



# Psychological interventions to reduce intraocular pressure (IOP) in glaucoma patients: an editorial

Aaron Carlisle<sup>1</sup> · Augusto Azuara-Blanco<sup>2</sup>

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Mental health and vision are intrinsically linked. It is well known that vision loss and vision-related functional disability in daily activities may induce psychological distress and depression, but these symptoms are often missed. Interestingly, psychological stress, depression, and anxiety have been associated with glaucoma progression [1, 2].

As clinicians trying to improve the health outcomes of our patients with glaucoma (or other eye diseases), we typically consider only the efficacy of interventions regarding some anatomical and functional measures, e.g. visual acuity, intraocular pressure, retinal thickness, or visual fields. It appears that we often ignore the impact of eye disease and treatments on patients' quality of life. Shouldn't we get to know our patients better and understand what is important to them, and how their eye disease and our treatments and clinic visits are impacting their lives when we discuss possible management options?

In this issue of *Graefe's Archive for Clinical and Experimental Ophthalmology*, Wu and Choi have synthesised current evidence on the efficacy of psychological interventions to reduce intraocular pressure (IOP). As a supplement to conventional pharmaceutical, laser, and surgical methods, psychological interventions can play an important role in the holistic care of glaucoma patients by reducing psychological symptoms and, perhaps surprisingly, improving glaucoma control. Several trials, some of good quality, reported that daily meditation can improve not only IOP control but also biochemical markers associated with glaucoma and convey psychological benefits [3]. Similarly, other chronic conditions such as hypertension, coronary heart disease, diabetes, asthma, obesity, and cancer have seen a rise in the use of psychological therapy, with promising gains [3].

A variety of meditation, deep breathing, and yoga techniques were used and all were associated with a short-term reduction

in IOP [3–5]. Interestingly mechanistic evaluations identified by Wu and Choi appear to show an improvement of inflammatory markers, changes in gene expression, and an increase in well-being markers such as endorphins, brain-derived neurotrophic factor (BDNF), and total antioxidant capacity [3].

Most studies had short-term interventions (days or weeks) with limited follow-up and small sample sizes that may limit their applicability and generalisability to wider populations. Long-term studies with adequate follow-up are now required to evaluate the effects of psychological interventions on other important glaucoma-related outcomes, such as disease progression.

Meditation-based therapies are complex interventions; thus, careful consideration regarding the standardisation of the technique, quality assurance, and adherence will be needed. But the systematic review by Wu et al. justifies further research in this area.

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✉ Augusto Azuara-Blanco  
a.azuara-blanco@qub.ac.uk

<sup>1</sup> Belfast Health and Social Care Trust, Belfast, UK

<sup>2</sup> Centre for Public Health, Queen's University Belfast, Belfast, UK