“See More” Project

Introduction

Performing close tasks that require visual effort, such as reading, writing, or using digital devices, exercised continuously and over a long time, can lead to several disturbances and can cause various disorders and the visual system is strongly affected. (1) The progression in the educational level which inevitably leads to a greater visual effort in performing school tasks, makes the students more likely to report symptoms and to present signs associated with vision disorders. (2,3) However, these types of symptoms can be reduced or avoided by adopting healthy visual habits. (4,5) The "VER +" project (‘See More’, in English) is a project to be applied in a school environment, aiming to valorize, educate and increase responsiblity for the promotion of visual health. It has been applied in a city-based school in the center of Portugal, since 2015.

Objectives

To present the current results of the "VER +" project.

Methods

Part one: visual screening, directed at all students enrolled in a school. The screening protocol, properly validated, is applied in a school environment with adequate equipment. Second part: visual health education sessions, addressed to students in the 6th year of schooling. The sessions are conducted in the classroom and the transfer of knowledge is inferred through questionnaires, related to the topics covered, before and after each session.

Results

In the screening performed in the first year, suspected uncorrected refractive error was identified in 15% of the students, and a further 30% were suspected of binocular vision anomalies. In the second year, there was a reduction in the frequency of the same conditions, but this variation was not significant. The students who participated in the actions of visual health education, had fewer changes in binocular vision. In the actions of visual health education there has been a very significant increase in knowledge about the functioning of the eyes in each of the topics covered. Regarding behaviours, follow-up has shown several changes in visuo-postural habits, but few are significant. However, there are currently better habits than in the first year of the study.

Conclusion

The estimated visual changes are similar to those reported in other studies in developed countries and show that changes in binocular vision are the most common. The sessions of Visual Health Education reveal a strong illiteracy in this area. Increasing knowledge about visual function, from the dynamics of the eye to the correct interpretation of signs and symptoms associated with visual stress, becomes of paramount importance. It is also necessary to educate young people to adopt healthy visuo-postural habits in order to encourage them to be more responsible for their own visual health.

Bibliography

1. Goldstand, S., Koslowe, K. C., & Parush, S. (2005). Vision, visual-information processing, and academic performance among seventh-grade schoolchildren: a more significant relationship than we thought?. *American Journal of Occupational Therapy,*  *59*(4), 377-389.
2. Abdi, S., Lennerstrand, G., Pansell, T., & Rydberg, A. (2008). Orthoptic findings and asthenopia in a population of Swedish schoo lchildren aged 6 to 16 years. *Strabismus*, 16(2), 47-55 years.
3. Rosenfield, M. (2016). Computer vision syndrome (aka digital eye strain). *Optometry*, *17*(1), 1-10.
4. TENG, T. B., & LI, T. (2008). A research on therapeutic effect of comprehensive health management for myopia of teenagers. *Chinese Journal of Woman and Child Health Research*, *3*, 014.
5. Pärssinen, O., Leskinen, A. L., Era, P., & Heikkinen, E. (1985). Myopia, use of eyes, and living habits among men aged 33–37 years. *Acta ophthalmologica*, *63*(4), 395-400.

Authors

Amélia Fernandes Nunes, Universidade da Beira Interior, Centro de Investigação em Ciências da Saúde (CICS), Centro Clinico e Experimental e Ciências da Visão ( [amnunes@ubi.pt](mailto:amnunes@ubi.pt))

Carlos Manuel Ramos Martins, Coordenação do PNSE do ACeS Cova da Beira– Agrupamento de Centros de Saúde Cova da Beira (ACeS CB) ([cmmartins2@arscentro.min-saude.pt](mailto:cmmartins2@arscentro.min-saude.pt))

Henriqueta Luisa Duarte Forte, Unidade de Saúde Pública (USP) – Agrupamento de Centros de Saúde Cova da Beira (ACeS CB) ([uspcbeira@gmail.com](mailto:uspcbeira@gmail.com))