

## Evidence Based Practice in Ophthalmic Dispensing Webinar Q&A responses by Tina Arbon Black & Peter Black

1. Many patients do their research through internet sources. How does a patient distinguish between true & false information on the internet?  
 Firstly, it is always best to advise patients to seek advice from trusted professionals like their GP or eye care practitioner like an optometrist, contact lens optician or dispensing optician. If they have approached you to establish whether what they have found online is accurate your knowledge and skills enable you to challenge those spurious claims, as discussed in the webinar the CRAAP test is quite easy to remember and a useful tool in establishing if something is trustworthy. Listening to a patient's question and providing an answer based on a systematic scientific approach will ensure your answer will be understood and most importantly accepted.
  
2. Are you in a position to inform us what ABDO are doing to increase the level of research into subjects relevant to working Dispensing Opticians?  
 ABDO formed its own research fund a few years ago; however, it has been on hold due to COVID. In due course members including those undertaking professional doctorates (D Prof) or PhDs may be able to apply for grants towards research they are undertaking, and the Association envisages commissioning research in the future in the same way that the College of Optometrists does.
  
3. Could ABDO organise a way of getting data for research from practices to give independent results from manufacturers on topics e.g. myopia management.  
 We take this to mean research that is independent *of* manufacturers, which of course universities do all the time. It probably isn't ABDO's place to do this except by way of encouraging members to conduct their own research into their own databases. It is certainly true that companies often hold huge amounts of data from which a great many insights could be gained (and indeed are often used for marketing purposes). We do need to be careful however, that data is not biased - companies with unique sales propositions attract different demographics in terms of socioeconomic status, age profiles etc. The GOS system, although undoubtedly still not representative might be another rich source of data and it would be good to see GOS capture more information relating to low vision for example by recording visual acuities on prescriptions (which would also of course help dispensing opticians dealing with external prescriptions and would surely be in the patient's best interests).
  
4. Do articles generally say which type of average they have used?  
 Most articles will state which average has been used but also look at the data analysis as different statistical test are performed, parametric and non-parametric tests but do not let these put you off just remember how data is collected, collated and results presented provides the researcher with the ability to make inferences and draw conclusion.
  
5. Do you think research should be done on the effect of coronavirus on school children and office workers working from home?  
 There is already a huge amount of research in this area: search "COVID 19 effect on children" in Google Scholar to see for yourself and review the evidence. Of more interest might be the effect of the pandemic on optical practice and rates of sight loss. There is research about the effect it has had on ophthalmology. In short, research gets done on what people are interested in and any members who feel they would like to get into research should look seriously at doing further qualifications.

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6. How often would you recommend researching into new evidence? Do you think as qualified professionals we should make say half an hour a week to research new info/studies?

Part of Standards of Practice for Optometrist and Dispensing Opticians is keeping knowledge and skills up to date, so it is a requirement for all registrants. I do think it is important to allow time for this on a regular basis, you can also sign up to resources that alert you to new research for example <https://www.practiceupdate.com/explore/> which is an online free resource for healthcare professionals tailored to your areas of interest.

7. Now would you collate any evidence you find...what is the best way of storing the info in practice?

I like to keep all my journals, and every often I go through them and cut out / print off articles on the same topic that I am interested in and keep them together. A better way is probably to have folders on your computer - In the next CET/CPD cycle our "learning objectives" will become more important and it will be worth keeping files relating to topics covered. Especially as we will be able to get credit for topics of interest that are not necessarily CET accredited - for example if you go to a talk on diabetes, or infection control, or talk on sight loss by a local charity that is not CET accredited it will be up to you to maintain proof that you attended and of what you learned.

For those conducting further study, specific software is available to assist with the storage and organisation of reference material.

8. Is it fair to say that presentations CET given on products manufactured by optical companies should be disregarded?

No, I certainly would not disregard company information. Some of the most talented researchers work for or in behalf of companies, and it is great companies seek to justify their product claims with robust and often impartial research. In a sense you should treat all research the same, examining it on its merits and giving weight to the hierarchy of evidence - has the same result been found multiple times by several researchers for example. Be aware that some research is inherently difficult and fraught with ethical problems (where the subjects are children for example) so it isn't always possible to get a double blind randomised controlled trial, let alone a meta-analysis or systemic review, and case studies may be all that is available. A little scepticism is important, for example in one of the myopia control studies there is a claim that in 6.25% of patients (or eyes actually) the myopia was actually reversed to some degree by the intervention. This seems highly unlikely - how can an eye that is too long suddenly get shorter for example - at the very least it is worthy of further investigation - for example were 6% of children over-minussed at their initial baseline consultation and their second consultation a more accurate refraction? Would objective auto refraction under cycloplegia have yielded different results?

9. What is the best way to compare lens manufacturer's claims?

Always ask them on what evidence they base their claims, and if they have any research, you can review. Check their references.

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**10. What is the scientifically accepted form? i.e. average?**

The point we were trying to make was that the form of average used depends on the message you are trying to get across which is why it is important to read more than just the abstract to drill down a little further into the meaning.

**11. What topic areas do Tina and Peter think need research conducting by DOs that relate specifically to dispensing?**

I think it would be a good opportunity for dispensing opticians to follow on from the research 'A comparison of spectacles purchased online and in UK optometry practice' (Alderson et al. 2016)

[https://journals.lww.com/optvissci/Fulltext/2016/10000/A\\_Comparison\\_of\\_Spectacles\\_Purchased\\_Online\\_and\\_in.4.aspx](https://journals.lww.com/optvissci/Fulltext/2016/10000/A_Comparison_of_Spectacles_Purchased_Online_and_in.4.aspx) open access.

Another important area for research is the new technology regarding facial scanning apps and its application with regard to bespoke frame manufacture, as these are areas that would promote the importance of the role of dispensing opticians.

The research evidence into the risks of contact lens wear is now over 20 years old and needs updating, especially as OrthoK is a sleep-in modality, and daily disposables are so much more prevalent.

**12. What work is being done with manufacturers to base their info on evidence-based research?**

Where manufacturers perform research or commission others to carry it out, they will be fully familiar with the protocols, however bias can creep in when the research is relied upon to demonstrate some aspect of superiority over a competitor. It is for the practitioner to appraise the research fully rather than simply accepting the edited highlights.

**13. Would starting some evidence-based research from questions posed to practices across the UK be a useful way to create useful information and further skill and interest in EBD? Thoughts welcome.**

As busy practitioners, we are likely to be appraising the research of others rather than conducting it ourselves unless we are embarking upon a course of further study. There are, however, aspects of research that can be carried out in practice. For example, there are papers relating to the accuracy of taking a PD, which could be replicated in practice very simply by asking all practitioners and optical assistants to measure the PD of the same person and anonymously record their measurements without disclosing them. Different methods, iPad, pupillometer, PD rule could be employed and also compared. Last time we did this at a CET meeting using a model head the measurements taken by over 100 delegates varied by a staggering 11mm!

**14. Having been a dispensing optician for 35 years, I have primarily relied on the ABDO magazine and in the last decade CET to keep me up to date. Does this mean ABDO intends to give us less information on developments? Using Google does seem very long-winded and not as time efficient!!**

ABDO is an excellent source of trustworthy information and there is no intention to provide less information, but you do have to use additional sources particularly for up-to-date clinical research, which, as mentioned above, is a requirement. Google

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Scholar is one example of an academic search engine, there are other academic databases that can also be used, and you get quicker with practice.

15. I'm not feeling too inspired. I totally agree with research but why can't we just stick to reading articles by the ABDO trusted authors. I'm in my mid 50's, have been a DO 35+ years, knowing me, and google scholar, for example, will be very time consuming and end up trying to work out which evidence is poor!! Plus I will probably miss the all-important evidence. I've always thought keeping updated with products and research was one off most important reasons I'm a member of ABDO.

The responsibility is with each registrant to keep up to date, ABDO could not undertake to review every piece of research but in ABDO Advice and Guidelines there is considerable information on key topics. Subscribing to other journals - Optician, OT for example, and also investing in the occasional textbook gives different viewpoints. There are also trusted websites - NHS and various sight loss charities for example, as well as the ones mentioned in the CET - Cochrane, PubMed etc.

16. In practice we have the college of optometry leaflets for eye conditions, when we print from Google would it be copyright if we give it to a cx?

We wouldn't recommend printing from Google (as it could be nonsense), or even Google Scholar (as it is likely that academic research is of no real benefit to the general public without some training in the subject matter), however the NHS, ABDO, College of Optometrists and the major sight loss charities are all good sources. Manufacturers' website are also good sources of information - do bear in mind that if something is in print it is likely to have been fact-checked by lawyers but do pay attention to the meaning of what is written.

17. How would you personally answer a patient if they ask "does wearing glasses make my vision worse?"

This is a tricky one. We have always believed that eyes would deteriorate come what may whether you wore your specs or not and that this perception is really a matter of knowing what you are missing and being therefore disappointed at your visual performance without specs. However, the research into myopia management seems to suggest that correcting myopia may lead to greater progression, although the evidence also shows undercorrection can lead to an increase in myopia.

18. If researching something specific for a patient do you have to document on the record where the evidence is from?

It is probably advisable, and in any event, we'd certainly recommend providing the patient with your source of information.

19. What would be your opinion to ABDO (and/or team of people best knowledge) to develop communications with best-updated evidence on common aspects, which occur in day-to-day general optical practice? Individuals can do this work but it is likely to be less consistent and possibly not as reliable? Your thoughts welcome. Overall, it is our own individual responsibility to research the things that are relevant to us when they occur. Most of us come across a number of "once in a lifetime" situations from time to time - the +35.00DS, the 13.00D cyl, a patient who is allergic to all plastics and nickel, particular postural problems etc. and it is then our "detective" and problem solving skills come to the fore.

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When problems start surfacing regularly or there is some controversy then the academic community will generally already be conducting research and it is up to us to keep up to date with it. For DOs this is difficult since most of us don't currently have access to the academic databases that are required - perhaps this is something that could be provided to GOS contractors by the NHS or could be a future benefit of ABDO membership in the same way British Standards has been added recently.

**20. Do you have to do BSc first before a DProf?**

That depends and you would be best advised to contact the university you are interested in applying to. I (PB) was able to do a Master's degree without first doing a BSc but had to get employer's references and provide a written testimonial by way of assessment of my suitability. It comes down partly to finance but in retrospect I would have been better doing a Bachelors' degree first as I lacked the research skills and had a good deal of work to do to catch up with my classmates.

**21. How long is the DProf course?**

That depends on the modality but probably between 3 and 7 years. Look for a course that offers milestone qualifications such as post grad certificate, post grad diploma, MSc on the way. That way you are not committed financially, can check that you are suited to further study and if you do have to cut short your studies would have something to show for it.

**22. So at one point FBDO was said to be equal to a bachelor jobs so would this enable you to start a DProf?**

FBDO is a level 6 recognised diploma however, it not as "large" a qualification as a BSc (Hons) which is at the same level but has more learning credits at that level.

**23. What are the career advantages / salary incentives for studying for DProf?**

There is no guarantee of any advantage but it is what you make of it. For example, having a degree might be a requirement in a large retailer for you to become an area manager or a general store manager if you fancied a change from optics. At Masters level and Doctorate level then there are opportunities in teaching and research.

It may be that you have interest in areas of study that are not 'clinical', such as business. These and other areas may be considered useful within your area of employment and therefore also relative to career progression.

**24. Are DProfs available to DOs? Peter said for Optometry, but is this something DOs can do?**

The D Prof in Optometry is open to DOs, but you may need to work through other qualifications on the way, and you end up with Doctor of Ophthalmic Science DOphSc at Aston. At UCLan you can do professional doctorates in areas such as healthcare management, medical education, professional practice, etc. and tailor them to your own requirements. Course content is often negotiated although there will be compulsory elements a lot of the course is what you choose to do. The best bet is to contact a few universities via their websites and have a chat. There are often open events (virtual) you can attend too. If you want / need to do a BSc first then the Canterbury Christ Church "top up" degree is far and away the best value for money and being in conjunction with ABDO College is the most tailored to the



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day job of DOs and CLOs – again there are elective modules where you can choose what interests you from a menu of options.

25. I'm both a DO and Optometrist, so would be interested to see how long the DProf would take. I already have a PG Dip in Practitioner research.  
Contact the university you are interested in – this is Aston's offering: <https://www.aston.ac.uk/study/courses/doctor-of-optometry-doctor-of-ophthalmic-science-doptom-dophsc> and they appear to be the only D Optom on offer in the UK at the moment. UCLan offer a DProf in Health that can easily be adapted to any health discipline including optics <https://www.uclan.ac.uk/postgraduate-research/courses/health-dprof> you can also get credit for recent courses (e.g. WOPEC) and protracted amounts of CET which can cut down the time taken (and the cost) if you can demonstrate recent prior learning.
26. What is available to study after FBDO qualification, apart from CLO?  
The CCCU “Top up degree” via ABDO College is the option we'd recommend, but there is also low vision and leadership and management qualifications available from ABDO and WOPEC (via your LOC), or you could think about management/business – perhaps an MBA.
27. How do you see the role of a Dispensing Optician changing in the next 10years?  
When we qualified over 30 years ago, right on the cusp of deregulation, we were told that our profession was about to die and there have been several predictions of this nature over the years but we are still here. Further deregulation and / technology could be the end for optics as we know it however having a transferrable qualification like a BSc in Vision Science or a higher qualification has currency in other industries and gives you options. If, as we expect, optics is still employing DOs in the decades to come a further qualification is never wasted – it can make you better at your job, may enable promotion or opportunities with another employer, or perhaps give you the confidence to open your own business. We are also seeing healthcare roles extended – low vision services are sure to be in ever-increasing demand going forward and who knows refraction might also become a reality.
28. Lack of so many diabetic screeners. When are they pumping up the 11 pounds!!  
Ridiculous. They want us to help hospitals but want us to make losses! Random question I know!  
This is not our field, however at this price volume is required – we suspect “they” are different depending on where you are – perhaps think about selling some of the new electronic screening technology for diabetics – screening gives you a pipeline... also why not train as a grader and increase the revenue stream that way. Becoming an expert in diabetes by embracing the research evidence and current thinking, as well as the public health issues is a great place to start.
29. We provide value but are not valued...  
Further study increases your value and may result in us being valued more. Many diploma-based professions such as nursing have moved to become graduate professions and have never looked back – should ophthalmic dispensing go the same way?