

LETTER TO THE EDITOR

Remote visual impairment teaching clinics during COVID-19 at a university optometry school

To the Editor:

I read with great interest the article by Jonuscheit *et al.*¹ discussing modifications that had been made to Optometry teaching across the world in response to COVID-19. I thought it might be of interest to readers to learn how teaching in visual impairment was modified as a result of the pandemic at City, University of London, particularly in light of the authors' comments about online consultations and teleophthalmology. Although the impact of the first lockdown in March 2020 was negligible as all visual impairment teaching sessions had ended, challenges arose at the start of the new academic year in September 2020. One of the major challenges related to social distancing guidelines which meant that a smaller number of students could be accommodated in the clinic at any given time. As a result, the slots that the visual impairment clinic normally ran were unavailable, and it became almost impossible to identify new slots that could accommodate all students within the time constraints of the academic term. There was also the added difficulty that many of the patients who visited the clinic were classed as vulnerable and were likely to have been on the UK government's shielding list.² I therefore decided to investigate the possibility of moving the clinic online, and reviewed existing evidence to understand the benefits and pitfalls of online visual impairment consultations.

Unfortunately, the literature on remote visual impairment clinics is sparse although there are currently two ongoing studies relevant to remote visual impairment rehabilitation; both are investigating the feasibility of remote training in the use of specific low vision aids.³ Despite the lack of evidence in visual impairment, I found growing evidence about the use of remote consultations in other areas of ophthalmology such as Accident and Emergency⁴ and orthoptics.⁵ I also had anecdotal evidence both from patients, other practitioners and from my own experience that remote consultations were possible. I therefore felt that given the circumstances it was best to move clinics online. I choose Zoom (zoom.com)⁶ as my platform as I was aware that many patients were familiar with the technology, and the university had enhanced security on their version of the software.

To give you some background, the visual impairment clinic at City, University of London is run with the help of volunteer patients. The decision to run these clinics with volunteers is largely due to a lack of funding. In England, many visual impairment clinics are held in hospitals and there is limited funding to run them in the community.

Over the last ten years a database of volunteer patients has been built up. This was extremely useful as I was able to make contact with most volunteers and ask if they would be willing to volunteer online. Following an overwhelmingly positive response I set up clinics using Zoom. Prior to the online clinical session, I had a trial session with the volunteer to ensure the technology worked and to explain how the clinical session would run. I also ran a tutorial with the students so that they understood how the session would work and the expectations from them during the session; for example, ensuring that their camera was on and they were in a private place. Additionally, students joined the virtual clinic 15 min before the patient joined to discuss what role each student would play.

The clinics were carried out in small groups, with three to four students, one volunteer patient and one experienced low vision optometrist (the author). The session started out with introductions, followed by history and symptoms. The students took it in turns to ask questions in a pre-determined order until they exhausted their questioning. The supervising optometrist then took over and filled in any gaps. Following history, habitual distance visual acuity was measured using the validated Home Acuity test,⁷ which had been printed out and posted to the patients in advance with a 1.5 m string. Patients were instructed to place the charts on a wall and use the string to stand at the correct distance from the chart. The instructions on the Home Acuity test website were followed to obtain a measurement of distance acuity.⁸ Near visual acuity with habitual correction was similarly measured using a near vision chart.⁹ The charts were also used to measure acuity with the patient's low vision aids and helped in determining magnification requirements. Following acuity measurements, advice was given to the patients including discussing management options, for example, referring patients to a face-to-face clinic when appropriate. Once the patient had left the session, students stayed back to discuss the case and received feedback.

Overall, informal feedback received from these sessions has been positive and we have been able to cover a majority of areas that would have been discussed during the face-to-face clinics. Where this has not been possible, for example with refraction, then students have been encouraged to practice these techniques in the primary care clinics. The one disadvantage of conducting online clinics has been that students were not able to physically handle different low vision aids. To overcome this, a box with different low

vision aids was left in the dispensing clinic. Students are expected to look through the box during their dispensing clinics and complete a compulsory exercise.

In conclusion, I agree with Jonuscheit *et al.*'s¹ observation that although the pandemic has resulted in serious challenges, it has also opened up opportunities and made us think outside the box. As an example, I would never have considered remote visual impairment teaching clinics, and yet having successfully run these and seen the benefits first hand (for example, greater access for patients) I have decided to make these clinics a permanent part of my module although I will be combining them with face-to-face clinics.

Ahalya Subramanian

Division of Optometry and Visual Sciences, City, University of London, London, UK

E-mail address: Ahalya.Subramanian.1@city.ac.uk

References

1. Jonuscheit S, Lam AKC, Schmid KL *et al.* COVID-19: ensuring safe clinical teaching at university optometry schools. *Ophthalmic Physiol Opt* 2021; 41: 144–156.
2. *Guidance on shielding and protecting people who are clinically extremely vulnerable from COVID-19* [Internet]. GOV.UK. [cited 2021 Jan 22]. Available from: [https://www.gov.uk/government/publications/guidance-on-shielding-and-protecting-extremely-vulnerable-persons-from-covid-19/guidance-](https://www.gov.uk/government/publications/guidance-on-shielding-and-protecting-extremely-vulnerable-persons-from-covid-19/guidance-on-shielding-and-protecting-extremely-vulnerable-persons-from-covid-19)
3. Bittner AK, Yoshinaga PD, Wykstra SL & Li T. *Telerehabilitation for people with low vision*. Cochrane Eyes and Vision Group, editor. Cochrane Database of Systematic Reviews [Internet]. 2020 Feb 26; Available from: <http://doi.wiley.com/10.1002/14651858.CD011019.pub3>.
4. Kilduff CL, Thomas AA, Dugdill J *et al.* Creating the Moorfields' virtual eye casualty: video consultations to provide emergency teleophthalmology care during and beyond the COVID-19 pandemic. *BMJ Health Care Inform* [Internet]. 2020;27:e100179. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7430180/>.
5. Rowe F, Hepworth L, Howard C & Lane S. Orthoptic Services in the UK and Ireland During the COVID-19 Pandemic. *Br Ir Orthopt J* [Internet]. [cited 2021 Jan 22];16:29–37. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7510392/>.
6. *Video Conferencing, Web Conferencing, Webinars, Screen Sharing* [Internet]. Zoom Video. [cited 2021 Jan 22]. Available from: <https://zoom.us/>.
7. Crossland MD, Dekker TM, Hancox J *et al.* Evaluation of a home-printable vision screening test for telemedicine. *JAMA Ophthalmol*. 2021. <https://doi.org/10.1001/jamaophthalmol.2020.597>.
8. *Home Acuity Test* [Internet]. [cited 2021 Jan 22]. Available from: <https://homeacuitytest.org/>.
9. *Optima - The Low Vision Experts - Choosing LVAs - Finding the correct level of magnification* [Internet]. [cited 2021 Jan 22]. Available from: <http://www.optimalowvision.co.uk/choosing.cfm?id=1572>.