abdo COLLEGE

Re:View

Keeping excellence in your sights | June 2024 | Issue 47

Excellence honoured

Recycling expanded

Workshops success

Myopia research on spectacles and pharmaceuticals

Marking milestones aplenty

The Graduation and Prize Giving Ceremony is the highlight of the College's calendar and the last event was especially gratifying as our founding principal, Jo Underwood, was honoured for her many years of outstanding service. The award was a surprise for Jo but is richly deserved as she always goes above and beyond in all the work she does for us. We send our congratulations and our heartfelt thanks.

The ceremony is always such a joyous occasion as graduands celebrate the culmination of years of their hard work with their family and friends. Canterbury Cathedral is a sumptuous setting, a worthy backdrop for the pictures that capture those treasured memories and are now adorning walls and shelves for years to come.

As well as celebrating the successes of the past, this edition of *Re:View* looks to the future, with unique insight from the College principal which includes a major announcement regarding the College moving closer to becoming a training provider for apprenticeships.

I'm convinced that the apprenticeship route to qualification would drive an increase of dispensing opticians and significantly reduce the current shortage in our practices. This would benefit the public, ensuring that their spectacles are dispensed by an FBDO-qualified dispensing optician.

In this edition we remember recent events, showing how the Godmersham team was out in force at 100% Optical to highlight the training offered for all levels of practice staff. The College always strives to make education engaging so we also highlight the first visit by Rodenstock UK to Godmersham when students were given firsthand experience with the latest technology in the B.I.G airstream.

It was very informative visit and lots of fun, additionally giving food for thought on the career opportunities in the optical industry that many students had not considered before.

Clive Marchant FBDO
Chair of trustees

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Be inspired in your career choice

Recycling waste contact lenses

The College has joined the Acuvue Contact Lens Recycling Programme which means that the College's waste contact lenses, empty solution bottles, plastic film and pods now get recycled.

The national recycling programme, in partnership with TerraCycle, has collected over 11 million pairs of contact lens blister packs and foil covers since its launch in 2019.

College technician, Mark Turner, said: "We learnt about this scheme thorough one of our students attending on block whose practice takes part and believed this would be useful information to pass on to other students.

Students Harley Andrews and Antonia Sanderson using the new contact lens recycling box at the College

"It was easy to join the scheme and I think it is a thoughtful and productive way to use and recycle our resources further, as we already split our cardboard and plastics."

The national initiative also allows contact lens wearers to drop their contact lens waste off at their nearest participating practice. More information on participating in the scheme can be found on **www.acuvue.co.uk/recycle**

First optical assistant workshops open to all in the profession are a success

ABDO College has successfully opened its Optical Assistant (OA) Practical Skills Workshops to all sector colleagues, not just those studying on the OA training programme.

The first two all-day workshops took place on 13 and 14 March at the ABDO National Resource Centre in Birmingham.

The College's courses coordinator for optical support programmes, Rian Love, said: "This workshop course underpins basic repair and adjustments that are vital in day-to-day practice, as well as the basics of how to interpret a prescription to best guide frame selection. In addition, it offers great insight into how our more vulnerable patients may experience the world with simulation spectacles, which students have always found a beneficial experience.

"I am delighted that we are offering places on this workshop to a wider audience, enabling better patient care and understanding to everyone."

The workshop sessions are specifically tailored to the OA role and enable students to learn basic frame repairs and adjustments and discuss differing patient scenarios with their possible solutions.

The students also get to experience simulations of the visual symptoms suffered by patients with common eye diseases or conditions and they also learn about the common 'red eye' conditions and who can help support those patients in practice.

College adviser and founding principal, Jo Underwood, teaching at the first Optical Assistant Practical Skills Workshop for all held in Birmingham

ABDO College head of operational services, Steve Hertz, said: "The practical skills workshop has been a key part of our optical assistant course since its launch. The feedback has been consistently positive, and we are now pleased to offer this valuable and enjoyable day more widely."

Workshop presenter, Jo Underwood, College adviser and founding principal, said: "It is always refreshing to see how many employers clearly value their optical staff and send them on these short courses.

"It is a delight to see that the delegates fully involve themselves in the sessions, and how much knowledge and skill is available and shared among the groups. The sessions combine a mixture of practical workshops, seminars, peer discussions and simulation labs.

"The delegates always seem to have an enjoyable day, share their knowledge among each other and say how valuable the day has been."

Paediatric fitting in the frame

Millmead Optical has donated a full set of its Star Fit Lazer Junior frames for students to use in their paediatric frames fitting classes. Pictured is lecturer Callum Wills highlighting the benefits of a correctly fitting frame to students.

Celebrating student achievements and announcing a major new milestone

By ABDO College principal, Nina McDermott


Nina McDermott

Having joined the College full-time in January, my first few months have been packed with events and opportunities to get to know the College and the optical sector. This has helped me really understand how ABDO College can add value to the sector and support it in being future-facing and resilient.

Our mission is to advance the profession through the provision of high quality, innovative education and training. Our aim is to deliver sector-leading education as the specialist training provider of choice. Our focus in the first part of the year has, therefore, been on how we can achieve our aims.

From our optical assistant courses through to our FBDO diploma and onto our contact lens courses, it's a privilege to be able to see and hear about our students' development and achievements. A highlight for me was our recent graduation ceremony, where we celebrated the success of our students.

Apprenticeships approval

There has been a lot going on at the College, from apprenticeships to employer engagement and the General Optical Council (GOC) inspection. Following the Department of Education approval to open up the FBDO diploma to higher level apprenticeships, I'm delighted to say that our application to be a recognised apprenticeship provider was successfully approved in early May. This is a key milestone for the College and we look forward to working with employers and learners on this new sector offering.

The sector as a whole is awaiting GOC approval to run apprenticeships and that will determine when apprenticeships can start. We hope we are able to welcome our first apprentices in September, subject to GOC approval for the apprenticeship programme.

We are planning to run the FBDO apprenticeship diploma alongside our traditional routes to qualification. This means we can continue to meet student needs from a variety of backgrounds, as well as meeting the evolving needs of employers.

Having met a wide group of employers, we've also taken on board their feedback as to how they would like us to evolve our diploma programme. We're starting with some changes to how we deliver our block teaching, moving to shorter blocks for our first and second years from September and then for our third years from September 2025.

We are aligning this with significant changes to the syllabus and delivery, as outlined in the GOC's education strategic review (ESR). This will give us a good balance of in-person and online teaching in a way which meets both student and employer needs and enables us to be forward-looking in our teaching approach.

We will be asking for further employer feedback on updates they'd like us to consider across all of our programmes in an upcoming employer engagement survey. I look forward to hearing back from employers.

Finally, we welcomed the GOC to the College in February to review our FBDO and degree programmes. It was a genuine pleasure to welcome an engaged GOC panel to the College and to hear their questions, reflections and insights.

We are awaiting our formal report back from the GOC, but our informal feedback was both positive and constructive. It also showcased for me how passionate so many parts of the sector are about lifelong learning and the value placed on this. That can only be positive news for the College and the profession moving forwards. I very much look forward to supporting the College on the next stage of its exciting development.

Honouring excellence in an historic landmark

The founding principal of the College, Jo Underwood, has been presented with the Association of British Dispensing Opticians' (ABDO) medal of excellence in recognition of her outstanding service and commitment to the Association.

The surprise award was made by ABDO president, Daryl Newsome, at the ABDO Graduation and Prize Giving Ceremony at Canterbury Cathedral, (pictured on the cover), following a citation speech delivered by ABDO head of examinations, Mark Chandler.

In 2000, Jo helped to establish the College as its principal, a role she held for 21 years before retiring in 2021. Jo continues to teach at the College, where she brings a wealth of knowledge and experience.

On receiving her award, Jo said: "I am honoured and delighted to receive this award for things I love, and have always loved, doing."

Jo has not only taught and examined in the UK but also in Zimbabwe, the Bahamas, Singapore, Greece, Malaysia and India.

Giving 100 per cent to celebrate all things optical

The College team was there on the stand to support the 10-year anniversary 100% Optical in London which saw a record-breaking 11,725 attendees flock to the UK's largest optical event in February.

A busy time on the stand

Building and bookshop administrator, Justin Hall and his wife, Paula Hall, senior courses administrator

Head of operational services, Steve Hertz, on the stand

***Re*:*View* magazine in the spotlight**

ABDO chief executive, Alistair Bridge

The three-day celebration of all things optical showed a 10 per cent year-on-year increase on its previous record attendance and featured 100 hours of free CPD content, as well as dedicated areas for contact lenses, independent eyewear designers and ophthalmology.

The College bookshop featured on the stand, with free postage offered so that customers did not have to carry their purchases around at the tradeshow.

"It was much busier than I thought it would be and I would say busier for the College than last year," said senior courses administrator, Rachel Blazyca-White.

"We had a lot of ABDO members and non-members coming to the stand," she added. "There were lots of queries regarding the diploma and optical assistant courses and I would not be surprised if we get a couple of students at least from the show.

"The books always seem to go down well, and we took quite a few orders. It was a busy three days for the College."

Building and bookshop administrator, Justin Hall, said: "The event is always a lovely time to meet some new and prospective students, and a chance to catch up with some familiar faces, plus a very good chance to discuss further business opportunities. The event was, as in previous years, a successful and rewarding experience."

Next year's 100% Optical is on 1-3 March 2025 at ExCeL London.

Streaming in biometric education at ABDO College

The first of two educational B.I.G Vision airstream events was held by Rodenstock UK at ABDO College in March to teach students about the latest technology which recognises the importance of biometrics for precision vision correction.

College lecturers Callum Willis and Emily Lawrence, left, with students and College technician Mark Turner, right

Rodenstock UK's head of professional services, Andrew Copley, told students at the first event that the standard values of most lens manufacturers only suit two per cent of eyes, leaving 98 per cent of progressive lens wearers with spectacles that do not fit their eyes precisely.

Mr Copley explained that Rodenstock aimed to remove as many assumptions as possible and was the first company to measure the individual eye, developing its pioneering DNEye Scanner to capture thousands of relevant measuring points. Combined with the standard prescription values, the unique biometric data flows directly into the production of the patient's progressive lenses to create their Biometric Intelligent Glasses (B.I.G).

At the first event up to 25 third year FBDO students got to experience the technology for themselves in the American travel trailer and in the College's orangery, with the eye dimension scanning often revealing surprising results such as hitherto unknown 'nighttime myopia'.

"It was great to meet some of the students at ABDO College and to introduce them to some of the Rodenstock team," said Mr Copley. "The enthusiasm of the students and their willingness to learn was great to both see and experience. We hope they all enjoyed their afternoon as much as we did."

College Principal, Nina McDermott, said: "It was wonderful to welcome Rodenstock to the College and a great example of bringing to life what our students are learning with us. Our students were wowed by the visit."

The inaugural airstream event was such a success that it was repeated at the College in April and students will also be visiting Rodenstock UK's headquarters in Dartford for an educational lens lab tour later in the year.

DNEye Scanner screening in the College orangery led by Rodenstock UK's DNEye consultant and trainer, Sarah Selby, a former College student

Supporting Vision Care for Homeless People

The College has donated equipment to Vision Care for Homeless People. The six ABDO frame rules, six ABDO College branded lens marking pens and six ABDO College lens cloths will be used by volunteer practitioners at the charity's new clinic in Edinburgh. The new facility marks a double milestone as it is the charity's tenth clinic and the first one in Scotland.

An evaluation of pharmaceutical and spectacles intervention for myopia treatment in children aged four

By Alexander Cummings BSc(Hons) FBDO

INTRODUCTION

Myopia is the most common correctable visual impairment in the developed world in adults and children (Rudnicka *et al* 2016). More significantly, the critical period of myopia progression (MP) is among children between the ages of six to eight (Hensch and Quinlan 2018) (Qian *et al* 2021) (Wang *et al* 2021).

This rising public health issue presents risks of possible vision loss in later life and the development of other serious ocular conditions (Flitcroft *et al* 2019). However, despite a plethora of new information in the public domain and several well conducted studies (Gwiazda 2009), there are no standard protocols for myopia management in the UK (Tone *et al* 2020).

The objective of this research is to evaluate current interventions of myopia management (MM), with particular emphasis on pharmaceutical intervention. This independent study will identify key treatments, comparing meta-analysis studies to evaluate their effectiveness.

METHOD

Optical research is science-based and likely to approach questions through a positive paradigm to prove a hypothesis. However, due to the personal nature of visual experiences, and results depending on responses, an element of interpretative paradigm exists (Proofed 2023). For this independent study, the methodology used is a review of literature, which is an accepted stand-alone technique. Search parameters were used to ensure the literature was of academic quality and included a range of mixed methods (Cottrell 2019). A critical framework was chosen to analyse and scrutinise the findings (Ridley 2012).

The methodology was predominantly quantitative, in that the journals used were primary studies or narratives that summarised quantitative studies. For researchers to appraise, analyse and evaluate information coherently, clearly identified methods and systems are needed. This includes meta-analysis, where results from several studies are combined to increase the sample size and strength of results (Ridley 2012). Studies that used systematic reviews, such as The Cochrane Method

Credit: Valeria Blanc

(Cochrane 2011) were prioritised because, in health care and policy, it is a recognised and trusted format.

Ethical considerations are imperative in health care research (Hickerson 2011) and were included in the search criteria. For this study, the primary ethical consideration is a child's rights regarding participation.

FINDINGS

Three research papers were reviewed. Contained in Brennan's (2020) meta-analysis, Cheng *et al* (2016) produced the following study reviewing the axial length (AL) of children aged between eight to 12-years-old inclusive, measured at baseline. The findings showed that the untreated subjects had further elongation of the globe compared to the treated subjects.

The Walline (2020) study was a meta-analysis using a randomised control trial (RCT) which assessed effects of interventions, such as pharmaceutical agents, contact lenses and spectacles, slowing the progression of myopia.

Under corrected prescriptions on average went up by -0.15D more than fully corrected single vision lenses (SVL). It was noted that the AL of the eye increased by 0.05mm with under corrected spectacles. Multifocal lenses, such as bifocals and personal progressive lenses (PPL), had little effect on slowing the progression of myopia, progressing at -0.14D compared to children wearing SVL (Walline 2020).

Yam *et al* (2023) presented the results of a two-year randomised, placebo-controlled, double-masked trial conducted in China, where 474 nonmyopic children, aged four to nine-years-old, with cycloplegic spherical equivalent between +1.00D to plano and astigmatism less than -1.00D, were included. The results of this study did not conclude whether this represented a delay or prevention of myopia progression.

DISCUSSIONS

A comparison between interventions available, effectiveness and identification of potential treatment protocols was undertaken. Yam (2021), Ruiz-Pomeda and Villa-Collar (2020), Galvis *et al* (2016) stated that a dosage of atropine at 0.05 per cent was most effective at reducing the progression rate of myopia in children aged four to nine compared to spectacles or contact lenses (CL). Further research conducted by Chia, Lu and Tan, (2016) argued that a lower percentage of atropine at a dosage of 0.01 per cent for an extended period, changed the axial length and spherical refractive power, noticeably decreasing visual side effects compared with higher doses.

It was argued by Brennan (2021) that atropine did not affect the axial elongation of the eye, but instead influenced the refractive components, slowing the progression of myopia.

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While it was argued that atropine drops (AD) were effective at slowing the progression of myopia (Walline 2020), each study stated that more research was needed to compile a larger set of data for at least two years (Brennan *et al* 2020), (Yam 2021), (Walline 2020). AD were instilled nightly and the effects recorded two years from the start date. Compliance of young children would be an ethical issue and potential barrier with this method, with dosages being missed, or children not wanting the drops to be instilled (Wang 2015). Comparing results with SVL, of which results were noted six months after dispensing, this method is less invasive and ethically moral (Jones et al 2019).

Research has identified complications where patients are given a higher dosage of atropine, suffering with a rebound affect once the atropine had stopped being administered (Chia *et al* 2015). The children who were administered a smaller dosage had a smaller increase of refractive and axial myopia (Lee *et al* 2020).

Additionally further limitations had been identified once the treatment had taken effect. There was no way to correlate and see if a single eye would have become more myopic, or if it would have settled without progressing further naturally without treatment (Walline 2020).

Brennan (2021) condensed numerous studies to identify a common solution to MM. A conclusion was drawn stating that there was insufficient evidence (Dovile Simonaviciute *et al* 2023) to support any method of MM confidently but did agree with Walline (2020) that AL should be the main method of identifying shifts in myopia progression.

Refractive error can be subject to inconsistencies due to the method in which the refractive component was found (Brennan *et al* 2021), as such Brennan *et al* (2021) focused on axial length compared to refractive error. Myopia can induce change to refractive components of the eye, independent of axial length and therefore refractive error is not always a suitable index to track progression of myopia, with atropine and orthokeratology being susceptible (Sun *et al* 2015).

Brennen *et al* (2021) argued that axial elongation was the principal candidate for myopia worsening, which is independent from refractive error. Ruiz-Pomeda and Villa-Collar (2020) discussed both axial and refractive secondary myopia, with axial being the most prevalent. Powell (2023) stated that the most effective way to assess the stabilisation of myopia would include undertaking cycloplegic autorefraction and keratometry to provide an estimation of axial length.

Defining success in each study was difficult when the definition and measurement of clinical success was not standardised (Roberts *et al* 2011). Predictive markers are needed to establish identification of patients that are likely to progress at a fast rate, to formulate a set of criteria to standardise different studies so true comparisons can be made.

There is no standardised procedure for myopia management in the UK (Tone 2020). The College of Optometrists (2023) stated that myopia should be managed by orthokeratology, daily CL's or spectacle lenses, with no mention of AD (www.college-optometrists.org 2022). It is at the optometrist's discretion which method of management to advise the patient (Miller 2018).

Contact lenses are a safe method of MM, with a low chance of serious adverse effects, with correct consultation and management from the optometrist regarding hygiene and care of the lens, children can manage CL wear effectively (Koffler and Sears 2013). AD is considered the main treatment in southern Asian countries, but not in non-Asian countries.

Due to limitations on drug licensing, it is difficult for optometrists to get atropine in practice as it is a prescription-only medicine (POM) in the UK (NICE 2023). The side effects of atropine are serious if the incorrect dosage has been administered. These would include acute angle glaucoma, especially in children with dark irises. Ophthalmologists in hospital can use atropine, but only with the correct training on dosage and counteraction of side effects (NICE 2023).

With atropine showing the most impressive results throughout varying studies (Walline 2020), (Yam 2023), (Brennan *et al* 2020), the use of atropine for myopia management in the UK is still limited, with 0.5 per cent and one per cent being supplied by ophthalmologists, but only for mydriasis, or to relieve swelling or inflammation of the eye (NICE 2023).

A combination of atropine and spectacle lenses was noted by Holden (2015) as a possible effective combination method of slowing progression. However, Kaymak *et al* (2022) stated there was no change with the spectacle lenses, with or without atropine. Spectacle lenses were dispensed, and the effects monitored six and 12 months after by an ophthalmologist consultation appointment. It could be argued that these effects of spectacles intervention are noticed quicker compared to AD, based on findings from the three main studies used (Gong *et al* 2017). Lawrenson *et al* (2023) stated that contact lenses and spectacles' effect at slowing myopia was uncertain and there was insufficient information on unwanted side effects.

Huang *et al* (2016) stated that treatment effects of atropine in a high, medium or low dosage, compared with the placebo group, or single vision lens, yielded better results and the high dosage was most effective. However, it was argued that dual therapy in the form of atropine and spectacle lenses significantly slowed the change in axial length of the eye (Kaiti 2022).

CONCLUSION

Throughout this study a common theme emerged, that there is no standard definition and no defined methods, tests or industry agreed research framework for myopia. The relevance and impact of this on the practise of the dispensing optician is that there are no common practice guidelines.

Currently, there is no conclusive evidence to support any one treatment protocol. In addition, significant variations in treatments exist across the world, unsupported by a standard protocol. However, atropine is cited repeatedly as a successful way of treating myopia, but without regulation and licensing, atropine cannot be administered in UK practices.

Holden (2015) reiterated the urgency of the myopic epidemic, projected to affect 50 per cent of the world's population in the next four decades. Policymakers, governments and researchers need to prioritise strategies and early myopia control (Holden 2015).

For article references, visit
https://abdocollege.org.uk/references/

Making a positive difference to people's lives

In their final year, ABDO College degree students are all required to complete a dissertation which focuses on a research question of their choice. In this feature you can read about Alexander Cummings and his research paper, 'An evaluation of pharmaceutical and spectacle intervention for myopia treatment in children.'


Alexander Cummings

Alexander's interest in optics began at school where he enjoyed physics and biology. "As a child my eyes were tested routinely, and I always found the appointments interesting and wanted to find out more so I chose to gain work experience at an independent opticians in my town," he explained.

Following work experience, he secured a part-time, and then full-time position at the independent. "I realised that I wanted to make optics my career and undertake further training so I applied to Specsavers as I saw that it offered a wide range of roles and an in-house training programme."

Alexander worked as a full-time optical assistant in a busy store with 11 clinics and a widely experienced group of staff. During the first two years he learnt the fundamentals of the role and became a team leader.

He enrolled on the BSc (Hons) FBDO programme which meant completing a degree alongside the diploma, to get a combination of the two qualifications at the end of the three years.

Alexander's first year was held online due to the pandemic and so his first experience of the College was a three-day course which covered the practical exams that he sat in the first year. "When I arrived at Godmersham I was struck by the grand architecture and wonderful grounds. It was a brilliant setting to study in," he reflected.

Focus

Alexander enjoyed being away for four weeks of the year at Godmersham as he was able to focus on the work entirely and to meet others who shared his interests.

"The most challenging part was the time management, studying for exams, completing case records, weekly assignments and degree work all at the same time," he said. "However, on reflection, I now have well-developed time management skills and can prioritise tasks based on urgency while remaining calm.

"As the course progressed, I adapted and honed my skills," he added. "I became very organised, planning ahead and plotting the workload out in advance on a planner. I soon learnt the tasks I found easier and those that required more time so was able to allocate my time more appropriately. I also ensured that I took the breaks between terms to rest and recuperate."

Alexander's research was inspired by the prevalence of myopia management in practice. "At the time of writing my study my practice had just released the MiYoSmart lens. I had heard other colleagues discussing myopiac management, as well as peers at the College, and I wanted to educate myself further to give the best care."

He undertook a literature review of three academic studies. His conclusion was that there are no standard methods of myopia management, or agreed common practice guidelines, and there is no conclusive evidence to support any one treatment protocol.

Alexander is now a qualified dispensing optician working at Specsavers Bedford Fairfield Park. "The thing I enjoy most about my job is interacting with people and making a positive difference in their lives," he emphasised. "I enjoy combining my scientific interests with practical outcomes for others.

"For anyone thinking of completing the course I would say go for it. Take it one step at a time, and research the next step carefully," he advised.

"If you are passionate about optics, there are a number of pathways available and a wide variety of roles that can result in a worthwhile and interesting career," he concluded.

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