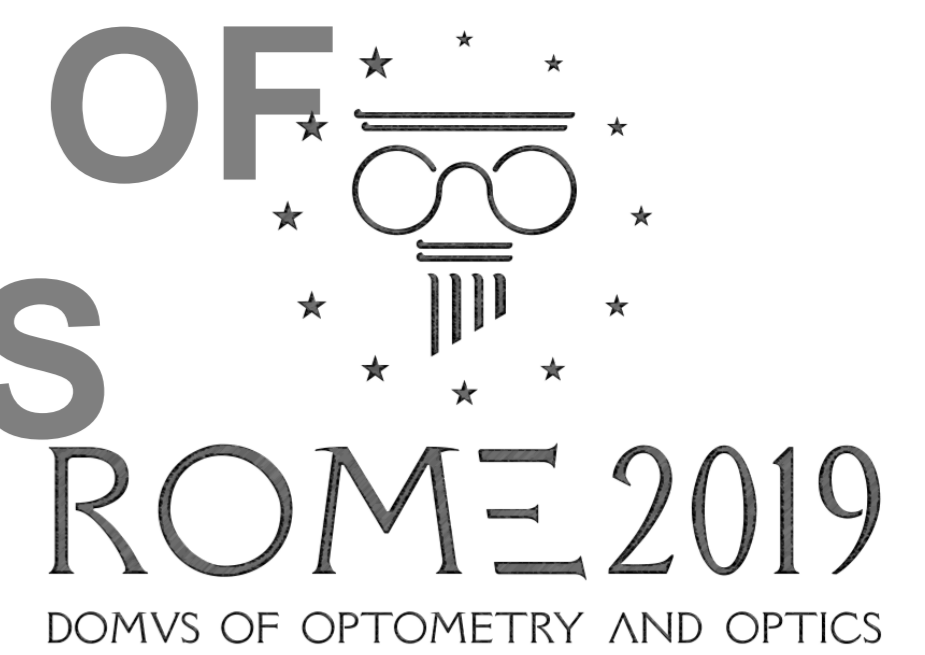




SYMPTOMATOLOGY ASSOCIATED BY USE OF COMPUTERS IN UNIVERSITY STUDENTS



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INTRODUCTION

The use of computers and electronic devices (tablets and smartphones) is essential in many aspects of current academic, professional and social life, as the number of people who uses this devices has increased exponentially in recent years. In fact, a recent report suggests that adults can spend, on average, approximately 8.5 hours per day watching electronic screens.

Studies suggest that between 64 and 90% of device users experience visual symptoms. These symptoms include eyestrain, headaches, eye discomfort, dry eye, diplopia, and blurred vision, either in far or near vision.



PURPOSE

To detect the most frequent signs and symptoms in young university students associated to the use of devices with LED screens, through questionnaires.



MATERIALS AND METHODS

122 university students of both sexes (mean age 22 ± 0.2 years) were evaluated regarding the frequency and intensity of signs and symptoms associated with the computer vision syndrome (CVS) that they present after continued use of LED-screen displays. For this purpose, a questionnaire has been used based on surveys validated by other researchers, adapted to our environment.

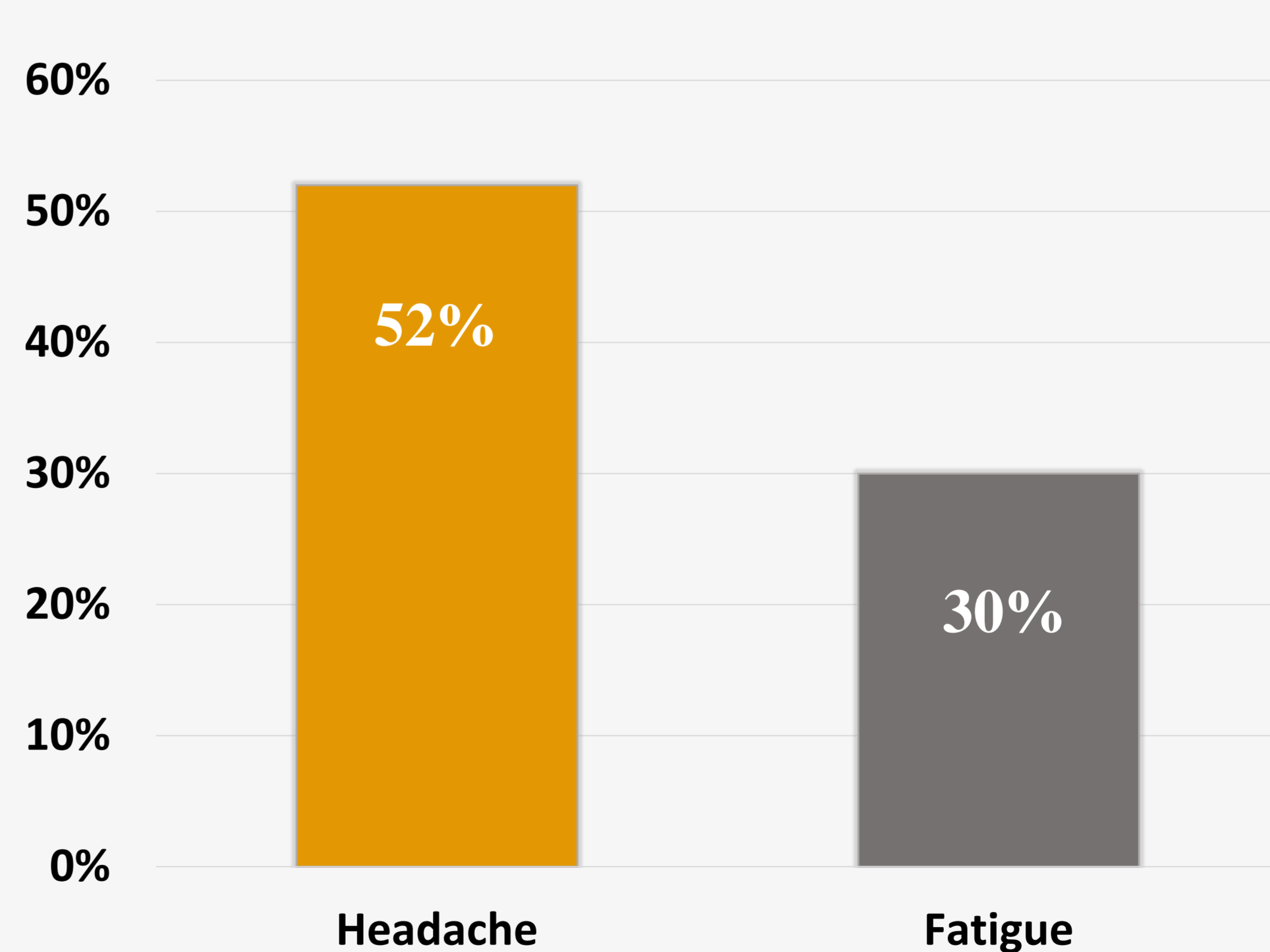
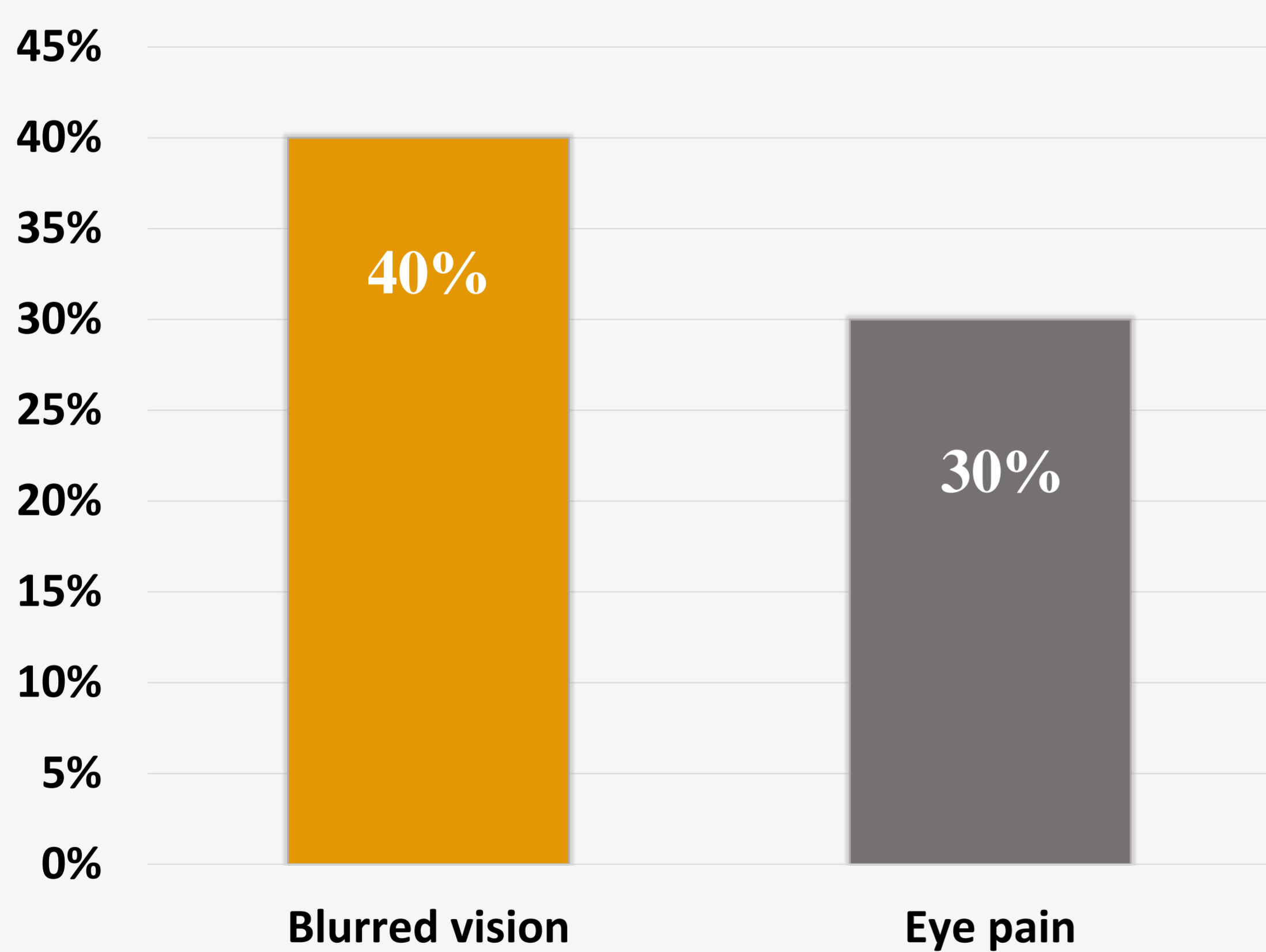
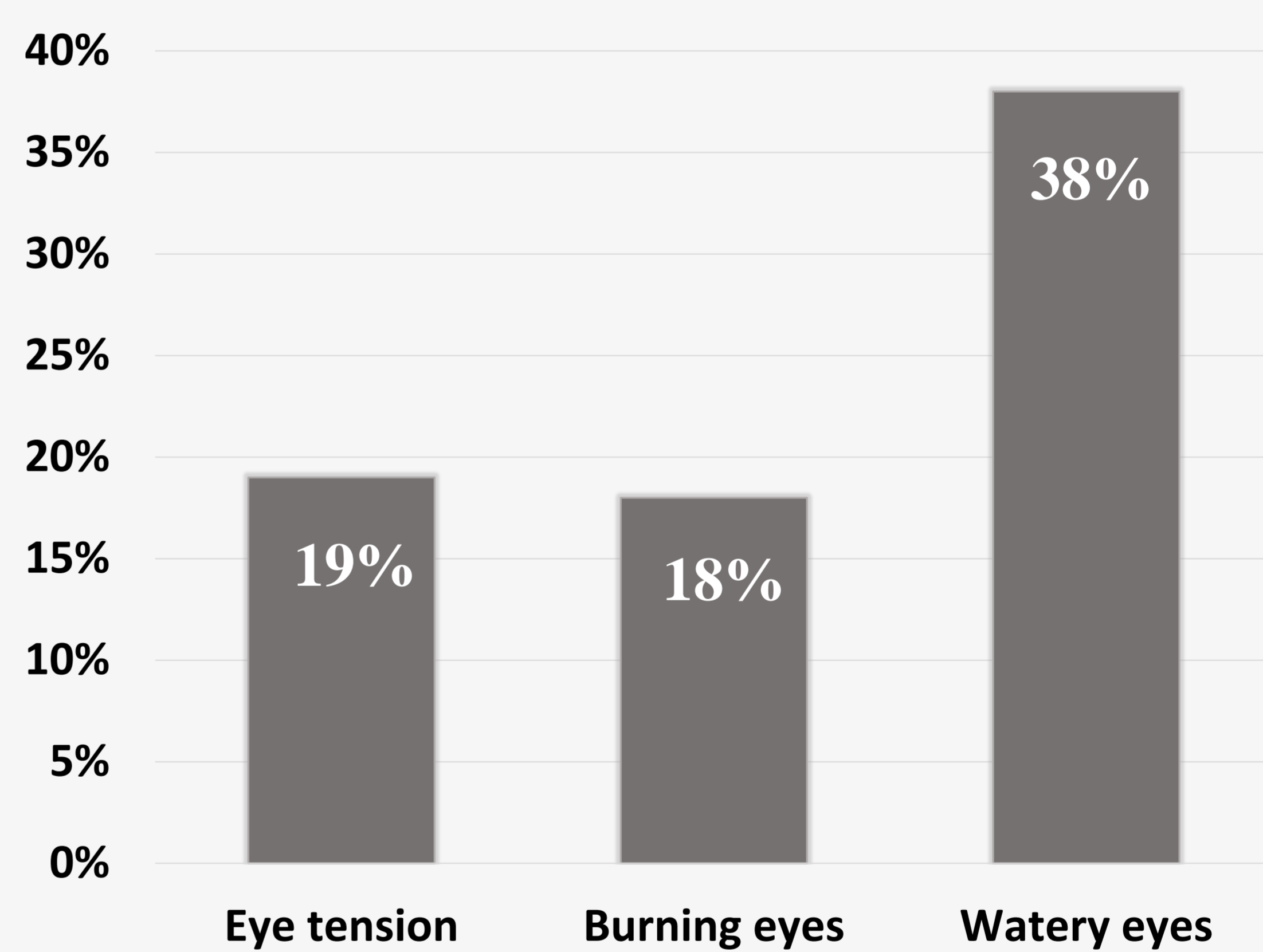
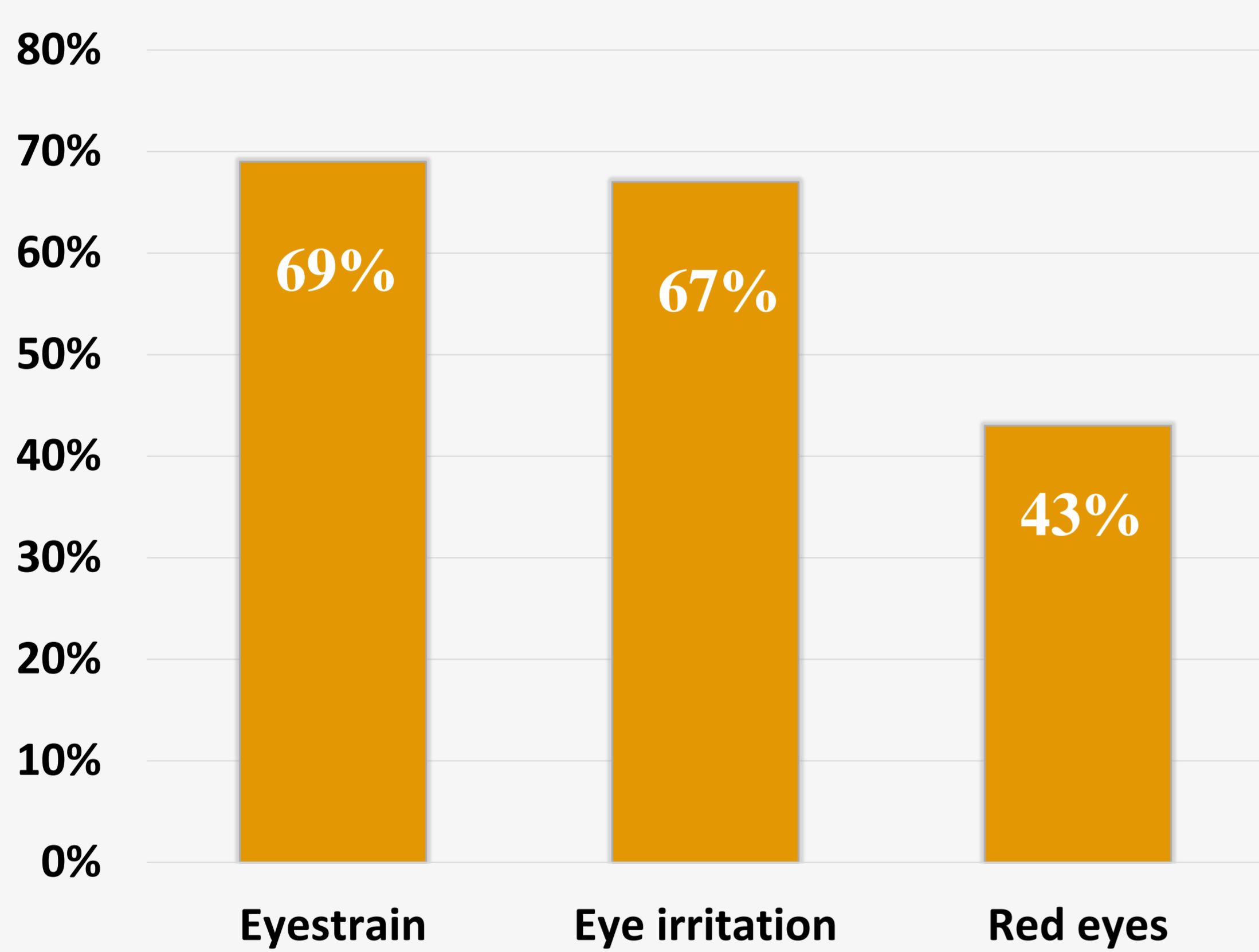
The questionnaire used in this study was divided in four sections. In the first one, the personal data of the subjects (name, age, sex ...) was collected as well as the rate of usage of digital devices. In the second section, subjective questions in regards to visual fatigue were asked, such as pain, eyes burning or itching, back pain, dry eyes or blurred vision and the frequency and duration of these symptoms. In the third section, refraction and optical correction were gathered. Finally, in the fourth one, questions about the study environment of the subject (lighting type, workplace situation, characteristics of the most used electronic devices and glare factors) were asked, being yes or no the possible answers.



RESULTS

Among the most frequent symptoms and signs are eyestrain 69%, eye irritation 67%, headache 52%, red eye 43% and blurred vision 40%. Others are eye strain 19%, burning eyes 18%, watery eyes 38%, eye pain 30%, and fatigue 30%.

However, when they were consulted as to whether this symptomatology prevents them from continuing to use device screens after their study time, they state that they do not present any inconvenience to use devices in their leisure time.



CONCLUSION

The study shows a massive expression in young people of the symptoms and signs associated with CVS by the continued use of LED screens, the greater the longer the using time.



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