

Neuro-Ophthalmology and Public Health: Color Vision as Identifier for the Impair Brain Pathways and E-Gaming



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Letter to Editor

Dear Editor,

The inherited departures from normal color vision are generally predictable in their characteristics, usually affecting all parts of the visual field in both eyes. There exist a wide group of color vision disturbances which are acquired during life, predominantly the result of ocular or general disease, the consequence of exposure to a chemical, toxin or medication or resulting from physical injury to the head. The study about of functional goodness of the visual brain pathways from V1, primary visive area, to V4, color vision area, within the occipital area of the brain cortex, can highlight on the neurological damages on the corresponding neurons; according with the involved brain visive areas these damages can cause red/green and/or impair color vision brain pathways, until a black/white vision.

Electronic sports (e-sports) are fast gaining acceptance as both at par with traditional sports, and the virtual athletes being celebrated as real live sports athletes e-sports if formally defined as “an area of sport activities in which people develop and train mental or physical abilities in the use of information and communication technologies”.

Gaming disorder has been recognized as an official diagnostic entity in the latest revision of the International Classification

of Diseases. It has become a significant public health concern. There were 2,8 billion online game players worldwide with the increasing of game users, the psychological and physical harm due to excessive gaming behaviors has caused concerns in Psychiatry, Public Health, Education and Administration. Until now, the mainstream view considers excessive and uncontrollable gaming behavior as an addictive disorder. Adolescents are particularly vulnerable to gaming disorder and often experience series of negative consequences, including low self-esteem, intense negative mood states (sadness, irritability, and boredom, relationship conflicts and problems at work or school).

From a neuro-biological point of view, the analysis of color vision and/or the brightness is very basilar to highlight the motor stereopsis, within the e-gaming and vision problematic. And, the above studies can be considered when all the physicians and not-physicians make mass screenings on color vision online or on telemedicine. All the scientific information that the color vision as biological marker can give us, reflect the neuro-psychological state of the “real” and/or “virtual” world, too. In this way, a specific metric structure regarding color space in those e-games memorized by children, and adolescent players brain can be created. This kind of analysis has called mnemonic strategy analysis which can be specific for each subject, and never standardized from general point of view.



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