abdo COLLEGE

Re:View

Keeping excellence in your sights | June 2019 | Issue 36

Teaching success in Australia

Childhood myopia research review

Top tips for maths success

Summertime and the livin' is hectic

It's hard to believe that we are already halfway through the year and, as we approach the summer solstice, it's a chance to reflect on what a great year it has been so far for ABDO College, with even more exciting developments ahead.

The year got off to a flying start, with the College having its own dedicated stand at 100% Optical in London. It was an exciting milestone and our launch of a new College video attracted lots of attention.

Just over two months later, we were back on the stand at the Optrafair Exchange in Birmingham, where we launched our new Optical Assistant (OA) course. College principal, Jo Underwood, explains the benefits of the new course on pages 4 to 5. Further afield, we are also celebrating our success at delivering new opportunities for aspiring dispensing opticians Down Under. As you can see, it's been a very successful six months.

Myopia is of great concern to all of us and inside Mireille Guilmoto shares her interesting research, '*The association between near activities and the incidence of childhood myopia from six to 18 years of age.*'

Another important topic for students is maths, and for those who find it a particular challenge, don't miss Mark Nevey's top tips on how to successfully deal with it.

Our popular senior courses administrator Paula Hall has been working at the College for 18 years and we celebrate her achievements with a special feature. From a College stalwart to a newcomer, we wish a warm welcome to our new lecturer, Adam Ayres. Find out more about him in this packed edition.

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News

Cause for celebration in Australia

ABDO College is celebrating a successful teaching trip in support of new opportunities for aspiring dispensing opticians in Australia and New Zealand.

Following a successful pilot year, applications are now open for a course in ophthalmic dispensing, which combines online study with lectures and practical sessions in Australia.

The course is being run by the College, and College principal Jo Underwood spent a week in Melbourne earlier this year working with students, as seen on the cover of this edition of *Re:View*. She explained: "In order to fully support students on the ophthalmic dispensing course who are based in Australia and New Zealand, we offer two one-week teaching blocks to supplement online course materials."

Jo ran the first of the face-to-face teaching blocks in February, which was a great success and returned to Australia last month. "In February, I introduced the practical elements required for year one of the course, gave additional theory support, and helped students understand the examination format. The group was hugely enthusiastic, really positive and excited about the programme," she concluded.

The appetite for further optical education in Australia and New Zealand is growing, as one of the driving forces behind getting the course up and running in Australia explained.

Richard Couch is head of ophthalmic lenses and dispensing advancement with the Specsavers Product Team in Australia and New Zealand. He said: "There is a tremendous desire for dispensing advancement in both Australia and New Zealand and there is no better format for learning than the ABDO format."

Applications go online

ABDO College has opened online applications for the following courses:

- Ophthalmic Dispensing Diploma (FBDO)
- BSc (Hons) Degree in Ophthalmic Dispensing
- Contact Lens Diploma
- Optical Assistant
- Senior Optical Assistant
- Distance Learning revision – all courses

ABDO College head of operations, Steve Hertz, said: "We are excited to be able to offer online applications for the first time. Potential students can start the application process, save progress and return to their applications, making applying to ABDO College even easier."

To find out more, visit **www.abdocollege.org.uk/courses**.

Your chance to swear by 'the Lens Bible'

The College bookshop was busy at the Optrafair Exchange with the major official launch of the new book, *Ophthalmic Lenses Availability*. Pictured is Rachel who was the first person to buy the new book at the trade show.

A valuable dispensing aid, the guide collates information from leading lens manufacturers enabling anyone in the optical profession to rapidly locate the most suitable lenses.

ABDO head of communications, Antonia Chitty, said: "Simply known as 'the Lens Bible,' this essential guide is much in demand every year. Our thanks must go to Phil Gilbert for continuing the complex job of editing the book."

The new guide features manufacturers' data, an availability index, PPL corridor length and fitting heights, details of lens materials, tints and coatings, plus a lens engravings list. The book is available in eBook and print formats.

To order a copy, visit www.abdocollege.org.uk/bookshop

News

Show and tell

There was a real buzz on the ABDO College stand at the Optrafair Exchange, with staff keen to promote the launch of a major new course and the official launch of the definitive guide to spectacle lenses, coatings and tints available in the UK.

The College's new Optical Assistant course is suitable for people who have just started working in optics, as well as those who have been in practice for some time and want to formalise their knowledge.

Practice owners visiting the Birmingham show at the NEC (30 March to 1 April) were advised that the new course is a flexible way to train their support teams. It combines practical tasks, to develop practice-based skills, with online modules and workshops, making it a good way to combine study with a full-time job. Students' knowledge of frames and lenses will grow, allowing them to develop what they can offer patients

with growing confidence and knowledge. The course will run every September and January with individual tutor support to ensure student success. New workshops will cover repairs and pre-screening and take place at ABDO's National Resource Centre in Birmingham.

ABDO College head of operations, Steve Hertz, said: "Optical education has changed dramatically in recent years, with a new focus on more on-the-job training. We find that there is less demand for an examination-based course at the entry level, and we are delighted to

see this new course with its emphasis on in-practice tasks and practical workshops.

"It will provide a firm foundation for people to progress to the level 4 OA and OT courses and the ophthalmic dispensing courses."

The course has been developed in response to feedback from students and employers. The College's optical support course coordinator, Rian Love, added: "We know that examinations can deter students from returning to study which is why this new course is evaluated by continuous assessment. There are no examinations and no examination fees, but the robust continuous assessment and workshops ensure that every student who completes the course is a high-calibre asset to any optical practice."

The course lasts 25 weeks and costs £795. Applications are open now. The deadline is 30 August for a September start. To find out more, visit **www.abdocollege.org.uk/courses**

For the inside track on why the course was developed and its benefits, read the interview with College principal Jo Underwood on page 4 and 5.

News

Major contact lens guide is launched

A definitive guide to contact lenses has been updated and is now available from the College bookshop.

Completely revised with the latest advances, evidence and standards needed for everyday practice, *Contact Lenses, 6th Edition*, is designed for optometrists, dispensing opticians, ophthalmologists and contact lens practitioners.

The classic guide provides all of the essential knowledge needed in one convenient volume and is essential reading for the College's contact lens certificate course. It provides the latest information on contact lens materials and lens types, treatment in contact lens and tear film complications, myopia correction and contact lenses for abnormal ocular conditions.

The updated version includes new online access to ExpertConsult, with calculators and simulation programs for scleral lens fitting, sagittal values, soft toric mislocation, front vertex power, orthokeratology and rigid lens design.

The guide also discusses current topics such as miniscleral lenses, keratoconus and corneal cross linking plus paediatric, cosmetic and prosthetic contact lenses.

An enhanced eBook version is included with purchase which offers access to all of the text, figures and references from the guide on a variety of devices.

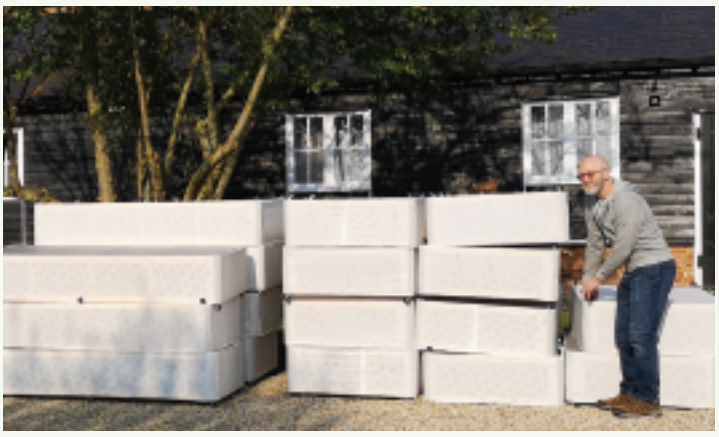
ABDO College bookshop administrator, Justin Hall, said: "We are excited about this launch. This is the most up-to-date text on contact lens materials and lens types. It is the definitive work in this field, completely revised and updated throughout."

To order the book, visit **www.abdocollege.org.uk/bookshop**

And so to bed . . .

ABDO College has begun a long-term project to upgrade the facilities in its on-site student accommodation.

The upgrade plans have been devised by operational services and have used student comments as a basis, after the College introduced online feedback for students this year on all elements of their course experience, including the on-site accommodation.



Head of operations at the College, Steve Hertz, said: "We have been collecting feedback over the past year from those who have stayed with us and this has been invaluable when planning in the works needed and deciding on the order they will happen.

"With residential blocks happening for 32 weeks of the year, we are limited on when we can undertake larger scale improvements, however, the Easter break provided our first opportunity. We replaced all 17 beds and mattresses with new, high quality products, with all the old materials sent to be recycled."

The upgrading of the student accommodation will continue over the summer holiday with a complete revamp of a third of the en suite bathrooms planned in with the annual decorating and general maintenance. The rest of the bathrooms will be upgraded over the next two years.

"This revamp is good news for now and the future," Steve added. "It is an exciting period coming up for both the student residents and for us as staff. I hope the plan we are putting into place will ensure that a great experience is continued to be had by our students for years to come."

Progress is a matter of course

The launch of the new Optical Assistant course was a major development for ABDO College. Robina Moss finds out more from the College principal, Jo Underwood.

The College's new Optical Assistant course was officially launched at Optrafair Exchange in March and is aimed at people who have just started working in optics, or who have been in practice for some time and want to formalise what they have learnt. With online study, it will help them to grow their knowledge of lenses, frames and contact lenses and develop what they offer to patients with increasing confidence and knowledge.

It has many benefits for students, as Jo highlights: "The new course will have small, continuous assessments, with feedback from tutors, so that students have the opportunity to learn from the mistakes that they make early on in the course and then they can put that into effect as they progress through the programme.

"Students will get an ABDO College qualification now, so although it will be at entry level, it will not be OfQual-accredited, but it does mean that they do not have to go through one big bang formal assessment."

Explaining the reasons behind the major development, she adds: "The new Optical Assistant course will also contain more practical because we were concerned that a large part of the job is practical and, in the past, it was all assessed theoretically, which seemed very strange to me.

College principal Jo Underwood at Optrafair

"We are introducing workshops and practical elements to the course, which I think fits the job role well. I think that will please students, prospective students and employers alike."

Summarising the move, Jo explains: "So, at entry level, there will be no end-of-course examination any more. However, if students progress onto Level 4, there are cumulative examinations, but this Optical Assistant course will give them the opportunity to get back into education and start to gain that confidence that they need before they have to undertake a formal examination process again."

The development came about because ABDO College is taking over assessment of the optical support courses from the Worshipful Company of Spectacle Makers (WCSM) this September. "That gave us the opportunity, with the WCSM, to think about and consult on what changes were needed to ensure that the courses were fit for purpose and what employers want," Jo highlights.

Explaining the background to the changes, she adds: "From research, we know that the lower level courses, the Levels 2 and 3, were assessed by examination and that it was off-putting to a lot of potential students who had been through an examination system for GCSEs and perhaps not performed very well. Therefore, to put them into that sort of environment again was not what they wanted, and it is not necessarily the only way of accessing a student at those levels.

"So, we decided, with the WCSM, that assessing these Level 2 and 3 students by examination was not the best route and continual assessment would be more effective.

"We also determined from employer and student feedback that so many different levels were confusing and that OfQual accreditation was not essential at this level. We have therefore removed Levels 2 and 3 and replaced them with the new Optical Assistant course, with new material for 2019/20.

"The Level 4 course, which was introduced last July, is now the Senior Optical Assistant course, with all of the materials for the Level 4 programme only recently written."

Major changes ahead

The College's ethos is one of continuous development and the next programme scheduled to be reviewed will be the Optical Technicians course, which "just needs updating as all of the courses do on a constant cycle," Jo explains. However, there are some other major changes under discussion.

Jo elaborates: "We're currently working with employers to facilitate a Level 6 ophthalmic dispensing apprenticeship. That is in its early stages because the Trailblazer Apprenticeship Group needs to consult with employers, and it has got to fit in with the government's view of an apprenticeship programme, ABDO's requirements of the professional qualification and the General Optical Council's [GOC] requirements for entry onto the optical register. No small task there."

She adds: "I think the Trailblazer Apprenticeship Group is looking for implementation and the start of the course in 2020. Whether that's achievable or not, I am currently unsure, particularly when we do not yet know the final outcome of the GOC's Education Strategic Review and the impact of learning outcomes replacing core competencies.

"The government adviser on the Trailblazer Apprenticeship Group is saying that she thinks it is achievable, but I guess it depends on how many changes there will be to the current course in order for it to fit into the apprenticeship model. It's looking to me that the changes have to be quite significant and obviously that takes time to implement," emphasises Jo.

One major change that has come to fruition and has College staff very excited, is the move of the courses, applications and supporting materials to the online Moodle platform. It is a development which will reap major benefits for students, the College and staff.

The project has taken years of work, as Jo highlights: "We did it year by year, rather than one big hit: first years in 2018/19, first and second years in 2018/19 and then first, second and third years, plus contact lens and low vision is happening this September.

"By this September, all of our courses will be fully online, and it's actually gone amazingly smoothly," she adds. "I was worried that the whole system might crash, and we'd lose everything," she confides. "It's been managed amazingly well though. Lecturer Simon Butterfield built the platform and has uploaded all of the materials and both Simon and Steve Hertz, the College's head of operations, have ensured that the ongoing structure is fully operational and can support all we require of it."

Last month saw another milestone as applications went online for all of the courses, which will particularly benefit overseas students.

Benefits for all

Jo highlights the practical improvements: "There are no more pieces of paper going backwards and forwards and it does mean that people are able to upload their certificates and so they will know how far they've got through the system and what they still need to do. It also means that they can leave an application incomplete if they need to and go back to it. If there is anything they are missing, they can go out of the system, find whatever it is that they need and then they can upload it."

It also means benefits for the College, as Jo explains: "It is so much easier because, if there were any information missing previously, we would have to write to applicants. Additionally it will give the College a financial benefit by saving paper, as well as being more environmentally-friendly."

Concluding, she adds: "I have to thank all of my team at the College who work extremely hard doing the best job they possibly can. They're all here at ABDO College for the right reason, they all want to see the students succeed on whatever programme they have signed up to. They all know that they are at the College to help as much as they can, and they absolutely give their all. I love them all for that."

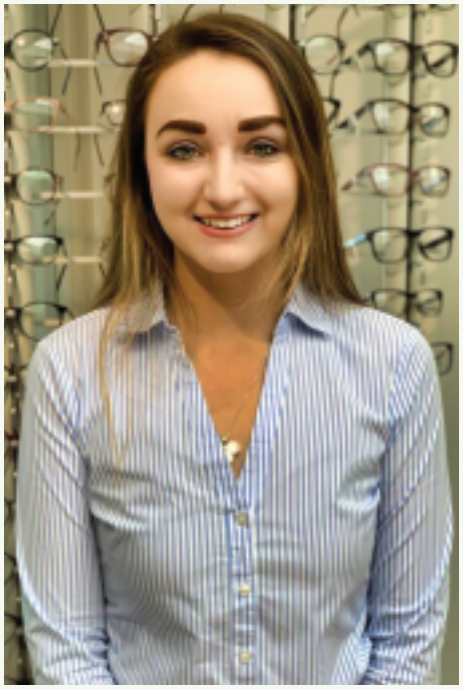
The new Optical Assistant course starts in September, with the deadline for applications being 30 August. The course will be held again in January 2020, with the deadline for applications 17 January 2020. For more information and to apply, visit **www.abdocollege.org.uk**

About the author

Robina Moss has been an optical journalist for 19 years and was long-term deputy editor of OT. She now runs her own company, Forward4Business, offering copy-writing, editing and photography services to optical organisations, practices and companies.

Island life in an independent

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. In this feature, you can read about Mireille Guilmoto and her research paper, '*The association between near activities and the incidence of childhood myopia from six to 18 years of age.*'



Mireille Guilmoto

Mireille Guilmoto has worked for an independent practice in Guernsey, AJ Webster Opticians, since August 2014 and applied for the ABDO College BSc course in ophthalmic dispensing in 2015, after she had worked in the practice for a year. She began the course in September 2015 and finished last summer, graduating with a 2:1 with honours. "My graduation for the degree was in January, which was one of my proudest moments," she reveals.

Speaking about how the course has helped her, Mireille explains: "As I am still considered young at 23, I have struggled with patients taking my word seriously but having learned so much from ABDO College, I now speak with confidence and am sure of my recommendations, which helps patients to trust my knowledge.

"I enjoy interacting with patients and advising them on the most suitable lens options for their lifestyles and prescriptions," she highlights.

Like many people, Mireille's career in optics took a different route to what she had first planned, as she explains: "At school I considered studying optometry at university as I loved studying biology and anatomy, but the grade requirements were higher than I was predicted to get."

Practice inspiration

Fortunately though, fate intervened because during the summer after her sixth form year, she saw an advert in the local newspaper for a trainee DO at a practice across the road from her house. She applied and began work a few weeks later. "At that stage, I had never even heard of the title dispensing optician, but the more I learned while working, the more I wanted to study optics," she emphasises.

When she first arrived at ABDO College, it was the beauty of the historic landmark which had the biggest impact. "We all spent time looking at the architecture when we arrived," she said. However, it was soon down to the serious business of studying.

"We began the lectures straight away on our first day of block release in the first year, but I don't think I was prepared for the intensity of the two, two-week sessions of each year," she said. "It was tiring being at ABDO College but rewarding answering the lecturers' questions correctly."

As with many students, there were some parts of the course which were a particular challenge for Mireille. "I found the refractive management module in the final year the most difficult because you had to apply your knowledge from the last three years of study into one examination paper, so there was a lot to learn.

"I also struggled with low vision as we don't have a low vision clinic in my practice, so I hadn't experienced teaching the use of low vision aids or making low vision calculations," she adds.

Being from the Channel Island of Guernsey also presented some different challenges to her counterparts. "We don't have all the same organisations, or laws, as the UK," Mireille explains, adding: "We also don't have the NHS, so I found it difficult to learn about the

different forms and legislation that many of my fellow students dealt with every day in practice."

However, Mireille developed her own strategies to help her overcome the difficulties. "I made up rhymes and anagrams to learn the forms and what they applied to," she highlights. "I did a lot of cramming because there was too much information to retain for months prior to that exam.

"I also asked my tutors if I was stuck on a question and they were always really helpful and supportive. The practice I work in has two optoms but no DOs, so it was sometimes difficult if I was stuck with a question in an assignment as no-one locally could help me."

Mireille's favourite parts of the course were the anatomy and abnormal ocular conditions modules as she enjoyed studying human biology. "The lecturers were fantastic as they are clearly very interested in their topics, so this helped hugely to keep us focused and enthused in the lectures and lab sessions.

"I also enjoyed the contact lens module as I provide contact lens handling tuition at my practice, so I knew some of the information already."

Mireille's research was also inspired by what she was encountering in practice on a regular basis. "Childhood myopia is a popular topic in optics, and we see many children at my practice," she explains. "We are always reminding them to go outside and to not stare at phone screens all the time.

"I realised that I hadn't considered any evidence of the effect of near activities on the development of childhood myopia, so I wanted to see what level of evidence there was to back up the information we give to our patients."

Mireille began her research at the start of the third year by looking at past copies of *Re:View* magazine to see if others had analysed the same area, as well as the level of evidence they had referenced.

'I enjoy interacting with patients and advising them on the most suitable lens options for their lifestyles and prescriptions.'

"I only found a small number of similar research areas and the evidence was hierarchically low, but I was fortunate to find a systematic review and meta-analysis, which our lecturers told us weren't common in optics, so this inspired me to get involved with the topic," she said.

Explaining her methodology, she adds: "I started seriously researching the topic following block release in the January when we had to give presentations about our search so far. This was lucky as the systematic review had only been published in 2015, so I had new evidence to critique. I found the papers mainly using Google Scholar and search terms in Boolean operators."

Completing her research led her to the conclusion: "It is untrue to state that near work activities influence childhood myopia solely, and that other risk factors, including parental myopia, level of education and age, may impact on myopia development."

Now graduated, Mireille is looking ahead to the next steps in her optical career. "I'm still trying to figure out my future, but now that I have the degree behind me, I like to think this will help to progress my career path," she emphasises.

"I'm leaving Guernsey soon to move to the south coast of the UK, where I hope my opportunities will be wider than a small island. The work-life balance was intense while working and studying full-time, so I'm enjoying having spare time again now."

Mireille's tips for students following a similar path are: "Ensure that there is someone in the practice who has studied dispensing optics to help with questions and revision. Plan a schedule for balancing study, work and social time, as it's important to take a break from the hard work.

"And for anyone on the course who doesn't get to stay in the on-site College accommodation, the Woolpack Inn in Chilham is a very friendly place to stay and they became my family for four weeks a year," she concludes with a smile.

The association between near activities and the incide from six to 18 years of age

By Mireille Guilmoto, BSc (Hons) Ophthalmic Dispensing

INTRODUCTION

Myopia is a global public health issue (Calossi *et al,* 2016), (Guggenheim, Logan and To, 2018). It is predicted that by 2050, half of the world's population, predicted as five billion people, will be myopic, with nearly one billion at high risk of sight-threatening ocular pathology (Davis *et al,* 2015), (Guggenheim, Logan and To, 2018).

Myopia is one of the five immediate priorities for the 'Vision 2020' scheme by the World Health Organization (WHO), so it is important that action is taken to prevent future children from developing the type of ametropia unnecessarily, by environmental influences (Pararagasegaram, 1999), (Chang, Huang and Wu, 2015). Myopia can be corrected with spectacles, corrective surgery and contact lenses, however, the cost of treating it, as well as its associated conditions, such as rhegmatogenous retinal detachment, glaucoma and chorioretinal atrophy, is high, at an estimated US$4.6bn in the United States (Kapetanakis *et al,* 2015), (Buitendijk G *et al,* 2015).

Myopia is thought to have a multifactorial aetiology and early onset myopia is associated with high myopia (considered with spherical equivalent [SE] <-5.00 Dioptres [D]), suggesting that environmental factors in childhood may influence the development of myopia (Chang, Huang and Wu, 2015). These may include activities at a near working distance, such as reading, writing, computer use, video games, watching television, as well as outdoor activities, such as walking, shopping, running, ball games and skipping (Chang, Huang and Wu, 2015), (Ciuffreda *et al,* 2017).

Other potential risk factors in developing childhood myopia include a family history of myopia, ethnicity, age, sex, higher education attainment, level of urbanisation, parental education and a low birth weight (Kapetanakis *et al,* 2015), (Chang, Huang and Wu, 2015.). An investigation was conducted to assess the research question: how could near activities influence the development of childhood myopia?

FINDINGS

In each of the studies, the refraction of the children was completed with the use of cycloplegia (Fotouhi *et al,* 2015), where Ciuffreda *et al* (2017) and Kapetanakis *et al* (2015) used one per cent cyclopentolate and He *et al* (2018) used 0.5% tropicamide. All four papers utilise an auto-refractor at least 20 minutes following the instillation of cycloplegics to ascertain the refractive value for the results.

The type of studies varied, Chang, Huang and Wu (2015) comprised a systematic review and meta-analysis that covered cohort studies, longitudinal cohort studies and cross-sectional studies. The study by He *et al* (2018) was longitudinal, so followed the subjects over a four-year time frame. This allowed the subjects to be monitored for any change in refraction, and whether there was an increase or decrease in myopia from the baseline. Kapetanakis *et al* (2015) produced a cross-sectional study that will be revisited at three-year intervals.

In the study by Kapetanakis *et al* (2015), the data showed that regular physical activity was associated with a lower prevalence of estimated myopia than sedentary lifestyles. The odds of myopia were more than 2.5 times high among children attending academically selective schools compared to non-academically selective schools. Children with one myopic parent were 2.91 times more likely to have myopia, and with both myopic parents were 7.79 times more likely to have myopia than children with no myopic parents. Although the univariate analyses showed a gradual increase in positive correlation between the time spent on near vision activities and the risk of myopia, this was not found to be statistically significant. The paper by He *et al* (2018) showed no association between near activities and myopia progression was found and considered insignificant. Only parental myopia was associated with progression of SE, where both parents were considered myopic, versus no myopic parents. Outdoor activities also showed no significance.

The systematic review and meta-analysis by Chang, Huang and Wu (2015) did find a correlation between near activities and myopia.

The near activity was concluded to be specific to reading. The more time spent on near activities associated a higher chance of myopia development. The paper also found that the risk of myopia increased by two per cent for every one dioptre-hour more of near work per week. This disagrees with the other three papers assessed, however, the sample size is much larger than the three papers combined as the review analysed 27 studies over a 25-year period.

All four papers found a correlation between the presence of myopia in one of both parents of the child subject, indicating a possible cause for the development of myopia in younger years.

DISCUSSION

The purpose of the research in the extended essay was to analyse data from four different papers of literature on the association between near activities and the incidence of childhood myopia. The research could help to provide practitioners, including dispensing opticians, orthoptists and optometrists, to perform best practice and inform patients of the risk factors

nce of childhood myopia

associated with myopia, and how it may be prevented. This in turn could help to reduce the cost of managing myopia with the use of spectacles, contact lenses and refractive surgery (Buitendijk G *et al*, 2015).

All four studies reviewed near activities as a key risk factor for the development of myopia. Two of the papers focused around near work, including Chang, Huang and Wu (2015) and Ciuffreda *et al* (2017). The remaining two studies focused on risk factors for myopia development in children, which included near activities, but also the time spent doing the activity and the impact of outdoor activity on the rate of myopia progression, if any, including Kapetanakis *et al* (2015) and He *et al* (2018).

The systematic review and meta-analysis would have been heavily assessed by peer reviews and took five months to be minimum accepted from submission in April 2015, being finally published in October 2015. This confirmed that the large-scale paper was of importance for the research and is not commonly found in this subject area, though more are being accepted.

A limitation relevant to He *et al* (2018), Kapetanakis *et al* (2015) and Ciuffreda *et al* (2017) involves the use of questionnaires. These questionnaires were used to relate myopia risk factors, but they could be subject to recall bias, as the parents and children completed them over time (Althubaiti, 2016). However, Ciuffreda *et al* (2017) reassessed 50 child subjects to eliminate the possibility of recall bias and found the results to be consistent.

The conclusions of the four studies were not all in agreement. The systematic review by Chang, Huang and Wu (2015) concluded that near work activities might influence the development of childhood myopia. In contrast, He *et al* (2018) concluded that only parental myopia was associated with myopia incidence and progression in the current population. The paper concluded that if a child has SE $\leq$ 0.75D in Grade One (age seven), they are 83.5 per cent more likely to have developed myopia by the end of primary school, as a result of parental myopia (He *et al*, 2016).

While the paper by Kapetanakis *et al* (2015) did not conclude that near activities influenced myopia, it did find that regular outdoor activity was associated with a lower estimated prevalence of myopia, compared to sedentary lifestyles. Moreover, children with one or both myopic parents are 2.91 times and 7.79 times more likely to develop the condition than non-myopic parents, respectively. Ciuffreda *et al* (2017) concluded that no association was found between near work and myopia.

CONCLUSION

Each of the four papers provided in-depth studies of childhood myopia. However, large differences in sample size between the systematic review and meta-analysis and the cohort and cross-sectional studies, made comparisons difficult. As not all studies were longitudinal, it is less well displayed whether the influence of near work activities affects childhood myopia, although no relevance was discovered in any apart from the largest paper.

Parental myopia has a higher influence on the risk of development of childhood myopia than near work. More research should be performed with the involvement of parents and their children, where randomly selected parents with no myopia, both with myopia and only one with myopia, should be available without restrictions.

More longitudinal studies should be performed to assess the influence of near work over time. However, this could result in unethical practice as the subjects would be aware that there is a risk of the tasks they perform impacting on their vision. This could also influence bias when completing surveys and questionnaires of the studies. Measurements, as taken in the study by He *et al* (2018), for axial length, corneal curvature radius and SE should also be performed to monitor myopia development.

In conclusion, it is untrue to state that near work activities influence childhood myopia solely, and that other risk factors, including parental myopia, level of education and age may impact on myopia development.

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Adam Ayres interview

Adam Ayres joined ABDO College as a lecturer in April. In this article, find out more about Adam and his new job.

What does your role entail?
Invigilating exams, marking, creating lectures, researching the necessary topics to create said lectures, giving lectures, understanding the exam process to best advise students and being there to help people.

What attracted you to the job?
I have always enjoyed teaching people things, whether that was helping my fellow students during my degree, or in practice helping my workmates, new or experienced.

What are your optical qualifications?
I am a fully qualified and registered dispensing optician, with a degree in ophthalmic dispensing, BSc (Hons) FBDO.

How long have you been in optics and what attracted you to the sector?
I have worked in practice for more than six years. I had a long think about what I wanted in a career, and optics ticked all the right boxes. I wanted something which would challenge me, that was always progressing because otherwise I would get bored and frustrated. I also wanted something where I could have a bad day at work but still be able to say, "I helped people today in a way that I find meaningful". I wanted a role with multiple career paths.

Where have you worked before?
I have worked at Specsavers in Weston-super-Mare, Specsavers in Taunton, and the most recent practice I worked in was an independent practice called Turners Concept Eye Clinic in Bridgwater, Somerset.

What are your areas of interest?
In optics, I am primarily interested in abnormal ocular conditions and colour vision. Outside of optics, I like watching football and international rugby union. I enjoy watching films at the cinema – the Marvel cinematic universe has been great so far – and some TV shows such as Game of Thrones. I also enjoy nature, going for walks in botanical gardens and forests, plus I like aquariums, though I sometimes wonder if it is cruel to have the animals in there.

What do you hope to bring to your new role?
Good ethics and an enjoyable way to learn that helps students become model professionals.

What do you enjoy about the role?
I enjoy the studying aspect of the job and being in a position to really help the students.

Are there any challenges?
Knowing and understanding the content is a massive challenge and one that never really ends. I am re-learning lots of things and although it is fun, it is definitely a challenge.

What do you like about the College?
The building is incredible, and I enjoy saying hello and goodbye to the sheep on my way in and out. Many people consider ABDO College to be the gold standard of learning ophthalmic dispensing and I feel honoured to be a part of the team here. Everyone has been really kind and supportive towards me.

What would be your advice to students?
Make good notes and keep them nice and organised as it will help you out in the future. Whatever you do in life, always do the best that you can and don't be afraid to take risks and rise to the challenges that life sends your way.

Top tips if you are struggling with maths

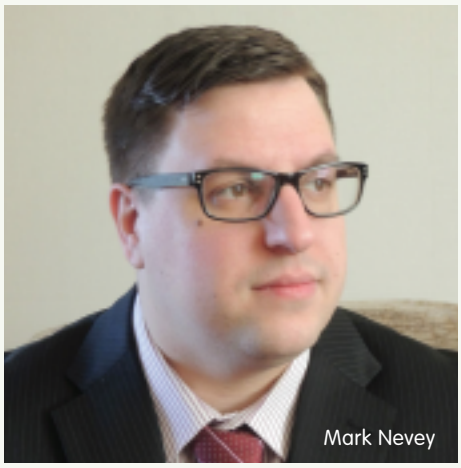
By Mark Nevey, FBDO

In the June 2018 issue of *Re:View*, we discussed some of the ways to overcome problems with written English. We focused specifically on when English is your second language, or if you have dyslexia. In this issue, we look at tips on how to deal with maths when you've always struggled with it.

In some ways, having difficulties with the maths involved in the DO course can be more detrimental to your success than struggling with writing. When it comes to writing, if the grammar or spelling is poor, at least the sentences almost always still make sense. However, bad mathematics, especially at an early stage, can come across as looking like nonsense.

When starting out on the DO course there are a couple of key things to keep in mind in respect to maths. One is to make sure you are confident with the basics. You can feel inadequate if you think there is an area you have never quite grasped, especially if it is perceived to be a basic level of maths. If there is a gap in the foundations of your maths knowledge, then it's going to act as an underlying obstacle to the entire DO course and you need to plug the gap very early on.

One great way to do this is to enrol on the Mathematics Access course at ABDO College. It's a distance learning course which runs for 21 weeks and covers a vast range of mathematical topics. Details of the Access course, including the topics covered, course requirements and how to apply, can all be found on the ABDO College website at www.abdocollege.org.uk



Mark Nevey

ABDO College lecturer, Haydn Dobby, explains the importance of having a good foundation in specific topics: "For first years particularly, trigonometry and triangles are a huge part of geometric optics, and a good understanding there helps massively. Most of the other maths is really just adding, subtracting, multiplying and dividing – or ray tracing."

There is an extensive array of mathematics textbooks on the market, ranging in competency and skill level, from key stage to university level and the ABDO College bookshop can help. If the most basic level is what you require, then don't be ashamed to use textbooks. If they fill the gaps in your knowledge and understanding, then that's all that really matters.

The write stuff

Another helpful hint is to write out all of your calculations in full, with clear and well-spaced out workings. Do this in assignment drafts, assignments being written up for submission and in exams, as well as in lecture notes. This is really for your own benefit as much as an assessor's. It will make it easier to spot any mistakes and will leave you with the space to rectify them.

It is essential that you can make sense of any formulae you've written, since at a later date you may need them for revision. Ultimately, as Haydn points out: "It's more about learning when to do what, than being amazing at maths." If you take your time and be sure not to skip steps, then it can come together on the page, as well as in your mind.

Like anything at ABDO College, don't be afraid to ask for help and advice. Lecturers are ever present throughout your time on block release, while personal tutors are at the other end of a phone when you're struggling with assignments.

Article continued overleaf

'It's more about learning when to do what, than being amazing at maths.'

Top tips on maths continued

Don't forget there is also the help of fellow students for you to utilise. It can be really helpful to combine brain power, which is especially easy on block release during your free time around lectures and classes. However, a note of caution: it's important not to become confused by incorrect information. Make sure that you are acquiring advice and help from reliable people and check it. There can be nothing worse than learning the wrong method or formula from an unreliable source.

Another way to make your life easier when studying or revising is to put together a little book of formulae for yourself. As you embark on the course, you will quickly discover that there are a number of different formulae, which often need to be combined or rearranged in a calculation.

In optics, these same formulae come up time and time again. Having a small notebook you can refer to for the most common formulae is hugely useful. Of course, it can't be taken into an exam, but it can often eliminate the need to scour through heavy optical textbooks, or reams of revision notes, thereby saving you valuable time.

If you struggle with maths, don't despair, just make sure you take the right approach and seek out all the help you need. There are many facets to being a dispensing optician and if you fall short with maths ability then just keep working at it – and with the right tools, you will succeed.

Paula Hall interview

Senior courses administrator Paula Hall has been working at ABDO College for 18 years and was its second employee. In this article, find out more about Paula and her role.

What does your role entail?
My current role entails dealing with the degree students, liaising with Canterbury Christ Church University for student enrolments, and Blackboards; ensuring the students have all the core content they need for the submission of assessments. I work with various university departments to ensure they have everything ready for the exam boards so students can get their degree when they have completed their course.

In addition, I administer the ABDO College Virtual Learning Platform for optical support courses; uploading coursework, setting submission points, enrolling students and allocating tutors. I also proofread courses at all levels from optical support to BSc.

What do you enjoy about your role?
I enjoy the variety of my job and I've even learnt a new language. I now speak English, optics and university. University speak is very different to optics and English. I like the fact that I can be dealing with someone entirely new to optics one day and the next I can be helping someone who is FBDO qualified working towards their degree. It makes for an interesting day.

What are the challenges of your role?
Student and employer expectations; it's like anything else, that student thinks they are the only student and that situation is the only one that matters and employers can be the same, but we have ever-increasing student numbers so things can get a bit challenging. There are times when I have to explain as politely as possible that I am doing the best I can, that there's me and a small team doing what we can for everyone.

At the end of the day though, my priority is the students. I want them to get the best they can out of the education on offer. I want them to succeed. With the degree students, I want them to get the best result they can, to get their BSc Honours, so that they can progress in their careers. It doesn't have

to be a first as long as they get the best they can.

What were your jobs before joining the College?
I was a nanny for many years. I went straight into that after college where I trained in social care. After I was a nanny, I moved into administration and went to work at a tannery and then moved to Godmersham where I worked for ABDO College as office manager for six years before becoming a courses administrator 12 years ago at the time of the degree set up.

How do you see the future for your role?
Ever-increasing expansion. It seems there are many more options now for optical support. It's making optics accessible to more people, so I can only see operational services expanding and my role becoming busier as a result.

What changes have you seen?
The main change has been that we now use the Moodle platform for all our courses. This is a great benefit for students as everything is in the same place – the tutors, the courses, everything. Students can submit coursework and assignments, plus there are areas for messaging.

When are you most busy?
I have a quiet period for about two weeks in June when it is less busy, but there is always something I am preparing for. In September, there are a number of courses starting; optical support at multiple levels, plus the degree.

In January the fast track technician training for FBDOs starts. From September to February, I am ensuring all modes of study are current and in good working order (Blackboard and Moodle), then once university assessments start to come in, I am preparing for the exam boards which continue through to August.

Then it is September again. It is busy throughout the year. Students spend three years on the degree course, with six assessments a year. We have 100 students over three years and optical support is another 100 to 150. Optical support students have individual timetables, so it's a very busy workload.

Thankfully we have Wendy Ellis who is very organised and handles the documentation. We couldn't do it without her. We also have great support from Gill Bickle, who is the courses coordinator for dispensing, and Rian Love for optical support.

What are your most common queries?
I mainly get queries from optical support students who often ask about their best options and the best pathway for them.

What would be your advice to students?
My best advice would be to keep communicating with us. We are here to help with any issues. It's not just about assessments, we are here to support the students as well. I would always urge students to remember that support is there if they need it. Things often happen in life that you hadn't expected, for example a family bereavement, which can delay entry or impact on research for an essay.

It's important to emphasise that the College is not so big that we don't provide a personal support system. We all need a bit of help and support sometimes. The ABDO College website has lots of information for students and supervisors as well as contact details for all college staff and links with the ABDO College bookshop too.

Paula's tips for degree students:

Use a diary or a calendar to plan your submissions and allow plenty of time to submit them. Please do not start your essay the week of submission, as it will not be your best work. If possible, submit well before the deadline. If your computer crashes, for example, and you can't submit on time, there is no leeway. Late is late and valuable marks are lost at a rate of five per cent per day late.

Always ask someone to proofread any essays, preferably someone who has no optical knowledge, as they can question you if something doesn't make sense. Finally, make sure you get to grips with referencing. There are books and online tools to help with this.

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