



EDITORIAL

The role of refraction in vision research

El papel de la refracción en la investigación en visión

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Refraction is defined as the act of determining the focal condition (emmetropia or various ametropias) of the eye and its corrections by optical devices, usually spectacles or contact lenses.¹ It is one of the most important activities of the clinical work of optometrists and an indispensable variable to be considered in studies on vision. Refraction is a cause of avoidable blindness, being the second cause of blindness in less-developed countries (18%), after cataract (39%).² Likewise, refraction is the first factor to consider in cases of binocular and accommodative disorders and consequently the first condition treated in such cases.³ Furthermore, one of the main areas of research and innovation in Visual Sciences, refractive surgery, is aimed at minimizing refraction, at providing spectacle independence and consequently quality of life.⁴ Therefore, refraction is one of the most important variables to evaluate in studies on vision and consequently in studies on Optometry, as a branch of Visual Sciences.

A great variety of studies evaluating the effect of some therapeutic approaches, the outcomes with different optical aids, the distribution of refractive errors in different areas of the world or how to evaluate the impact of refractive error in some vision-related abilities have been conducted and reported since many years ago. The current issue of

Journal of Optometry is an additional contribution to scientific community with some interesting and well-conducted researches involving refraction. The evaluation of the distribution of refractive errors in some distant areas such as Puerto Rico or Qassim Province (Saudi Arabia) as well as the study of the prevalence of asymptomatic ocular conditions in subjects with refractive-based symptoms in a Canadian population are shown in the current issue. Likewise, the refractive change as well as other related changes after corneal surgery are discussed in two papers, one about seasonal changes in the outcome after LASIK surgery and another review paper about the outcome of corneal collagen crosslinking.

Optometrists must continue considering in the clinical practice refraction as a crucial tool to evaluate the results of different optometric treatment approaches, to define the most adequate protocol to follow, and to diagnose some eye conditions. In agreement with this, Optometry research must deepen their knowledge on refractive changes in different ocular conditions as well as on new options to compensate refractive errors.

References

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