precautions than those having Diplomas or BSc. The most of professionals who have MSc knew about safety precautions, their usage of safety precautions and the awareness of ergonomic modifications were relatively low compared to Diplomas and BSc. The eye fatigue was the most common vision problem (45%). It has strong significant ($p<0.001$) positive correlation ($r=0.9908$) with the number of hours of using computer for a day. The percentage of eye fatigue increased with the number of hours of using computer for a day. The most effective safety precaution is work breaks. The majority (67%) of sample used work breaks, however, only 20% of the sample used proper work breaks. This study was limited to Colombo district, however, there was no evidence that CVS is related to geographical location.