

Re:View

Keeping excellence in your sights | September 2018 | Issue 34

**Next steps after
FBDO: research**

Profile

Courses coordinator, Rian Love

Interview:

Emma Fawcett

Combining work with study

**FBDO: what
happened next**



Exciting new experiences ahead



Following the sweltering summer that we've experienced in the UK, September is here at last, and ABDO

College is delighted once again to extend a warm welcome to our newest students.

We all know that mixture of excitement and trepidation that accompanies the commencement of a new venture, but the experience of the many hundreds who've gone before should reassure

you that this will be one of your happiest and most rewarding.

This summer we've been very sorry to lose Steve Roberts from the staff. In his role as courses coordinator for Optical Support Programmes, Steve was the College's main point of contact for WCSM courses. Although only with us briefly, Steve carried out his role with great commitment and we wish him every success in his new employment.

The future looks bright, however, as we're very pleased to welcome Rian Love as his replacement. Rian brings with him a wealth of experience and enthusiasm, and I urge you to read his story on page 5, which also gives us

a flavour of the many directions which life can take, following qualification as a dispensing optician.

This issue of *Re:View* is filled with many such tales, which are as inspiring as they are diverse. Whether you see yourself attaining a top-up BSc(Hons), a specialist qualification in contact lenses or low vision, a PhD or MSc, or a career in education or research, read on to learn more...

Angela McNamee

BSc(Hons) MCOptom FBDO (Hons) CL FBCLA Cert Ed

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ABDO College

Godmersham Park, Godmersham, Canterbury, Kent CT4 7DT

tel: 01227 738 829 option 1 | fax: 01227 733 900

info@abdocollege.org.uk | www.abdocollege.org.uk

www.twitter.com/abdocollege | www.facebook.com/ABDOCollege |

www.linkedin.com/company/the-abdo-college-of-education | www.instagram.com/abdocollege



News

Summer renovations

Godmersham has been a hive of activity since the last block of students left on 1 June. The three-month period over the summer is a crucial time each year to prepare the College for the new academic year.

The main project for this summer has been to plan the refitting of the Lecture Theatre with new, contemporary seating/desk combinations to increase the capacity of the room from 60 to just over 100. Scheduled for fitting in December, the new seating will mean that whole block groups will be able to have lectures at the same time, allowing a more consistent delivery for all students along with far greater flexibility when it comes to timetabling.

College technician, Mark Turner, said: "The revamping of the Lecture Theatre has been on the agenda for a long time. I'm really looking forward to our students and

lecturers using the new space for the first time and seeing the benefits it will give to the College as a whole."

Other building works have included fitting complete black-out blinds to the Optics and Ophthalmic Lens labs meaning that practical workshops and experiments around the behaviour and properties of light itself can now take place in absolute darkness, meaning much improved control and view during these sessions.

Mark has also been very busy updating the College's technical equipment with new kit including focimeters, frame repair sets and smart boards, etc, available for students to use from September.



Mark Turner

Bumper crop of courses

The courses team have been processing record numbers of applications over the summer for many of the programmes offered by ABDO College.

The Contact Lens Course is currently on track to have almost double the number of students enrolled compared to last year, along with significant growth in the BSc Hons Degree in Ophthalmic Dispensing. The team have also been creating and testing new systems to allow student reporting to be completed via email, meaning a quicker, more environmentally-friendly service when sending academic progress reports to the various cohorts.

Stronger socially

Over the past few months, the College's social media presence has gone from strength to strength – gaining more than 1,600 followers across the Facebook and Instagram platforms.

The feeds are regularly updated with College news and information, along with more fun stuff along the way so if you haven't checked them out yet please do.

Giving it 100%

ABDO College will be present at 100% Optical in London from 12–14 January 2019 and, for the first time, the ABDO College Bookshop will be showcasing its extensive range of optical books and dispensing equipment.

You'll be able to visit ABDO and the College on stand B244. Stay tuned for more information about our presence at the show over the next few months.



Bookshop to make 100% Optical debut

Next steps after FBDO: research

Whether you are on the road to becoming a dispensing optician (DO), or about to embark upon the DO course, the question of where the qualification will take you will almost certainly arise. For some, the prospect of becoming a DO, and all of the challenges and rewards that come with the role, will be enough. However, for many, further development and an eagerness for progression is in the forefront of their minds. In this article, we will take a look at some of the opportunities that arise from becoming a DO when you want to learn more about and carry out research.

The immediate 'next step' for many newly qualified DOs is to upgrade their qualification from a diploma to a degree, which can be done through distance learning, just like with the FBDO diploma. The Vision Science BSc (Hons) degree is provided by ABDO College, working in conjunction with Canterbury Christ Church University (CCCU) utilising CCCU's Virtual Learning Environment.

Students are provided with extremely flexible study time, and are able to study anywhere and at anytime. There is a recommended completion time of 18 months, but an allowance of up to three years for the course. There are no travel or accommodation costs, no books to buy and no exams. The top-up course is instead comprised of assessments, essays and a workplace project. Upgrading the diploma to the Vision Science degree opens up further avenues for career progression, including teaching and lecturing at ABDO College itself. One person who can vouch for this is Alicia Thompson, director of professional examinations at ABDO. Alicia is currently

doing a PhD at Aston University, but needed at least a 2:1 degree classification to be accepted for it. She did a top-up degree with ABDO College and CCCU and, in doing so, discovered that the research skills she developed, along with learning about evidence-based practise, have been invaluable in the pursuit of her doctorate.



Alicia Thompson receives a Best Poster Award at the 2017 Children's Vision Research Society conference

Alicia was in discussion with ex-colleagues at Aston University when she was encouraged to turn her thoughts regarding paediatric dispensing into a PhD proposal. Her study focuses on the lack of frames designed for the facial topology of children. Alicia found herself frustrated that scaled-down adult frames simply didn't fit children adequately.

After putting together her proposal, she was interviewed by the research convener as well as her potential supervisor. Alicia is working on her PhD part-time, alongside her position at ABDO and is looking forward to submitting in 2019. She has received funding from ABDO to carry out her PhD, which is something that ABDO is looking to open up to members in the future for similar relevant projects.

Practical approach

If you want to embark on a PhD then an important first step is to formulate an original idea. Originality is the defining feature of a PhD and is key to securing approval when you present your proposal to the university. Once you have decided upon your original idea, you need to find an academic supervisor with similar research interests to discuss and finalise your proposal.

PhDs in Optometry and Ophthalmic Science can be carried out at Aston University, using the very familiar distance learning method. A vital stage of the application process is the actual presentation of the proposal itself, which involves providing evidence of your qualifications, providing details of

your supporting referees, preparing any supporting materials, and taking part in a phone or even face-to-face interview. It is down to the programme directors to



Gill Bickle, who's undertaking an MSc in Health and Wellbeing

consider your application and make the final decision to approve your proposal.

It is essential that you think about how your research project is going to be funded early on. This is something that you will need to discuss during the application process and there are a number of ways you can fund your PhD. You may have been offered sponsorship by the company, practice or establishment that you work for. Alternatively, you may be funding your studies yourself, since the qualification is a good investment for your future. As mentioned earlier, it is possible to gain funding from the ABDO Research Fund. It only takes an idea that ABDO considers to be worthwhile and relevant for you to get the support you might need.

DOs can also take a Masters as a 'next step'. The MSc in Health and Wellbeing at CCCU is open to DOs and is currently being undertaken by Gill Bickle, courses coordinator at ABDO College. Gill embarked upon the Health and Wellbeing MSc specifically with ABDO College students in mind. She says: "My main intention is to use this knowledge to help develop the dispensing programmes to include more topics on public health. This will allow students to explore ideas beyond the scope of High Street practice and see how we integrate into a multi-disciplinary team."

The MSc is a two-year part-time course. However, there is plenty of room for flexibility and Gill has studied part-time to fit around full-time work. It is not essential to have a degree to be accepted on to the course. Candidates can apply if they have professional registration to practise in health or social care. Once again, there are no exams

education. Of course, as optical professionals we are always learning and, with CET, our education and training is ongoing throughout our careers. But it is essential that at some point we apply our skills and knowledge. In the case of Andrew Price, he has found practice-based research and post-market clinical trials to be his calling.

Having been a DO since 1976, Andrew has been involved in a lot of different projects, working in different areas of optics, in many locations across the globe. He is an ABDO National Clinical Committee member, represents ABDO in a number of organisations, as well as being a regular contributor to *Dispensing Optics*. His most current undertaking is in post-market practice-based clinical trials of contact lens products and services.

Many of us are familiar with the promotional literature distributed by contact lens manufacturers and

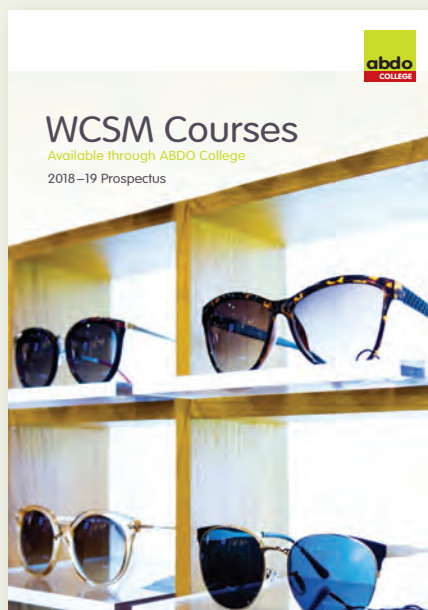
'My main intention is to use this knowledge to help develop the dispensing programmes to include more topics on public health.'

involved. Assessment is through written essays and reports, critical reflections, case studies, oral presentations and a dissertation. Details of all the postgraduate courses available at CCCU can be found at www.canterbury.ac.uk

Practice-based research

Not all 'next steps' are related to further

suppliers. It is so often laden with graphs and statistics pertaining to, as Andrew puts it, "big hairy trials that don't relate to normal practices on a wet Wednesday in Wigan". What Andrew aims to do is represent the small independent High Street optician, trialling products with real patients, within his practice. Companies are then



WCSM Courses prospectus

The WCSM Courses prospectus features the WCSM Courses currently available through ABDO College:

- Level 2 Optical Support
- Level 3 Optical Support
- Level 4 Diploma for Optical Assistants
- Level 4 Diploma for Optical Technicians
- Fast Track Technician Training for FBDOs
- SCQF Level 5 Certificate in Optical Care
- SCQF Level 7 Certificate in Optical Care

To obtain a copy of the WCSM Courses Prospectus, please contact the Courses Team at ABDO College on 01227 738 829 (Option 1), or email info@abdocollege.org.uk

able to present practitioners with genuine and real results.

Andrew has also carried out practice-based research for ABDO, for which he was able to acquire funding through ABDO's Research Fund. This further illustrates how a good and relevant idea is all you really need to gain funding for your project. In the case of the post-market clinical trials, payment from big name contact lens manufacturers is an extra source of income but, more importantly, research conducted within the industry helps to improve our quality of patient care. As Andrew says: "The trials and research all contribute towards the greater good in the optical profession".

It is not easy carrying out practice-based research or clinical trials. As Andrew explains, whilst it is well worth doing, time is often the biggest issue: "Carrying out clinical trials is much like DIY at home. It always takes longer than you expect it to. Ideally, you need a busy



Andrew Price in his practice, where he conducts research

practice, because recruiting patients to take part and then keeping them on for the entire trial period can prove difficult. Couple that with all the reports and paperwork involved and the trials can take months running into a year."

Steps to take – now

If you are inspired by Alicia, Gill and Andrew, there are some immediate steps for a newly qualified DO, which can be taken at ABDO College. Many students enroll onto the contact lens optician course as soon as they have qualified. The course is taught in much the same way as the FBDO diploma/degree, distance learning, with assignments and support from a personal tutor, and a block programme at the college itself.

Beyond contact lenses, there are numerous courses to help direct you onto a particular path or into a specialised field, such as the Low Vision Honours course, or the fast track Level 4 Diploma for Optical Technicians leading to the SMC (Tech) qualification. Again, these courses use the very effective method of distance learning and simply require you to be FBDO qualified. Details of all these courses can be found on the ABDO College website at www.abdocollege.org.uk

As you can see, it is no exaggeration to say that the opportunities for a newly qualified DO are vast and varied, whether it be through further education, or by applying your acquired knowledge and skills in your place of work. The 'next step' for you can be in any number of directions.

Rian Love

Courses coordinator for Optical Support Programmes

Rian Love recently became the courses coordinator for Optical Support Programmes at ABDO College. Rian is a SMC (Tech) qualified ophthalmic laboratory technician and dispensing optician with a first class honours BSc undergraduate degree in Ophthalmic Dispensing. In this article, you can find out a little more about him.



Rian Love

If you were looking for someone with diverse experience of the optical industry, Rian Love is well qualified. With more than a decade of experience, Rian has worked in a variety of companies with differing strategies and client bases but like many people, he entered the industry by chance. He says: "I was bullied at College and was wanting to leave but my partner, now my wife, said, 'Don't leave college until you get a job!' We had a mutual friend who was working for Specsavers. The business needed an office administrator, so I went in, interviewed and swiftly started the job." Rian liked working in optics but didn't feel an admin role was where he was best suited. He recalls: "The friend who

got me the job was moving to Australia, leaving a vacancy in the lab. I liked what they did in the lab, and asked if I could start as a junior technician. So they sent me on a couple of Specsavers training courses."

At this point Rian realised he wanted to know more. He explains: "I wanted to do the SMC Tech course but no-one else in the business had, so my employers weren't inclined to provide funding for their most junior technician to do it."

Going his own way

Rian was determined that this was the right next step so he took action. He says: "I emailed all the independent opticians in Dublin. I was prepared to self-fund but needed an employer's support." Rian successfully completed the SMC (Tech) qualification, and wanted to learn more.

He remembers: "At that time there was a downturn in the industry and the lab was cutting back to a three-day week. I was fortunate when one of the stores I glazed for asked for me two days a week in practice." Rian was getting practice experiences, but could see that the DO course was the logical next step. He sought an employer who would support him in this, and started on the

degree course with ABDO College in conjunction with Canterbury Christ Church University, while working in practice and in a lab.

After qualification, Rian got a position with City University, working in their Optical Appliance Testing Service (OATS) under the supervision of Henri Obstfeld. The facility was facing changes a year into Rian's time there, and Rian also wanted to return to Ireland. He says: "I was able to take on OATS and now run RPL Optics, testing and certifying eyewear including sunglasses and ready readers to national and international standards."

At the same time, Rian was also studying to become a distance learning tutor with ABDO College. He went on to tutor for the Worshipful Company of Spectacle Makers (WCSM), and has also acted as an examiner for the WCSM.

Rian now lives in Dunshaughlin and will combine his work at RPL Optics with his new role. He says: "As you can see from my career, I love optics and I love education. I think it is really important that everyone working in optics gets the chance to continue their education. Take a step back and look at all the different areas you can go into. The WCSM module system allows you to pick the modules that suit your practice, and you can use your optics knowledge to influence a better product."

He adds: "I want to help students feel supported. It's not that long since I was a student myself, and I want to use my recent experience in this role, adding to the extensive experience of the ABDO College staff."

Literary and architectural connections

If you have studied at Godmersham, home of ABDO College, have you found the beautiful house and grounds an inspiring place to study? If so, you are in excellent company. In the early 19th century, Jane Austen was a regular visitor to Godmersham, then home to her brother Edward and his family. Edward had inherited Godmersham from Thomas Knight, and his sisters visited regularly. These visits often lasted several months, during which Jane wrote letters describing shopping in Canterbury as well as the day-to-day life in the great house, and wrote parts of her novels.



The £10 commemorating the 200th anniversary of Austen's death, featuring Godmersham Park

Austen continued to work on several of her novels while staying at Godmersham. She drew on her experiences in Kent for her descriptions of her fictional grand houses, perhaps inspired by the view of deer feeding on the green slopes surrounding the house, by parties and quiet evenings after dinner, playing charades, reading, listening to music and talking with her family.

Jane Austen's novel *Mansfield Park* is said to depict characters and scenes from the village – and it has also been suggested that the house was the basis for Rosings, the home of Lady Catherine

De Bourgh in *Pride and Prejudice*. Visits to local friends and society occasions in the area all provided fuel for Jane Austen's imagination. She writes of life at Godmersham, *"We live in the Library except at Meals & have a fire every Evng ... I am now alone in the Library, Mistress of all I survey – at least I may say so & repeat the whole poem if I like it, without offence to anybody ... At this*

my Br Fanny & I have the Library to ourselves in delightful quiet ... Half an hour before breakfast – (very snug, in my own room, lovely mornng, excellent fire, fancy me) ... In another week I shall be at home – & then, my having been at Godmersham will seem like a Dream ... But in the meantime for Elegance & Ease & Luxury."

Spotlight on society

Austen's sister-in-law, Elizabeth, died in 1808, leaving Edward with 11 children, from 15-year-old Fanny to the baby Brook, so his sister's visits were particularly welcome. Jane developed a particular fondness for Edward's daughter Fanny who she wrote to regularly. Some of these letters are displayed at the Godmersham Park Heritage Centre (see resources).

Jane made up verses and told stories to her nieces and nephews too: *"She was the one to whom we always looked for help,"* writes a niece.

'... In another week I shall be at home – & then, my having been at Godmersham will seem like a Dream.'

present time I have five Tables, Eight and twenty chairs & two fires all to myself ... Yesterday passed quite à la Godmersham ... James and Mary are much struck with the beauty of the place ... The Comfort of the Billiard Table here is very great. – It draws all the Gentlemen to it whenever they are within, especially after Dinner, so that



"She could make everything amusing to a child...She would tell us the most delightful stories, chiefly of Fairyland, and her fairies had all characters of their own. The tale was invented, I am sure, at the moment and was continued for two or three days if occasion required – being begged for on all possible and impossible occasions."

Another niece, Marianne Knight, recalled, *"I remember that when Aunt Jane came to us at Godmersham she used to bring the MS. of whatever novel she was writing with her, and would shut herself up with my elder sisters in one of the bedrooms to read them aloud. I and the younger ones used to hear peals of laughter through the door, and thought it very hard that we should be shut out from what was so delightful. I also remember how Aunt Jane would sit quietly working beside the fire in the library, saying nothing for a good while, and then would suddenly burst out laughing, jump up and run across the*

room to a table where pens and paper were lying, write something down, and then come back to the fire and go on quietly working as before."

Buildings are very significant in Austen's work. The grand estates epitomise the social stratification of the day but the neo-classical architecture of the period and the books also signify values and ideals which resonate in Austen's work. It can be easy to forget how instructive and influential architecture is. It's certainly fascinating that architecture and literature has this aesthetic synergy but perhaps not surprising given that Austen's narratives revolve around the setting: the interior and exterior of houses as well as women.

The architecture of Godmersham seems to typify the solidity, symmetry, order and longevity that Austen's work valorises; values upon which all happy endings are built. So, when you are studying optics or ophthalmic lenses,

writing an essay or doing careful calculations, think of Jane Austen, sitting writing in the very same building, 200 years ago.

Resources

- Visit the Heritage Centre which opens on the first Monday of the month or by appointment: www.godmershamheritage.webs.com
- Elizabeth and Edward Austen Knight are commemorated in the church of St Lawrence the Martyr at Godmersham, on a large memorial on the wall of the nave and also in a stained-glass window in the chancel. There is also a memorial to Thomas and Catherine Knight, Edward's adoptive parents.
- Find out more about Jane Austen at the site of the Jane Austen Society www.janeaustensoci.freeuk.com
- Read more about where she lived in Jane Austen: Her Homes & Her Friends (John Lane the Bodley Head, 1923) by Constance Hill

Jane Austen was a regular visitor to Godmersham Park



Emma Fawcett

Combining work with study

In their final year, ABDO College degree students are all required to complete a dissertation which focuses on a research question of their own choice. Trainee dispensing optician (DO), Emma Fawcett, is about to take her final practical exams. In this feature, you can read about Emma and her research paper, "The effect on visual acuity following collagen cross linking performed on patients with progressive keratoconus".

Emma Fawcett is a trainee DO for the Mincher-Lockett group of opticians. She works for Malcolm Grey and Associates in Eccleshall, part of the same group. Like many people, Emma stumbled into the world of optics. She says: "I was looking for a full-time job, something that offered career progression. I had done a foundation degree in graphic design, but wanted a customer facing position, something that involved dealing with people. A job as a receptionist came up in 2011, and I started work in Stafford."

Emma worked in the Stafford branch for six years and has recently moved to Eccleshall. She says: "I didn't realise how many opportunities there were to progress within optics. I did the level 2 optical assistant course to obtain the WCSM qualification, then level 3, and then I took a year out for family reasons. I then started the dispensing opticians course. Learning on the job was the best thing to do, I felt it really meant that I was putting what I learnt into practice."

Once she had started to study the Ophthalmic Dispensing degree with ABDO College in association with



Emma Fawcett

Canterbury Christ Church University, Emma continued to enjoy combining work and study. She says: "I found the DO course very good. The tutors gave a lot of support to ease you in to the different topics, even though there was so much to cover. The lecturers were great, they went out of their way to be there if we needed it. I found the lectures, handouts and notes all clear and easy to follow."

Every course has its challenges, as Emma says: "I thought I was good at maths, I had got a B, but it was challenging. One of my supervisors, Ann Shrimpton, was very helpful. She had done the course relatively recently, which meant she could give me a hand. The way that they dealt with the topics was well spread across the years. Anatomy was very interesting. We learnt about the brain and nerves, a lot more than just the eyes, and more in depth than I first thought."

Low vision was a highlight of the course for Emma. She explains: "I liked low vision best, we don't do much in practice, so the course allowed me to learn a lot more and it made me feel a lot more confident. The town I practise in hasn't many low vision services, people tend to get referred elsewhere, but I was fortunate to get my case records. It gives me a lot of satisfaction helping someone. We have magnifiers and specs in-store that can help people and I'm always happy to advise people about them."

A family affair

Studying on block release can bring the students together in close proximity for an intense period of study and much more. Emma says of her fellow students: "I felt like we were like a family, we all got on and supported each other. We have an online group for support and I have made lifelong friends."

Emma's choice of topic for her final year dissertation was chosen for a cross-section of reasons. She says: "My topic was, in some ways, linked to

low vision. More than that, though, my boyfriend has keratoconus, a few of our patients do, and I wanted to build my knowledge about what could be done. I found there was a lot of research, but with small numbers in many of the studies."

causes an improvement in visual acuity [VA]. I didn't come across any research that reported decreased VA, nor many complications. Mostly, subjects showed a significant improvement in vision. One issue is differentiating between short-term and long-term. The

'I liked low vision best, we don't do much in practice, so the course allowed me to learn a lot more and it made me feel a lot more confident.'

Emma's research question focused on, 'The effect on visual acuity following collagen cross-linking performed on patients with progressive keratoconus'. She says: "Some of the research wasn't specific to visual acuity. And in other papers, subjects had been examined by different practitioners leading to variable consistency. More research is needed with consistent study processes."

short-term effects were a clear improvement for many, but over the years improvement lessened."

Emma will be taking her practical examinations shortly. She says: "After my exams are over, I would like to have a break. Once I qualify I want to work to gain some more experience. One of my supervisors has done the contact lens course and I'm open to other courses and further study in the future."

'I found the DO course very good. The tutors gave a lot of support to ease you in to the different topics, even though there was so much to cover. The lecturers were great, they went out of their way to be there if we needed it. I found the lectures, handouts and notes all clear and easy to follow.'

Discussing the results of her research, Emma says: "There is a lot of information suggesting that collagen cross-linking

I'm looking forward to being qualified and carrying on doing the job that I do because I enjoy it."



ABDO College prospectus

ABDO College specialises in distance and blended learning education for the optical profession. It is the only college in the UK devoted solely to the teaching of ophthalmic dispensing and its related specialist areas.

Offering a range of courses including access, foundation degree, diploma, degree, advanced and honours, ABDO College provides quality programmes leading to ABDO examinations and qualifications.

To obtain a copy of the prospectus, please contact the Courses Team at ABDO College on 01227 738 829 (Option 1), or email info@abdocollege.org.uk

The effect on visual acuity following collagen cross-linking with progressive keratoconus

By Emma Fawcett

INTRODUCTION

Keratoconus, a progressive condition, is clinically characterised by a conical corneal shape as a result of thinning of the central cornea. The main symptom associated with keratoconus is a reduced visual acuity¹. Spectacle correction and contact lenses can be effective in the management of keratoconus.

A fairly new technique used to strengthen corneal tissue by the use of riboflavin and ultraviolet A (UVA) is named collagen cross-linking (CXL)². The procedure involves administration of riboflavin sodium phosphate ophthalmic solution and projection of UVA light onto the corneal surface. The aim is to stiffen the cornea with no resultant loss of transparency³. Studies have suggested that CXL increases the number and diameter of collagen fibres, subsequently increasing corneal strength effective in slowing the progression of keratoconus⁴. But what effect does this procedure have on visual acuity?

It is the professional duty of each individual working in health and social care to provide up-to-date care by reviewing current research and developments relevant to their practice⁵. Application of an evidence-based practice approach through comprehensive research review, professional judgement and patient preference enables healthcare professionals to demonstrate best practice⁶.

Increased knowledge regarding the affect upon visual acuity following CXL could aid practitioners in their duty of care during management and when advising keratoconic patients about treatment options. The topic is of particular significance to dispensing opticians as they are often the primary source for patients to request advice from and, therefore, their knowledge has a vital role in determining the quality of information delivered. Effective management of patient expectations can lead to greater patient and practitioner satisfaction.

METHOD

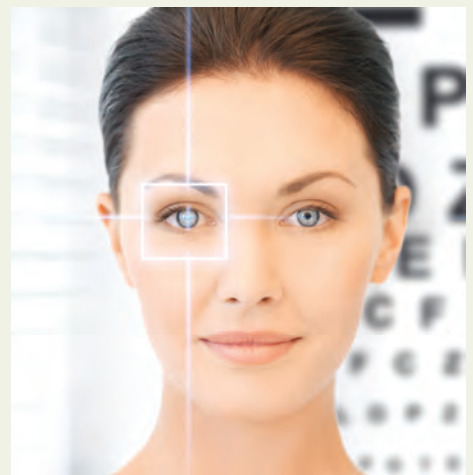
Construction of a mind map generated several areas of interest within the topic that had potential to be chosen for further research: keratoconus. Boolean logic enabled a more specific search strategy by utilising the presence of the words AND, OR and NOT to include and exclude information⁷. The use of the advanced search category available on most search engines proved to be an effective tool not only with the application of Boolean logic, but also to refine the search to acquire less dated research⁷. Therefore, the search was limited to include published information from 2008 onwards.

Systematic reviews, concise and rigorous in their search and critiquing approach, such as those undertaken by the Cochrane Collaboration, were favoured. Critical analysis took place assisted by a critical framework⁸ on four selected research papers. Examination of each piece was performed to assess individual quality by scrutiny of the validity and reliability of the evidence.

FINDINGS/DISCUSSION

Three of the four papers selected for analysis were review papers, the other being a randomised controlled trial (RCT). The RCT⁹ included a sample size of 480 eyes of 272 patients, with a maximum follow-up period of six years following CXL. The results analysed 241 out of the 480 eyes mentioned prior with a minimum follow-up period of six months. Best corrected visual acuity (BCVA) outcome was recorded in 142 eyes in year one, reducing to 66 eyes in year two and 33 eyes in years three, four, five and six.

Results showed an improvement in BCVA, greater than one line on the test chart ($-0.08 + 0.24$ (73.1 logMAR), by 53 per cent in the first year and 57 per cent in the second year. Each year following, up to six, stated a stability percentage decreasing with time but no improvement in BCVA. Two participants underwent repeated CXL due to complications. The focus of this particular study involved recording other results in relation to the long-term effects following CXL, such as astigmatism, not specific to BCVA.



DOs' knowledge of CXL is vital for keratoconus patients

Sykakis *et al*¹⁰ analysed three RCTs with a similar complete sample size, 219 eyes. However, only 119 had CXL, the other 100 served as a comparison. In regards to BCVA, the results concluded an improvement at one year of approximately 10 letters, two lines. However, the authors identified high risk of performance, detection and attrition bias, showing a lack of validity in the conduction of the trials. The evidence was deemed to be low in quality due to bias risk and small sample selection.

A more recent review by Mohammadpour *et al*¹¹ states: "CXL has shown to be efficacious in stopping the progression of keratoconus on a long-term basis". This statement was made following a review of several trials conducted on adult, paediatric and patients involved in CXL in an accelerated form. The studies included varied in date from 2003 to 2016. Adult sample sizes varied from the first clinical trial on human eyes in 2003, including 23 eyes, to a larger study including 142.

In the paediatric study, the largest sample selection reviewed comprised of 152 eyes of 77 patients, aged 10-18 years. Accelerated CXL, CXL with shorter treatment duration, was determined to be of no greater benefit than conventional CXL.

king performed on patients

During discussion regarding the efficacy of the clinical outcomes of CXL reviewed in long-term studies, the authors concluded the previous mentioned statement after mention of studies where BCVA showed notable improvement. The BCVA outcome for at least 19 out of the 24 studies listed showed an improvement in either Snellen line or logMAR decimals.

Mohammadpour, Heidari & Hashemi conducted the review, 'Updates on managements for keratoconus' later the same year¹². This updated review involved additional studies, including information about the country in which the trials took place, which had been absent in the previous review table. The sample sizes of the additional studies showed low numbers for sample selection and follow-up, the highest number of eyes involved reaching 325.

Only one trial, out of nine, listed in the table stated a stable BCVA following CXL. This particular study having been conducted as an uncontrolled trial in India, included 102 eyes. The results of the other eight studies revealed some improvement in BCVA for both short (from three months) and long (up to 72 months) follow-up periods.

The majority of information found in all four papers does not directly address the effect of CXL on visual acuity.

Further specialised research utilising larger sample groups would be beneficial in achieving more reliable results. The review paper which involved the most relevant discussion on BCVA results and inclusion of 38 studies¹⁰ summarised and deemed the published evidence to be low due to no data on individual life quality, lack of precision and high risk of publication bias. This review was the systematic review sourced from the Cochrane Collaboration and in the implications for research' section, a promising statement was made highlighting the fact that there are ongoing registered studies investigating not only the effectiveness of CXL, but also the modifications needed in the treatment procedure. This suggests that further research of higher quality is anticipated.

CONCLUSION

Overall, most of the studies indicate that CXL has a positive influence on visual acuity with a significant amount of results showing improvement following surgery. However, there is a lack of detailed discussion around this topic due to published reviews analysing a variety of results rather than a more focused, succinct analysis.

The majority of findings determined a BCVA improvement of approximately two lines on the Snellen chart within the first 12 months following surgery.

Although the sample selection size of most studies under scrutiny were quite similar and in the hundreds, the number of participants would still need to be increased to create a more legitimate reflection of the population. This would then provide more reliable results to be able to discuss within a practice environment and aid professionals in their duty of care.

Ensuring consistency when it comes to the surgical technique performed is crucial to be able to ensure uniformity. Variable techniques would lessen the quality of the evidence due to the likelihood of being influential on the final outcome. Therefore, it would be beneficial for future trials to be conducted by the same operator, both during initial surgery and follow-up appointments, for every participant to undergo the same surgical technique. The possibility of human error would need to be acknowledged. The credibility of the results would be improved by adopting this approach in future research.

In conclusion, further research into the short and long-term effects of CXL should be conducted, utilising larger sample selections to achieve more reliable results. More rigorous study would be beneficial to aid practitioner knowledge and confidence in advice and management provision. Additional factors should be considered and analysed in greater detail to provide higher quality educated outcomes in this specialised area.

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Want to do more low vision work?

Have you thought about developing your low vision skills? This is a growing area of need due to the aging population, and more LOCs/AOCs/ROCs are now recognising the need for a low vision pathway, with funded services. In order to meet the needs of people with sight loss, and at the same time build your own career, why not think about the Low Vision Honours course from ABDO College?



Take your low vision skills to the next level

Commencing this January, the Low Vision Honours course is your chance to develop an in-depth knowledge that can be put to practical use every day.

It is open to every qualified DO, and the majority of the course is studied by distance learning. Once you have registered, you are sent a timetable

and coursework and assignment questions to answer for each part of the course. You are allocated a personal tutor to support you throughout.

There are 23 units of coursework that you will work through, each taking one or two weeks. You then send your work to your personal tutor who will mark it for you and return it to you with feedback. As the course is at honours level, you also need to undertake additional research and read around the subject in order to gain a thorough understanding of the subject. In total, you can expect this coursework to take you approximately 20 hours per week and you will need to be disciplined to make sure you keep up.

Alongside the coursework, you also need to attend a four-day period of intensive study that will support you with your theory and practical studies and give you the chance to meet some of your fellow students. This is held at ABDO College in Godmersham, Kent, and it is a compulsory part of the course.

Gillian Smith leads the low vision course and she has answered some commonly asked questions about the course below.

Which case records will be required?

Before you take the practical examination, you will need to submit case records for 15 patients, which should cover a mix of pathologies and patients of different age ranges. They don't have to be 15 different pathologies but a reasonable mix and cannot all be for instance AMD.

Patients do not have to be certificated and registered (some people choose not to be), but their vision/VAs must fall into someone's definition of low vision. You must have had at least one follow-up assessment appointment with each patient, with an interval of at least three months between assessments.

When are the theory exams sat?

The theory exams are usually at the beginning September each year. The theory and practical exams usually run on consecutive days.

When is the block release?

At present the Low Vision (Hons) block dates are pencilled in as xxxx and ABDO College Operations will be able to confirm the dates with you on application for the course.

Do I need to be employed on a permanent basis to do this course?

You do not need to change your working habits to do the course, but it is an advantage to get as much hands-on experience of low vision dispensing as possible.


After taking the Low Vision Honours course you should be better equipped and more confident to dispense low vision aids to complex pathologies which cause low vision as well as those more frequently encountered – making you a more complete and competent practitioner. Where that takes you is limited only by your imagination and drive.

Applying for the ABDO College Low Vision Honours course is the ideal next step for anyone with the ABDO Level 6 Diploma in Ophthalmic Dispensing (FBDO) who wants to take their low vision practice to the next level. You can find more details, an example timetable and application forms at www.abdocollege.org.uk/course/low-vision-honours, email info@abdocollege.org.uk, or call ABDO College on 01227 738 829 for more information.

There are 23 units of coursework that you will work through, each taking one or two weeks. You then send your work to your personal tutor who will mark it for you and return it to you with feedback.

ABDO College on social media

ABDO College is now active on social media. You'll find news about current and future courses, and everything from dates of manufacturer visits to application deadlines and revision tips. Do like, follow, share and invite colleagues:

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 www.linkedin.com/company/the-abdo-college-of-education/



FBDO: what happened next

Hundreds of students are about to receive their well-deserved FBDO and join the dispensing optician community. Many will be hungry to continue the upwards career trajectory that the course has brought about. And if you are one of the other 6,000 or so already registered DOs, you may be reaching a stage where you are looking for that next step or new challenge in your career. Steve Hertz caught up with some of the ABDO College 'Class of 2016' to find out where they are now and illustrate some of the opportunities that are available to the entire DO family.

Having moved from a large multiple, to a successful family-run independent, and then making the trip back to become an employee of ABDO College in Godmersham earlier this year, I'm no stranger to changing roles 'post FBDO'. Each move has been thoroughly rewarding and has led to daily opportunities to learn new skills and meet new people. I would encourage all of my DO colleagues to never presume the doors that our qualification opens, are ever shut. As demonstrated in less than two years by these ABDO College graduates, there are more options available than you might think...

Going independent

Claire Gaston completed her studies at a large High Street multiple but has since moved to a smaller independent practice just outside Belfast. "During my studies, I had the opportunity to mix with and speak to people already working within the independent environment," says Claire. "After eight years in the



Claire on the red carpet at the Northern Ireland Practice of the Year Awards

multiple sector, the freedom and new challenges that small business life brings really appealed".

The switch from multiple to independent practice presented a number of challenges including an increase in pressure at busy times; however, Claire is very much enjoying her new job.

"I love the freedom to choose which combination of products will really benefit my patient. The opportunity to learn new skills involved in running a business means I am always learning. No day is the same. I moved 40 miles from my previous store, from three testing rooms to one, a large city to a market town, and I couldn't be any happier with my career".

Industrious move

Helen MacIver has followed a very different route since qualifying. She has stayed with the same High Street multiple, but has moved into a different field with her current post of assistant lens buying manager. Within her company, Helen found lots of opportunities in a variety of support roles which, she says, have enabled her to broaden her industry knowledge. Every day she combines her knowledge and understanding around lenses and mathematics gained from her FBDO qualification along with years of experience with the public "to support practices and shape our lens portfolio to benefit our patients".

Having joined the company as an optical assistant, Helen has continually worked her way up through the organisation and in her new role says she can now "use my clinical knowledge to help guide our business decisions." Helen is a great example of our profession having a positive influence at the heart of a massive organisation and shows what DOs can achieve if opportunities are sought out.

Onwards to optometry

In contrast to the career routes taken by both Claire and Helen, Katie Cargill has taken up the challenge of further education by training to become an optometrist. "I really enjoyed the contact lens, low vision and pathology elements of the DO course, and while there is

In order maintain her skills and generate an income through her studies, Katie still works as a DO at the weekends and through the holidays. "Good time management is vital for me as I still spend a lot of my time away from university in practice," Katie explains. "However, I can often learn from interesting cases

been using is communication," Katie believes. "It sounds like an obvious one but having prior experience of working in practice with other practitioners and patients has been great when it comes to clinics."

Follow your passions

These are just three examples of the great career paths being taken by DOs all across the country. We often get so caught up in daily practice life that it can be easy to forget how that original drive and will to join our profession felt, often putting ourselves and the potential opportunities that are out there to the back of our minds. It is a great belief of mine that spending time to consider your current situation, what you have achieved already, the great work you carry out every day to improve patients' lives, as well as the passions and skills

'It sounds like an obvious one but having prior experience of working in practice with other practitioners and patients has been great when it comes to clinics.'

further education and training available to become more involved in these as a DO, I felt that I would be best placed as a practitioner if I trained in optometry as well."

The path from DO to optometrist is not a well-worn one, with many graduates choosing to remain in their original speciality. Katie says: "Originally I didn't do the optometry course because I didn't have the right qualifications, and then once I qualified as a DO I almost carried on as I was because it was nice to be earning money and not studying for a while. Four more years of studying and living on a pre-reg wage wasn't necessarily that appealing. However, I do also think that it really depends on what you want to be able to do as a practitioner. DO and optom are very different roles and I would definitely miss dispensing if I was told I had to test all the time and was never allowed on the shop floor again."

the optometrist spots in the clinic first hand, which will be very useful as my studies progress".

Many of the skills learnt from her role as a DO have also proved invaluable. "I think that the most useful skill that I have



Helen making a difference in her new role as assistant lens buying manager



Multitasking taken to a new level: Katie works as a DO in her spare time whilst studying optometry

that inform your future aspirations should be seen as one of the most important investments you can make as a professional. It is easy to get swept along by the hectic lives we all lead but five minutes dedicated to your own thoughts and ideas could make the world of difference to your career satisfaction.

If you got a real buzz from helping that partially sighted patient to be able to read the newspaper again, why not consider enhancing your expertise in the field by training in the low vision speciality? Fancy influencing the bigger picture? Working as part of your local optical committee can give you an opportunity to mould the way our patients experience eyecare in your area.

Do you get a kick from coaching more junior colleagues in the skills required to give great care to our patients?

Maybe there is a training role within your company, or look at the options with your local DO course providers for a more structured approach. I know of a particularly good College down in Godmersham if anyone would like advice on teaching as a career...

These questions can go on and on, however, if the answer at the end of your considerations is, "I am really happy

where I am," then that is a great situation to be in. The time invested in yourself to come to that conclusion should lead to a much greater satisfaction each day and an increased awareness of the great opportunities that are there.

As Claire quite rightly states: "Progression is a journey for you as a person, not for what others see as a step up or down. It should be decided by you, for you. Don't be afraid to explore different avenues. Have a clear idea of your true passion and follow it."

'Progression is a journey for you as a person, not for what others see as a step up or down. It should be decided by you, for you.'

Find a course for you

ABDO College offers courses for qualified DOs in the specialities of contact lenses and low vision. Those with the FBDO qualification can also now 'top-up' their diploma to a full degree level BSc Hons by completing the vision science distance learning programme. This course does not contain any examinations.

For full course details and guidance, please visit www.abdocollege.org.uk or call the courses team on **01227 738829**.

ABDO also offers careers advice and guidance through the new Business Support Hub, available within the members' area of the ABDO website. Experts and mentors in their fields can answer any queries you may have. This is a free resource available to members so be sure to check it out.

Have you or one of your colleagues recently changed career path and would like to share the story? Has your practice recently changed its customer journey for the better? *Re:View* magazine would like to feature more contributions from members in future issues so please contact Antonia Chitty by emailing achitty@abdo.org.uk

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Develop your professional skills

Low Vision Honours Course

An opportunity to develop your professional skills and help others

Due to changing demographics the demand for specialist low vision services is steadily increasing. By enhancing your low vision skills you can greatly help others, which is both valuable and extremely rewarding. The Low Vision Honours Course includes the theory and practical aspects of low vision consultation and fully prepares candidates for the ABDO Level 6 FBDO (Hons) LVA examinations. Distance learning assignments are complemented by a short block release at ABDO College to reinforce practical skills and routine.

- Course commences: January 2019
- Method: Blended learning
- Entry requirements: ABDO Level 6 Fellowship Diploma in Ophthalmic Dispensing (FBDO) and GOC registration
- Duration: 25 weeks
- Block release accommodation can be provided

Application deadline: December 2018

For further information and application forms for this and other courses, or to request a copy of the ABDO College Prospectus, please contact the ABDO College Courses Team on **01227 738 829 (Option 1)** or email **info@abdocollege.org.uk**

ABDO College Operational Services, Godmersham Park, Godmersham, Canterbury, Kent CT4 7DT

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