

Re:View

Keeping excellence in your sights | October 2015 | Issue 23

Mastering Optics

Launch of a new MSc
programme for dispensing
opticians

Top tips for postgraduate study success

Profile feature on Daniel Palfrey

We find out about Daniel and
his research into whether the
academic performance of
children can be improved
by wearing spectacles



Mastering Optics

ABDO College and Canterbury Christ Church University (CCCU) announce the launch of a new level of optical education, a Masters programme for dispensing opticians as part of the CCCU MSc in Health and Wellbeing.

ABDO College will be supporting this programme and has been involved in its development. The MSc Health and Wellbeing provides a different way of gaining an MSc qualification to help practitioners address future policy changes in optical practice and primary care.

Sir Antony Garratt, general secretary of ABDO says, "The ABDO board has recognised the need for the dispensing profession to keep moving forward. One of the best ways of achieving this objective is to continually increase the learning opportunities for DOs and to widen and extend the knowledge base. For any profession to grow and expand it has to have a solid academic underpinning. The Association started by getting all of its qualifications assessed and benchmarked by QCA (now Ofqual). We then developed our BSc (Hons) programme with Canterbury Christ Church University. We have now moved to a new Masters programme at the University and our first student

has enrolled. This is only the beginning, the Association has established an Academic Research Fund to support students wishing to further develop their optical studies for the benefit of patients and the profession." Jo Underwood, principal of ABDO College says, "The course is designed to be flexible and responsive to your learning and development needs and those of your practice. You will be able to devise your own bespoke route through the programme and nominate an award title that reflects your individual programme of study, such as MSc Health and Wellbeing (Ophthalmic Dispensing), MSc Health and Wellbeing (Low Vision)."

The programme emphasises the need to develop high quality health and wellbeing services for all ages across the health and social care sector. It is devised to help participants foster a culture of collaboration with others from different disciplines and professions. Through critical analysis

of theory, research, policy and legislation professionals taking part in the course will be supported to advance scholarship and practice.

The course has three main aims: to allow students to explore the philosophical, theoretical, ethical and legal perspectives and parameters that influence professional practice, to evaluate how research approaches and methods of critical enquiry can be best utilised to create and interpret knowledge and evidence for the improvement and development of practice, and to develop as an autonomous and self-directed learner who is able to sustain and enhance knowledge and skills to meet personal, professional and organisation's needs.

Jo Underwood explains, "The MSc Health and Wellbeing offers a personalised learning programme. Students will initially undertake a module to introduce the core concepts related to the promotion and enhancement of health and wellbeing. They will also be encouraged to reflect upon their careers, identifying their learning and development needs and aspirations. These reflections will inform the plan for an individualised learning journey through the programme. Having planned this programme of study if students wish to seek a named endorsement in ophthalmic dispensing they will be guided to managing the formal process of gaining approval for this. Each student will then undertake the identified modules that form their individual programme. Students can also choose from a range of modules offered within the university postgraduate

Find out more about who can apply and request an application form call 01227 782 418, or email postregandfd-healthadmin@canterbury.ac.uk

For further information about the MSc Health and Wellbeing please contact Jeannette Head on 01634 894 433, or email jeannette.head@canterbury.ac.uk

A Master Milestone

provision to form a personalised learning programme. All taught modules will require some attendance at Canterbury Christ Church University, but every effort will be made to keep this to a manageable level."

The MSc programme is designed with flexibility for a motivated professional to follow their interests. Alongside the range of modules on offer, you can opt to study topics of your choice in a bespoke manner by undertaking a Negotiated Learning module. This can provide you with the opportunity to gain academic credit for learning and development in the workplace. Jo explains, "You may also bring advanced qualifications in contact lenses or low vision into the programme by portfolio entry accompanied by details of how this learning has been applied and consolidated in the workplace. You may also study modules on other MSc programmes and bring those into this programme by negotiation. A key part to complete the MSc programme is the research modules. These modules will enable you to develop a sound knowledge and understanding of different research approaches and methods supporting you to plan and undertake your research dissertation."

The course takes at least two years part time and is suitable for graduates of the BSc (Hons) in Ophthalmic Dispensing collaborative degree that runs in partnership with CCCU and ABDO College along with other relevant degrees at 2i level.



During my tenure as chairman of the ABDO board of trustees I've often mentioned 'milestones' in my introductory piece for

Re: View. However, one of the most major milestones, indeed a 'master' milestone, both for ABDO College and the dispensing profession as a whole, is the announcement in this issue of the launch of a new Masters programme for dispensing opticians. This offers DOs a new dimension for personal career development and I encourage all those interested after reading the information within this issue, particularly former ABDO College students, to embrace this valuable opportunity.

I had the pleasure of briefly meeting Dan Palfrey when he received his

foundation degree some time ago and his research feature makes very interesting and useful reading. He mentions the important point that paediatric dispensing is a protected function and Alicia Thompson, in the 'Top tips for postgraduate study success' feature, also mentions that paediatric dispensing is a GOC core competency for DOs and the topic that relates directly to the research work she has undertaken with a view to attaining a PhD.

Another milestone is ABDO College's publication of the WCSM Courses prospectus. What both milestones highlight is the educational pathway now available now available to those seeking a structured career in optics, which is fully supported by courses from ABDO College, leading to qualifications from Level 2 up to Level 7.

**Huntly Taylor FBDO, Chairman,
ABDO College Board of Trustees**

Contents

2-3 Foundation Degree awards event

4-5 Profile feature – Daniel Palfrey

6-10 Can the academic performance of children be improved by wearing spectacles?

11-13 Top tips for postgraduate study success

ABDO College

Godmersham Park, Godmersham, Canterbury, Kent CT4 7DT

tel: 01227 738 829 option 1 | fax: 01227 733 910

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

Regulated by the
General Optical Council
www.optical.org

Foundation Degree awards event

On the 8th September, ABDO College held its sixth Foundation Degree awards event for students attending Godmersham on their final 3rd year block release session. Hosted by College Principal, Jo Underwood, the successful students were awarded their Canterbury Christ Church University (CCCU) foundation degree certificates by Professor Kate Springett (Head of the School of Applied Health Professions at CCCU) and Huntly Taylor (Chairman of the ABDO College board of trustees).





Following the awards presentation the event concluded with a celebration party.



Daniel Palfrey

We find out about Daniel and his research

This issue's research paper is the work of Daniel Palfrey, who qualified as a DO in 2014 and practices in the Leckwith branch of Specsavers in Cardiff.



Daniel Palfrey receiving his Foundation Degree from Huntly Taylor (Chairman, ABDO College Board of Trustees)

Dan explains how he entered the world of optics. He says, "I was simply looking for a new job! I have always worked in retail, and my previous job was in an outdoor clothing and equipment store. I was sending out applications, and Specsavers were the first to reply. When I started work I found that there were more similarities in the two jobs than I had imagined: my previous work meant that I had to understand the customer's needs and come up with

a product that met their needs, whether they wanted a rucksack and boots that would take them round the globe or for weekend walks. Meeting the customer need for spectacles involves the same type of understanding." Dan continues, "I worked as an optical assistant for three to four years. There were a couple of qualified dispensing opticians where I worked who were inspirational figures for me. The work they did was interesting, they could answer every question they

were asked by customers or other staff, and I wanted to be like them." Signing up for the DO course was a logical next step for Dan. He says, "I wanted to know the science behind what we were doing and have a better understanding of what the numbers and figures meant. I wanted to end up like my colleagues and be the kind of person who could answer the questions."

Dan studied with ABDO College via block release. Discussing his experience of combining work and study, he says, "It wasn't easy to do both, but I never felt overwhelmed, I just had to keep an hour or two a week set aside for fun! Block release worked really well for me: I'm even thinking of taking the same approach for driving lessons and booking to go away for a week to learn to drive! For me, the toughest bits of the course was essay writing, I'm more of a numbers person. My first essay was awful, I scraped a pass, but my final piece was awarded a first, I learnt a lot along the way. For me, and I suspect for many students, the best bits were the social elements, and I don't just mean nights out! Going on block for two weeks and learning with people who are interested like you are was a really positive way to do things. The lecturers are great, the area around ABDO College is fantastic, the course structure worked well for me."

Every student on the BSc (Hons) course has to write a dissertation for their final year project, and choosing the topic can be tricky. Dan described how he narrowed down his choice and what he discovered: "I brainstormed a few things I was interested in. I enjoyed

paediatric dispensing, you get a special feel-good feeling when a child's face lights up when you put on their new specs. I focussed on that topic. Another colleague was looking at a different aspect of paediatric dispensing and I looked at his ideas too. The question came to me, is vision a key factor in achieving at school? I scanned the research and discovered that actually there wasn't a lot of research focussed on the topic, but plenty of papers that hint at the need for this work to be done. One of the questions that arose, as I did my research, was why is no-one studying the effects of poor sight on children's learning outcomes. I found a lot of pointers that do indicate that poor vision affects education. Overall, all the signs are there, but the lack of research is a problem. I found indications that children with

Dan has some practical suggestions for DOs based on his findings: "When a child comes in to collect specs, spend time with them and their parent explaining the importance of spectacle wear. You need to convey, particularly to the parents of young children, that wearing specs is critical, not only during the eye's development period but also because it could affect their educational achievements into the future."

Since completing his studies, Dan has gone on to become manager of a new practice. He says, "I'm enjoying managing a store. When I graduated I was interested in the CLO or Low Vision Honours courses, or even going on to complete a Masters, but right now I'm enjoying putting my skills to practical use. My main influence and help in succeeding in my course was the other

When I graduated I was interested in the CLO or Low Vision Honours courses, or even going on to complete a Masters, but right now I'm enjoying putting my skills to practical use. My main influence and help in succeeding in my course was the other DOs around me and those a year or two ahead of me.

hypermetropia in particular don't do as well as those who are myopic or emmetropic. It may be that, with the extra effort to focus on near work, their whole foundation of reading may be weak, and this should be examined in future research."

DOs around me and those a year or two ahead of me. Seeing all the work they were doing really interested and inspired me, and I feel that now I'm in the position where I can answer questions that staff and customers bring to me. I like being the one who can help."

Official ABDO College sponsors

The ABDO College Board of Trustees and staff would like to thank its official sponsors for their generous and continued support:

BiB Ophthalmic Instruments

Bierley

Carl Zeiss Vision UK Ltd

Contamac Ltd

Essilor Ltd

Norville

Optinet Limited

Rodenstock (UK) Ltd

Signet Armorlite Europe

**The Worshipful Company
of Spectacle Makers**

For further information on ABDO College sponsorship opportunities contact Michael R Potter FBDO on 01227 733 913 or email at mpotter@abdo.org.uk.

Can the academic performance of children be improved

By Daniel Palfrey BSc(Hons) FBDO

People read by converting words into recognised sounds and learning to read is a crucial step towards educational achievement. Simons¹ broke down the process of learning to read into three important stages (see Fig. 1), the first being where the subject must ‘see’ the letters on the page and translate these into their appropriate sounds where they take on meaning. The second stage involves building on this ability by practicing reading as much as possible in order to assemble a collection of known words. By doing this, reading becomes quicker as words will be recognised without decoding each individual letter. Reading fluency is finally achieved when a reader is able to understand a sentence through knowledge of context without having to decode each word or letter.

Clearly it can be seen that if one were to fail to grasp the vital first stage then reading a whole page is going to be troublesome. Similarly if one is unable to read a page quickly at stage two they cannot be expected to read whole books particularly as more complex ideas begin to be expressed and text size shrinks in higher education and adult life¹.

The link between reading ability and vision is undisputed in the literature. The American Optometric Association states clear vision is needed to ‘thrive’ in the classroom² and the World Health Organisation (WHO) advise that poor vision has lasting consequences on a child’s educational and employment opportunities following them into adulthood³, the consequences of which affect the economy and society as a whole.

In fact visual status of a child is a better predictor of their academic performance than race or socio-economic status⁴.

A recent meeting of educational and sensory experts found that communication disorders were associated with sensory impairments such as poor vision. As vision, language and literacy are key features of modern day communication, they agreed with other researchers that untreated communication disorders can lead to poorer educational outcomes for affected children⁵.

Simons lists conditions which often interfere with reading ability and includes binocular vision anomalies such as fixation disparity (especially near exophoria) and refractive error (RE), specifically hypermetropia. The interference caused by these anomalies is itself categorised into two types; perceptual (caused by

Stage	Age (years)	Type of reading	Size of print	Volume of reading	Distance of focus	Interference typically affecting performance	Skills required
One	5 – 8	Bottom-up	Large	Low	Near and far	Perceptual	Physical ‘seeing’ of letters and words
Two	9 – 12	Mix of bottom-up and top-down, leaning more towards top-down as age increases	Medium	Mid (increases with age)	Near	Perceptual and functional efficiency	Volume of reading required to build up breadth of knowledge/experience of words and context
Three	13 – 22	Top-down	Small	High	Near	Functional efficiency	Understanding meaning of whole sentences is possible without fully reading each word due to knowledge of context

Fig. 1: Simons’ reading stages (Simons 1991)

by wearing spectacles?

blurred vision making it difficult to see letters) and functional efficiency (caused by accommodative strain or binocular vision anomalies) which has more to do with the effort that must be exerted to see rather than the quality of vision¹.

vision based purely around the mathematics of visual optics. Using that rule, unaided vision of 6/18 would equate to a spherical error of ± 1.00 to $\pm 1.25\text{D}$ ¹³. Stewart *et al* gives a similar value of $\pm 1.50\text{D}$ for significant spherical errors¹⁴.

A study of over 7,000 British children found that those with severe developmental coordination disorder had a higher chance of having abnormalities in ocular alignment, binocular vision and RE.

Many other studies are unanimous in one key area; that of hypermetropia being strongly linked to developmental and educational deficiencies. Hypermetropic children were found to have poor reading speeds^{1,6,7,8} academic underachievement^{9,10} reduced visual acuity (VA)^{11,12} higher prevalence of strabismus¹², poor motor skills including manual dexterity¹¹, poor word recognition and lower Intelligence Quotient (IQ)⁸ compared with their emmetropic peers.

A study of over 7,000 British children found that those with severe developmental coordination disorder had a higher chance of having abnormalities in ocular alignment, binocular vision and RE.

Researchers vary over their definitions of significant RE as shown in Fig. 2. The WHO considers a RE to be significant if resulting in an uncorrected vision of 6/18 or lower³. Tunnaclyffe gives a 'rule of thumb' which can be used in practice to estimate a patient's RE from their unaided

At age 5–6, Leat recommends prescribing for hypermetropia if $\geq +1.50\text{D}$; a similar figure to those given above but at younger ages she recommends only prescribing a partial correction, stating that children don't need the full correction for clear vision (due to accommodation) and that emmetropisation isn't yet complete and leaving some hypermetropia uncorrected continues to stimulate this, however myopia should be corrected in full¹⁵.

The evidence suggesting this course of action leaves something to be desired as it comes from mostly animal studies and clinical anecdote, the few human trials looking at emmetropisation have not provided any consistent way of predicting which child will emmetropise and which won't¹⁵. Furthermore, a study performed on over 5,000 British children finding that hypermetropes who were left untreated at 11 months old showed reduced VA when followed up three years later¹². The same study found that

even hypermetropes who were treated with correction but not fully compliant still showed an improvement in VA at the follow up and that compliant wear of spectacles was incredibly important in reducing the development of strabismus and amblyopia.

Leaving a hypermetrope partially corrected requires them to accommodate in order to bring light into clear focus at the macula. Children typically have a large reserve of accommodation ($>14.00\text{D}$ below 10 years of age) and humans in general are able to exert around 2/3 of their accommodative reserve for long periods of time with little effort¹³ so unless the hypermetropia is large the child is unlikely to exhibit any symptoms¹⁵. This is a fine strategy in theory but in practice, the amount of accommodation required to see clearly depends on their RE as well as the working distance.

Consequently, this means that to read a very close object such as during early reading stages where letters must be closely inspected (and any



emmetropisation is at a minimum) a child must accommodate more. In the case of older children who are reading lots of smaller print this might mean bringing the text closer to increase its relative size. Either way the strain on the accommodation system is likely to lead to eye strain, slow progress or even an abject aversion to reading¹. The under-correction of hypermetropes could be causing more problems than it is supposedly solving.

It is clear that the definitions for ‘significant’ hypermetropia have moved towards higher values in recent years. Could this be that practitioners are used to giving partial corrections to the point where what they consider significant has changed? It is possible that the researchers have focussed too much on what is necessary for the patient to see and have forgotten about making vision comfortable.

The link between hypermetropia and

developmental deficiencies is unquestioned and has been known since the 1950s¹⁰ but numerous researchers have neglected to include myopic subjects in their work when looking at developmental problems. In fact many researchers have linked myopia with increased reading ability and IQ compared even to emmetropes^{7,8,10,16}.

The reason for myopes performing better at reading based tasks is likely down to their excellent close vision

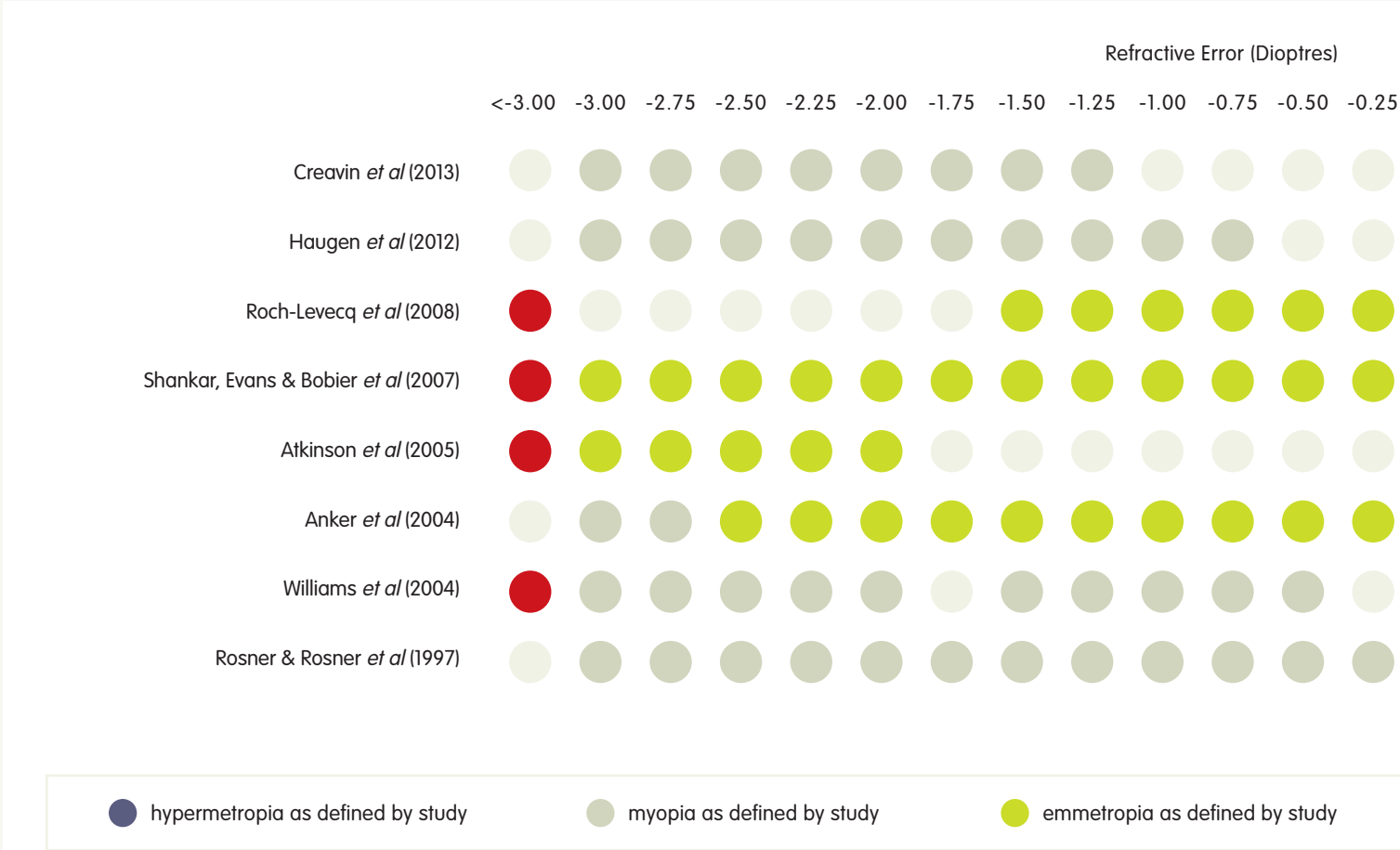
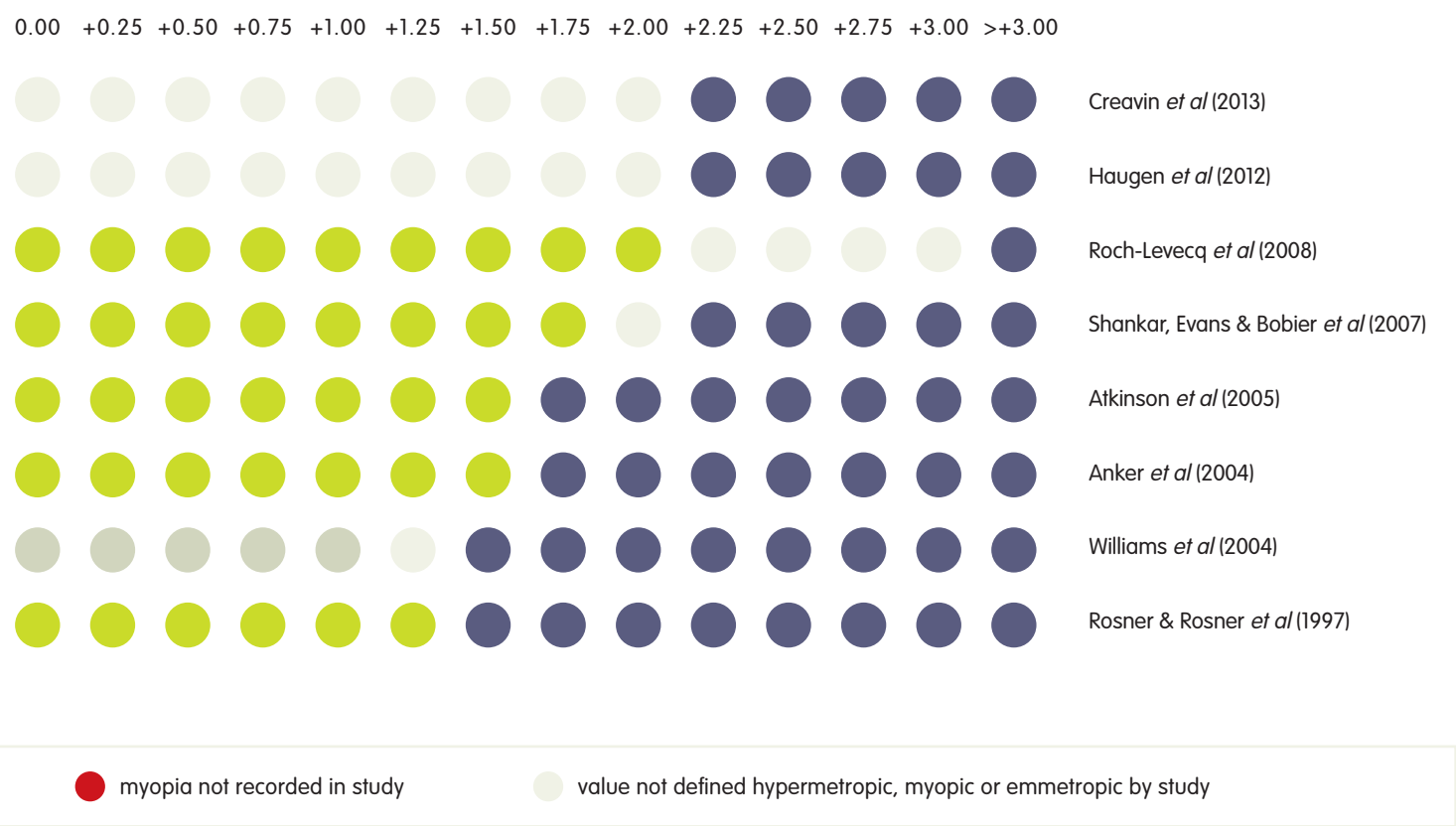


Fig. 2: Ametropia definitions graph)

ability, meaning at early reading stages they are able to examine text comfortably with little need for accommodation by simply bringing an object to their far point^{1,13}. Distance tasks are still important but school-age myopes are typically already wearing their full correction¹⁵ – effectively negating any visual interference from their RE whereas their hypermetropic classmates are lucky to have a partial correction. Myopes may also spend more time reading because they have

developed a preference to looking at close objects¹⁶ and as such will have had more practice at it by the time they reach later reading stages. Perhaps most importantly, it is unclear whether hypermetropia and developmental problems are causally linked or instead symptoms of a greater underlying neurological disorder which myopes may not suffer from^{6,8}. Research is clearly needed into the causal root of RE, especially

hypermetropia so as to target that instead of the symptoms and forming a list of risk factors for this may help to reduce the prevalence in the population. Hopefully with the rise of degree-educated UK dispensing opticians (DOs), these professionals could have a more active role in guiding the research on which their practice is based¹⁷. It is also important to establish a guideline for when to prescribe in hypermetropia and by how much while



remembering that accommodative stress could still be causing interference on reading ability even if vision is clear^{7,12}.

When considering such a study, the question of ethics must also be raised – is it ethical to deprive children of a spectacle correction knowing that it may lead to amblyopia or a poorer educational outcome?

In an age of advancing patient-centred care¹⁸ it is entirely possible that adopting an approach where each child is tested as an individual could be the best solution. By spending more time testing the child (to include amplitude of accommodation, cycloplegic and non-cycloplegic examination) and offering more regular appointments (to monitor emmetropisation) a precise picture of the child's eye health can be built up and with it a more accurate prediction of academic outcome could be divined.

If spectacles are prescribed then compliance needs to be high so that the child benefits from the correction. This is an area which can easily be addressed by DOs in practice today. Paediatric dispensing is a protected function of DOs so they are ideally placed to handle this¹⁹. Better interaction with parents and schools could be crucial as children often feel pressure to not wear their spectacles in front of their peers²⁰. Regardless, this discussion may cause DOs to think twice the next time a parent asks if their child should be wearing their spectacles full time or in school.

REFERENCES

- 1 Simons, H. (1991) 'An Analysis of the Role of Vision Anomalies in Reading Interference' *Optometry & Vision Science* 70 (5), pp. 369–373 *Wolters Kluwer Health* [Online]. Available at: http://journals.lww.com/optvissci/Abstract/1993/05000/An_Analysis_of_the_Role_of_Vision_Anomalies_in.5.aspx (Accessed 13 July 2014).
- 2 Ethan, D. and Basch, C. E. (2008) 'Promoting Healthy Vision in Students: Progress and Challenges in Policy, Programs, and Research' *Journal of School Health* 78 (8), pp. 411–416 *Wiley Online Library* [Online]. Available at: <http://onlinelibrary.wiley.com/doi/10.1111/j.1746-1561.2008.00323.x/pdf> (Accessed 16 July 2014).
- 3 Resnikoff, S. Pascolini, D. Mariotti, S. P. and Pokharel, G. P. (2007) 'Global magnitude of visual impairment caused by uncorrected refractive errors in 2004' *Bulletin of the World Health Organization* 2008 (86), pp. 63–70 [Online]. Available at: <http://www.scielo.org/pdf/bwha/v86n1/17.pdf> (Accessed 13 July 2014).
- 4 Marshall, E. C. Meetz, R. and Harmon, L. L. (2010) 'Through our children's eyes – The public health impact of the vision screening requirements for Indiana school children' *Optometry* 81 (2), pp. 71–82 [Online]. Available at: [http://www.optometryjaoa.com/article/S1529-1839\(09\)00445-X/fulltext](http://www.optometryjaoa.com/article/S1529-1839(09)00445-X/fulltext) (Accessed 16 July 2014).
- 5 Skarżyński, H. and Piotrowska, A. (2011) 'Prevention of communication disorders – screening pre-school and school-age children for problems with hearing, vision and speech: European Consensus Statement' *Med Sci Monit.* 18 (4), pp. 17–21 *PubMed Central* [Online]. Available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3560814/> (Accessed 15 July 2014).
- 6 Thurston, A. (2014) 'The Potential Impact of Undiagnosed Vision Impairment on Reading Development in the Early Years of School' *International Journal of Disability, Development and Education* 61 (2) *Taylor & Francis Online* [Online]. Available at: <http://www.tandfonline.com/doi/full/10.1080/1034912X.2014.905060#U8hpJldvYI> (Accessed 13 July 2014).
- 7 Thurston, A. and Thurston, M. (2013) 'A Literature Review of Refractive Error and Its Potential Effect on Reading Attainment in the Early Years of School' *Optometry & Visual Performance* 1 (1), pp. 25–31 *Taylor & Francis Online* [Online]. Available at: http://www.ovjournal.org/uploads/2/3/8/9/23898265/ovp1-1_article_thurston_web.pdf (Accessed 13 July 2014).
- 8 Shankar, S. Evans, M. A. and Bobier, W. R. (2007) 'Hyperopia and Emergent Literacy of Young Children: Pilot Study' *Optometry and Vision Science* 84 (11), pp. 1031–1038 *Wolters Kluwer Health* [Online]. Available at: http://journals.lww.com/optvissci/Fulltext/2007/11000/Hyperopia_and_Emergent_Literacy_of_Young_Children_10.aspx (Accessed 14 July 2014).
- 9 Roch-Levecq, A. Brody, B. L. Thomas, R. G. and Brown, S. I. (2008) 'Ametropia, Preschoolers' Cognitive Abilities, and Effects of Spectacle Correction' *JAMA Ophthalmology* 126 (2), pp. 252–258 [Online]. Available at: <http://archophth.jamanetwork.com/article.aspx?articleid=420351> (Accessed 14 July 2014).
- 10 Rosner, J. and Rosner, J. (1997) 'The relationship between moderate hyperopia and academic achievement: how much plus is enough?' *J Am Optomn Assoc.* 68 (10), pp. 648–650 *PubMed Central* [Online]. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/9354056> (Accessed 14 July 2014).
- 11 Atkinson, J. Nardini, M. Anker, S. Braddick, O. Hughes, C. and Rae, S. (2005) 'Refractive errors in infancy predict reduced performance on the Movement Assessment Battery for Children at 3½ and 5½ years' *Developmental Medicine and Child Neurology* 47 (4) *Wiley Online Library* [Online]. Available at: <http://onlinelibrary.wiley.com/doi/10.1111/j.1469-8749.2005.tb01129.x/pdf> (Accessed 10th July 2014).
- 12 Anker, S. Atkinson, J. Braddick, O. Nardini, M. and Ehrlich, D. (2004) 'Non-cycloplegic refractive screening can identify infants whose visual outcome at 4 years is improved by spectacle correction' *Strabismus* 12 (4) *Informa Healthcare* [Online]. Available at: <http://informahealthcare.com/doi/abs/10.1080/09273970490517935> (Accessed 13th July 2014).
- 13 Tunncliffe (1993) *Introduction to Visual Optics*. 4th ed. London: ABDO
- 14 Stewart, C. E. Moseley, M. J. Fielder, A. R. and Stephens, D. A. (2004) 'Refractive adaptation in amblyopia: quantification of effect and implications for practice' *British Journal of Ophthalmology* 2004 (88), pp. 1552–1556 *BMJ* [Online]. Available at: <http://bjo.bmj.com/content/88/12/1552.full> (Accessed 15 July 2014).
- 15 Leat, S. J. (2011) 'To prescribe or not to prescribe? Guidelines for spectacle prescribing in infants and children' *Clinical and Experimental Optometry* 94 (6), pp. 514–527 *Wiley Online Library* [Online]. Available at: <http://onlinelibrary.wiley.com/doi/10.1111/j.1444-0938.2011.00600.x/full> (Accessed 16 July 2014).
- 16 Mutti, D. O. Mitchell, G. L. Moeschberger, M. L. Jones, L. A. and Zadnik, K. (2002) 'Parental Myopia, Near Work, School Achievement, and Children's Refractive Error' *Investigative Ophthalmology and Visual Science* 43 (12), pp. 3633–3640 [Online]. Available at: <http://www.iovs.org/content/43/12/3633.full.pdf+html> (Accessed 16 July 2014).
- 17 Canterbury Christchurch University. (2008) *New degree route for dispensing opticians* [Online]. Available at: <http://www.canterbury.ac.uk/news/newsrelease.asp?newsPk=1172> (Accessed 17 July 2014).
- 18 Stuart, M. (2001) 'Towards a global definition of patient centred care' *British Medical Journal* 24 (322) [Online]. Available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1119673/pdf/444.pdf> (Accessed 17 July 2014).
- 19 College of Optometrists (2012) *Guidelines: The Sale and Supply of Spectacles* [Online]. Available at: <http://www.college-optometrists.org/download.cfm/docid/A3928149-829B-4E27-A7A4A6F7A942CFE7> (Accessed 18 July 2014).
- 20 Farmer, M. (2012) 'Spectacle wear compliance' *Optician* November 2012 [Online]. Available at: <https://s3-eu-west-1.amazonaws.com/rbi-communities/wp-content/uploads/importedimages/22-specs-and-kids.pdf> (Accessed 18 July 2014).

Top tips for postgraduate study success

Have you thought about doing a postgraduate qualification, a Masters or doctorate? Opportunities are opening up for dispensing opticians with the new Masters course at ABDO College in association with Canterbury Christ Church University, and a number of dispensing opticians have now embarked on a professional doctorate or PhD too. In this feature, read tips on which courses might suit you and how to succeed with further study.

A postgraduate qualification can be your chance to pursue your professional interests to a specialist level. Whether you are interested in contact lenses or a particular aspect of dispensing you can focus your research project on something very specific and become an expert in the field. You will learn research skills as part of your course, and courses can now be combined with work in practice so you don't have to give up the day job!

Postgraduate courses can take between two and six years part time, and nowadays some can be studied remotely by distance learning or as short courses. With most you can pause or stop at Postgraduate Certificate, Postgraduate Diploma, or MSc level on your way to a doctorate.

Ant Blackman, senior lecturer at the School of Allied Health Professions at Canterbury Christ Church University (CCCU), explains the thinking behind the new CCCU/ABDO College MSc: "I have been impressed by some of the individual studies submitted by the BSc (Hons) students on our DO course and we are now in a position to be able to

offer an MSc for those students who wish to continue their studying beyond undergraduate; Gill Bickle is out trailblazer for this. Hopefully we can encourage DOs to sign up and get our profession conducting and publishing research." Ant himself is part way through a further qualification, the professional doctorate at Aston University. He says, "I graduated with SMC(Tech), FBDO (Hons) SLD and CL in short succession, then I started working at CCCU so I had a break from studying to get my head round my new role and a move to Kent. I felt the itch to get back to studying, not only to further my career, but also to keep my mind active as I love learning new things. Having a BSc (Hons) made it a lot easier to apply for post graduate course; the problem I had was finding the right course for me. It needed to be interesting enough to keep me engaged and

flexible to fit around my various jobs and other commitments." Ant took advantage of the stepped approach to achieving a taught qualification. He says, "I took it one step at a time by signing up for pairs of modules only. Once I had completed six modules (enough for a PGDip), I had to decide if I wanted to undertake a dissertation for the Masters, or complete another three modules to be able to progress to the thesis stage for the doctorate. I am currently putting my research proposal together, which is exciting and I look forward to getting the first of my 80,000 words down on paper!"

If you are confused by the different types of doctorate and which might suit you, Robert Cubbidge, senior lecturer at Aston University, says, "A PhD is purely research and usually would consist of a unique research question, predetermined with the supervisor who may have a grant to look at a particular issue. There might be six research projects to complete over a three year period – primarily directed by the student: you are self-directed, self-taught. You also have to do 90 hours of course work over the



three years which might involve attending research conferences and going on short courses about writing a thesis, for example. To apply for a PhD you generally need to have a degree, at least a 2i. However a professional qualification in contact lenses or low vision could allow you to do this too. PhDs can be completed part time over five to six years.” The other type of doctorate offered by Aston is the taught or professional doctorate leading to Doctor of Optometry or Doctor of Ophthalmic Science (D Oph Sci) qualifications. Robert says, “Because this is taught it is credit based just like an undergraduate degree. A typical module is 20 credits. All of the taught elements are at Masters level. You need 60 credits for a PGCert, 120 credits for a PGDip, 180 credits for the MSc as well as writing a dissertation which may be

a long literature review for a further 60 credits. To get the D Oph Sci you need to complete a long research project, perhaps equivalent to a third of what you might do for a PhD. You can enter a professional doctorate with a 2:2. If you don’t have a degree you may be able to prove that you have professional experience and be accepted with conditions about completing certain modules. The professional doctorate is part time and more geared to someone who works in practice. Some modules are compulsory, such as one in research methods. All lectures are via distance learning done at home and assessed via multiple choice questionnaires, essays and case reports uploaded online. You need to liaise with your supervisor during your research project but this can be done by email and Skype. Finally,

if you go all the way to the doctorate you have to attend the university for a viva. A professional doctorate is more appropriate if you want to remain in practice: it equips you to do practice based research whereas a PhD is more geared towards an academic career. ”

As well as allowing you to pursue an interest, your research project gives you the chance to have work published in a professional or peer reviewed journal and take forward professional kludge.

Alicia Thompson BSc(Hons) FBDO R (Hons) SLD SMC(Tech) is director of professional examinations for Association of British Dispensing Opticians and is currently undertaking a PhD at Aston. She adds to the reasons that more DOs need to move into research, saying, “We have to become a more evidence based profession. There is a lot of good knowledge out there but right now most of it is anecdotal. If more people carry out research the profession will have evidence for work works.” Alicia’s first tip for anyone who is considering postgraduate research study is to, “learn how to search literature properly – one of the main things of a doctorate is that your work contributes to the body of knowledge so you need to be able to assess what has been done, then you are in a position to add to or even rewrite knowledge.”

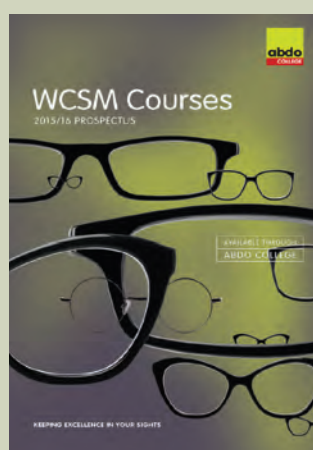
When it comes to choosing your topic for research you may have a subject that you are passionate about already. Alicia says, “I’ve been in practice for 20 years and have a passion for paediatric dispensing. In my role at ABDO I was

2015/16 WCSM Courses prospectus

ABDO College now provides training courses leading to the Worshipful Company of Spectacle Makers (WCSM) qualifications. WCSM qualifications lay a solid foundation for the development of essential optical skills and open up a clearly defined career pathway.

The WCSM courses available from ABDO College range from Level 2 Optical Support to Level 4 for Optical Technicians (and soon to be available Level 4 for Optical Assistants).

To obtain a copy of the 2015/16 WCSM Courses Prospectus, please contact the Courses Team at ABDO College on 01227 738 829 (Option 1), or email info@abdocollege.org.uk.



involved in writing core competencies for the GOC. We agreed to make paediatric dispensing a competency in its own right, which meant that I was looking at how a child's facial dimensions are very different to an adult, yet all too often frames are scaled down from those designed for adult faces. This generated the idea for my study which aims to come up with facial data for children of all ages so manufacturers can design frames for children. Already we know that there will be gender differences: girls grow faster sooner; variations depending on ethnicity; and special cases such as children with Down's syndrome. The study comprises a range of parts. As well as the measurements I have sent out a questionnaire designed to draw out issues with children frames and provide an evidence base rather than hearsay – people might say 'children's frames can be improved' but the questionnaire results will qualify that." If you are unsure about a topic, you can look at the areas of interest held by potential supervisors at the university, one of which may inspire you. Alicia explains the process she went through when applying for her doctorate: "I had an informal chat, formalised my proposal, and then I had an interview. Two years into the study, I have just had my qualifying viva which was a stressful but now I know that I am definitely on a PhD route. I have ethics approval and I am ready to start measuring." Alicia's doctorate is supported and funded by ABDO.

When considering applying for a course, think about how you will fit in

the work. Alicia says, "My role is extremely busy, I was concerned about the time issues, so the location was critical. I wanted to pick a university that was close to me. The good reputation for research was also important."

Alicia says, "Finding time to study has been the hardest part for me. I have the motivation and the passion but I juggle a full time role that takes me over the world as well as a family." Ant says, "In order to succeed you must be good at time management, deciding when you can put the hours in, be it at weekends, your day off, or as I did it, an hour or two in the evenings after dinner (I've missed a lot of TV so thank goodness for catch-up TV and Netflix!). I'm also lucky that I've been supported along the way by friends and family who have been accommodating; although

they are used to me studying a lot!" Another factor is the cost. Ant says, "The price of modules does vary between institutions. This may also determine how many modules you decide to undertake at any one time." Robert adds, "The D Oph Sci is fee paying – a PhD may come with funding if you take on a funded project." Summing up, Ant says, "Studying and working is hard; any of the students at ABDO College will know this, but support is available. Every university will have student support services and just because you are not on campus does not mean you cannot call upon these services. Do not be afraid to talk to your tutors or programme director if you have any concerns. Also, the good thing with modular learning is that you can always take a break and return later."

Find out more

If you have read this article and would like to take the next step, Ant Blackman advises, "First of all decide on the type of course you want to do. This is likely to be part-time for post people and distance or blended learning is easier to fit in around work and family life. Look at university web pages as well as websites such as UCAS (<https://www.ucas.com/ucas/postgraduate/postgraduate-study>) or Prospects (http://www.prospects.ac.uk/search_courses.htm). Read the prospectus for the course and contact the university with your questions."

Aston University Doctor of Ophthalmic Science:

<http://www.aston.ac.uk/study/postgraduate/taught-programmes/school/life-health-sciences/doctor-of-optometry/>

Canterbury Christchurch University MSc Health and Wellbeing:

<https://www.canterbury.ac.uk/study-here/courses/postgraduate/health-and-wellbeing.aspx>

City University MSc Advanced Practice in Health and Social Care (Clinical Optometry) or MRes Clinical Research:

<http://www.city.ac.uk/courses/postgraduate/advanced-practice-in-health-and-social-care-optometry>

ABDO College Bookshop

Make the ABDO College Bookshop your first choice:

- Dispensing, optometry, ophthalmology and contact lens books
- Rules, gauges and charts
- Essential publications for student DOs
- Useful revision guides
- British Standards publications

Supplying the optical profession worldwide

The ABDO College Bookshop provides an extensive selection of the most popular optical titles to the profession worldwide. Publications covering all aspects of ophthalmic optics – dispensing, optometry, ophthalmology, contact lenses, useful revision guides etc. – plus other products such as rules, gauges and charts are readily available and a fast, efficient and friendly service is always assured. The ABDO College Bookshop also offers BSI British Standards publications to ABDO members at a substantially discounted price.

Easy ordering and personalised service

The full range of publications and other products currently in stock can be viewed and ordered online via the ABDO College website (www.abdocollege.org.uk) or for more personalised service and advice contact Justin Hall, the ABDO College Bookshop Administrator, by telephone on 01227 733 904 or by email at jhall@abdocollege.org.uk.

ABDO College Bookshop

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