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Contact Lens and Anterior Eye

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Correspondence

Contact lens wear during the COVID-19 pandemic

Dear Sir

The COVID-19 pandemic which has swept the world since the start of 2020 is unprecedented in modern times and is having a considerable impact on day-to-day lives including contact lens wear and practice [1]. A recent review in this journal found no relationship between contact lens use and COVID-19 infection [2], perhaps in part because it is rare to find the SARS-CoV-2 virus even in the tear films of patients who have tested positive for the disease [3]. Similarly, bodies such as the United Kingdom College of Optometrists [4], the British Contact Lens Association [5] and the United States Centers for Disease Control and Prevention [6] have also indicated this same lack of association. Despite these reports and recommendations, there have been media reports to suggest that ceasing contact lens wear is recommended at this time.

It is important for eyecare practitioners, educators, researchers and the contact lens industry to assess the impact of the COVID-19 pandemic on the behaviours of contact lens wearers, many of whom are 'locked-down' in their homes as of early April 2020, and to determine the reason for any change in their contact lens usage. To this end, a survey was conducted from April 9-12, 2020 amongst contact lens wearers who had recently attended the Eurolens Research group at the University of Manchester for clinical studies. Because this work was considered to be 'market research' by the university and as no personal information was captured, no ethical approval was required. Subjects taking part on current studies were excluded. A total of 433 people were e-mailed and asked to complete a simple questionnaire hosted through the university's online survey engine.

During the four days of the survey, full responses were received from 100 wearers, a return of 23 %. Eighty nine (89 %) of the group reported that they were living in a 'lockdown' situation (e.g. working from home and/or self isolating) with the remainder (11 %) working and living normally. Of the lockdown group, 20 (22 %) reported using their contact lenses about the same as usual, five (6%) were using their lenses more than usual with the remaining 64 patients (72 %) wearing their lenses less than normal. Of those living normally, six (55 %) were using their lenses as normal with five (45 %) wearing their lenses less.

Given that the clear majority of lens wearers in lockdown are using their lenses less than in normal times, it is pertinent to consider the key reasons for this. The most common explanation was that there was simply a perception of 'less need' for contact lenses for those currently at home (75 % of those reporting reduced wear) often reported as being because (a) wearers use lenses when meeting friends or socialising (which is not currently possible), (b) contact lens wear is associated looking and feeling appropriately dressed for work (which is presently suspended) or (c) lens use is considered to be particularly beneficial in a 'distance-orientated' world rather than an indoors situation.

Other reasons for reduced contact lens wear during lockdown included concern about infection due to contact lens use (8 %), saving money (5 %), glasses bring currently more convenient (3 %), limiting lens use in the case of supply problems (3 %) and giving eyes a rest (2 %). Three percent of subjects did not provide a reason for their reduced lens use

For those using their lenses more in lockdown, this was due to taking greater exercise (two respondents), and one respondent each reporting a general 'greater need' and contact lenses being more convenient in the warm weather.

For the locked-down/reduced wear group, the reasons for the change to wearing patterns were very similar for the two main lens groups reported: soft daily disposable wearers (65 % of respondents) and soft daily wear reusable wearers (32 %).

This work found that a great majority of respondents are currently locked-down with most of this group using their contact lenses on a reduced basis, principally due to a decreased need given the change to their day to day circumstances and environment. It would be reasonable to speculate that with the ending of the lockdown in the coming weeks, contact lens use will increase as lives return to normal and the benefits of contact lens wear again become apparent to the wearer base.

This work was conducted on people who have previously volunteered for contact lens clinical studies in a university setting in a major city centre and may therefore be a more 'urbanised' group than an average contact lens wearing cross-section. However, the subject base of the Eurolens Research group has a similar age and sex distribution compared to lens wearers across the United Kingdom [7], and the data presented here problably represent a reasonable snapshot of contact lens use during the 2020 pandemic.

References

- [1] F. Zeri, S.A. Naroo, Contact lens practice in the time of COVID-19, Cont Lens Anterior Eye (2020), https://doi.org/10.1016/j.clae.2020.03.007
- [2] L. Jones, K. Walsh, M. Willcox, P. Morgan, J. Nichols, The COVID-19 pandemic: important considerations for contact lens practitioners. Cont Lens Anterior Eve (2020), https://doi.org/10.1016/j.clae.2020.03.012.
- [3] I.Y.J. Seah, D.E. Anderson, A.E.Z. Kang, L. Wang, P. Rao, B.E. Young, et al., Assessing viral shedding and infectivity of tears in coronavirus disease 2019 (COVID-19) patients, Ophthalmology (2020), https://doi.org/10.1016/j.ophtha.2020.03.026.
- [4] The College of Optometrists. Safety of contact lens use in contracting COVID-19 https://www.college-optometrists.org/the-college/media-hub/news-listing/safetyof-contact-lens-use-in-contracting-covid-19.html (Accessed 14 April 2020).
- [5] Contact Lens Wear and Coronavirus guidance https://www.bcla.org.uk/Public/ Public/Consumer/Contact-Lens-Wear-and-Coronavirus-guidance.aspx (Accessed 14 April 2020).
- [6] CDC, Coronavirus disease 2019 (COVID-19), Centers for Disease Control and Prevention, 2020, https://www.cdc.gov/coronavirus/2019-ncov/faq.html#howprotect-yourself.
- P.B. Morgan, N. Efron, Demographics of UK contact lens prescribing, Cont Lens [7] Anterior Eye 31 (2008) 50-51.

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