

Continuing education and training for GOC registrants: an analysis of access and perceived influence on practice

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1 CET point for UK optometrists

Introduction and background

To practise in the UK, optometrists and dispensing opticians must be registered with the General Optical Council (GOC) and a mandatory quantity of continuing education and training (CET) must be undertaken (GOC 2016). For the purposes of this paper, the term 'continuing education and training' is considered interchangeable with 'continuing professional development', 'continuing education' and 'continuing professional education'.

The 1958 Opticians Act defined the powers and duties of the GOC. In 1989 the Opticians Act was consolidated and then, in 2005, changes to this legislation saw the introduction of mandatory CET for all full GOC registrants. Exercising the powers provided to them, the GOC established its Continuing Education and Training Rules (GOC 2006). These rules set out the framework of the initial CET scheme for all registrants and established the CET points system.

In 2007 the UK Secretary of State for Health directed 'revalidation necessary for all health professionals' (Department of Health 2007). A GOC consultation followed and resulted in the establishment of enhanced CET, which included preventing the risk associated with 'professionally isolated' practitioners by introducing mandatory peer discussion for those dispensing opticians held on the GOC register with a contact lens speciality and for all optometrists (Directorate of Optometric Continuing Education and Training (DOCET) 2016; GOC 2013). Additionally a minimum amount of CET must now be interactive for all registrants.

Interactive forms of education, unless provided within the working environment or otherwise funded, usually require some form of financial expenditure such as travel costs. Interactive distance-learning CET is also available from some providers: DOCET is a committee administered by the College of Optometrists and set up by the Department of Health to oversee government funding set aside for the provision of CET for all UK-registered optometrists. Via the DOCET website optometrists can access free-of-charge interactive CET courses in addition to non-interactive courses (DOCET 2018). This education is not available to

dispensing opticians, though some educational resources, such as peer discussion cases, are available to download free of charge. Other providers, such as Eyecare, have interactive online CET sessions available to all GOC registrants for a fee (Eyecare 2018).

Rural location and financial implications of partial or total self-funding have been identified as barriers to achieving continuing professional education for Queensland nurses, and lack of support from employers was cited by over 60% (Hegney et al. 2010). Poor employer support for continuing education and continuing professional development was also identified as a barrier for occupational health nurses in Japan, as well as lack of government regulation for the profession (Mizuno-Lewis et al. 2014). Inequality in access to continuing professional education has been identified for UK nurses who work parttime, work nights, have family responsibilities and work outside the NHS (Nolan et al. 2000).

Under GOC regulation the role of the optometrist is fully regulated. However, dispensing opticians have experienced partial deregulation (The Opticians Act 1989) and optical workforces now include non-qualified employees involved in spectacle dispensing.

In 2004, with the onset of compulsory CET approaching, the Department of Health announced it would make ex gratia payments for optometrists who carry out General Ophthalmic Service (GOS) sight tests, towards completing compulsory CET (Optician 2005). These payments, which are intended to compensate optometrists for their time in undertaking CET, are made from the GOS budget and restrictions apply, for example, the optometrist must have carried out GOS sight tests in the year that the payment is being claimed. Additionally, the allowance is only paid directly to the GOS contractor and therefore, in England, Scotland and Wales, the optometrist's employer. These two factors raise issues for both locum and hospital optometrists in claiming a CET allowance (Association of Optometrists (AOP) 2017a). The Association of British Dispensing Opticians (ABDO) and the Optical Confederation have been unable to secure any Department of Health funding to assist dispensing opticians in completing CET (ABDO, n.d.).

Some optical employers do offer CET to their GOC-registered employees through a variety of means, although currently there is no evidence showing how employers across the optical industry support optometrists and dispensing opticians to complete CET or how personal lifestyle commitments, travel and cost impact access.

Social learning has been shown to be effective in healthcare professional education. Skills workshops, structured to foster interaction and use problem-based learning whilst limiting lecturing, have been found to be responsible for a large part of continuing medical education effectiveness (Dionysopoulos et al. 2014). New Zealand-based optometrists felt educational interactions with colleagues to be most effective and lectures, reporting research results they couldn't apply directly to clinical practice, least effective (Jacobs and Scott 1990). Case-based discussion by UK optometrists was found to increase participants' self-confidence in referrals and impact on changes in clinical practice; it was preferred to 'distance-learning or lectures' and 'valued confirmation of current practice through discussion of clinical decisions with peers and sharing experiences' (Bullock et al. 2014, p. 619). However, in his literature examination, Wood (1998) found it was difficult to prove that continuing professional education had a direct influence on the quality of patient care delivered by UK nurses, though improved communication

skills, enhanced individualised care and research-centred practice were identified. Nurses self-reported increased confidence, knowledge, self-awareness and awareness of professional issues.

The aims of this research were to: analyse how GOC registrants access CET; evaluate which methods of access are perceived easy or difficult and identify access barriers; determine which forms are considered engaging and which are perceived to influence clinical practice; and formulate any recommendations that may be beneficial when considering future provision of optometric continuing professional education. Due to the lack of Department of Health funding for dispensing opticians to enable completion of CET, and the greater potential for barriers this may cause, the survey sample was taken from within this population.

Methods

A web-based, mixed-method questionnaire survey was distributed via social media. Quantitative ordinal data were collected using three Likert scales, to allow analysis of: how easy GOC registrants find accessing CET through the various methods; how engaging GOC registrants find the different forms of CET; and how influential on their clinical practice GOC registrants perceive the different forms of CET.

Table 1. Compensated forms of interactive continuing education and training (CET) and methods of access*

Access method	Forms of interactive CET											Total
	L	IRL	PDG	OPDG	OLT	PS	SW	DW	IVRT	ITDL	IDL	
EPW	11	6	24	4	n/a	n/a	3	10	6	7	7	78
EPEW	16	5	8	n/a	1	9	4	10	2	1	n/a	56
AAE	38	n/a	34	n/a	6	3	28	34	23	5	n/a	171
ACS	23	n/a	13	n/a	n/a	n/a	15	18	8	1	n/a	78
MPW	10	4	7	2	n/a	n/a	3	1	0	1	3	31
MPEW	26	10	15	0	18	1	11	14	2	2	1	100
WEB	14	8	n/a	0	n/a	n/a	n/a	2	0	2	n/a	26
VC	n/a	0	n/a	0	n/a	n/a	n/a	0	0	0	n/a	0
ODF	n/a	2	n/a	1	n/a	n/a	n/a	n/a	0	1	n/a	4
PO	3	4	n/a	0	n/a	n/a	n/a	0	2	4	1	14
SEC	5	2	5	1	1	n/a	4	2	0	0	n/a	20
OOIB	27	10	15	0	2	25	6	17	8	4	n/a	114
IJ	n/a	1	n/a	1	n/a	n/a	n/a	n/a	12	25	25	64
OA	1	n/a	3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1	5
O	1	2	0	0	0	0	1	0	0	1	0	5
NTP	8	43	9	65	48	38	23	14	28	32	42	
Total (excluding NTP)	175	54	124	9	28	38	75	108	63	54	38	

*For abbreviations, see Table 2. NTP, not taken part.

Table 2. Key abbreviations used in findings tables, figures and graphs for surveyed methods of opticians accessing continuing education and training (CET) and which interactive and non-interactive forms of continuing education and training were completed

Method of accessing CET	Abbreviation for tabulated findings
Employer CET provision at place of work	EPW
Employer CET provision external to place of work	EPEW
ABDO area event	AAE
ABDO conference CET session	ACS
Manufacturer CET provided at place of work	MPW
Manufacturer CET provided external to work	MPEW
Webinar	WEB
Video conference	VC
Online discussion forum	ODF
Paid for CET online	PO
Provided as part of a supervised educational course	SEC
Other optical industry-based organised event	OOIB
Industry journal	IJ
Other	O
Organiser/author	OA
Form of CET	
Interactive CET	
Lecture	L
Interactive recorded lecture	IRL
Peer review/discussion group	PDG
Online peer discussion group	OPDG
Optical lab tour	OLT
Poster session	PS
Skills workshop	SW
Discussion workshop	DW
Interactive visual recognition test	IVRT
Interactive text-based distance learning	ITDL
Interactive distance learning	IDL
Non-interactive CET	
Recorded lectures	RL
Visual recognition test	VR
Text-based distance learning	TDL
Distance learning	DL

Qualitative data were collected in relation to any negative responses provided for the three Likert scale questions. This was to enable any barriers to accessing CET to be uncovered; examine the responses to assist in understanding the results of the quantitative data; and help to formulate conclusions and recommendations. Information collected in the questionnaire related to the 2013–2015 GOC-designated CET cycle. The questionnaire survey was piloted in a sample of the relevant population.

The sample population was sought from GOC-registered dispensing opticians who were practising in the UK. To gain a true representation of the profession population it was desirable to gain responses matching the workforce in the following areas: gender, age and practitioner main professional role. The following four methods of contacting potential participants via social media were used, including a snowballing technique of asking participants to cascade the online survey to colleagues.

1. A closed Facebook group was established inviting 48 known UK-based dispensing opticians to take part in the survey.
2. Members of the ABDO Facebook page were invited to take part in the survey (1349 members).
3. A link to the survey was sent to 39 known UK-based dispensing opticians via LinkedIn.
4. ABDO members were invited to take part in the survey through a post on the general discussion forum page on the ABDO website; this page is available to all members of ABDO using this site.

Approval was sought and received from the University of Huddersfield School of Human and Health Sciences research ethics panel.

Data collection and analysis

Bristol Online Survey site (University of Bristol 2015) was used to design, host and assist in data analysis of the questionnaire. The questionnaire contained 24 questions and was divided into seven sections: (1) introduction; (2) requirement (UK-based, GOC-registered, qualified dispensing optician); (3) professional background, age, gender; (4) forms of enhanced CET completed; (5) accessing CET; (6) engagement; and (7) influence on practice. For the last three sections, if participants chose either of the two negative options on the Likert scale they were asked to provide details as to what caused this experience.

The participant characteristics were subjected to descriptive analysis. For the Likert scale responses, a range of total scores were calculated for each domain of the questionnaire: ease of access score; engagement score; influence score, via Likert score value multiplied by response number. These were subjected to graphical comparisons. The open-ended explanations to negative questionnaire responses were

subjected to scrutiny and pertinent quotes extracted to expand the discussion of the main findings.

Results

Seventy-three participants completed the survey and 100% fulfilled the participation requirement. Thirty-three were male and 40 female; 47 were working as dispensing opticians and 26 as contact lens opticians. The age range percentages were: 20–29 years: 7%; 30–39 years: 27%; 40–49 years: 23%; 50–59 years: 32%; 60+ years: 11%. For type of practice, 48% were working in independent owned practice, 33% in multiple practice, 12% as a locum, 4% in education and 3% in optical manufacturing.

The survey participants were asked to select all ways in which they accessed each form of interactive CET. If the access method was not given as an option in the questionnaire, 'n/a' has been used to represent this in the results. The largest frequency total for access method was via an ABDO area event and the second highest was via other optical industry body-organised events. The lowest frequency totals were for online discussion forums, and no participants had accessed a session via video conferencing.

Table 1 shows the frequency and totals of interactive CET and how they were accessed by the sample; see Table 2 for abbreviations.

Survey participants were asked to select all ways in which they accessed each form of non-interactive CET. The largest reported access method was via industry journals, with the lowest being organiser/author. Table 3 shows the frequency and totals of non-interactive CET and methods of access.

The results for both interactive CET and non-interactive CET were amalgamated and the total number of times each method of access was selected, ie the total number of touch

Table 3. Compensated forms of non-interactive continuing education and training (CET) and methods of access*

Access method	Forms of non-interactive CET				Total
	RL	VR	TDL	DL	
EPW	2	2	7	7	18
MPW	1	1	2	2	6
MPEW	1	n/a	8	7	16
PO	4	2	2	2	10
SEC	2	2	1	1	6
OOIB	4	6	2	3	15
IJ	1	17	63	49	130
OA	n/a	n/a	1	n/a	1
O	2	0	0	0	2
NTP	60	48	8	21	
Total (excluding NTP)	17	30	86	71	

*For abbreviations, see Table 2. NTP, not taken part.

points for these methods, was calculated (Figure 1). The highest amalgamated interactive CET and non-interactive CET score was for industry journals, with online discussion forums the lowest. The total number of times each form of CET session was selected as being accessed was also calculated (Figure 2). The highest form of CET accessed was lecture, and the lowest online peer discussion groups.

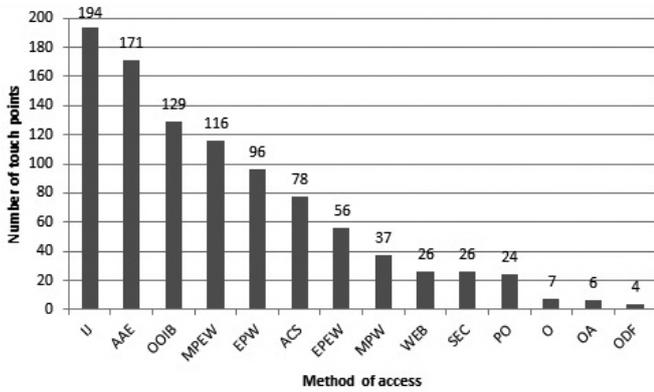


Figure 1. Total number of times (touch points) survey participant opticians used each access method to complete continuing education and training (for abbreviations, see Table 2).

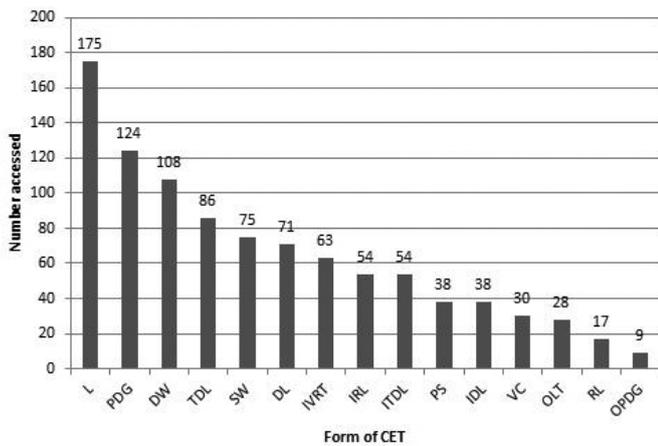


Figure 2. Total number of times each form of continuing education and training (CET) was accessed by survey participant opticians (for abbreviations, see Table 2).

The same CET provider or industry source may offer different methods of access, therefore these were consolidated. ABDO area events and ABDO conference sessions were combined, as both are provided by ABDO. Manufacturer CET provided at place of work and manufacturer CET provided external to work were combined to create the category optical manufacturer. Finally, employer CET provision at place of work and employer CET provision external to place of work were combined into the category employer. These combinations show that uptake of ABDO CET remains the highest frequency and the lowest reported is still online discussion forum (Figure 3).

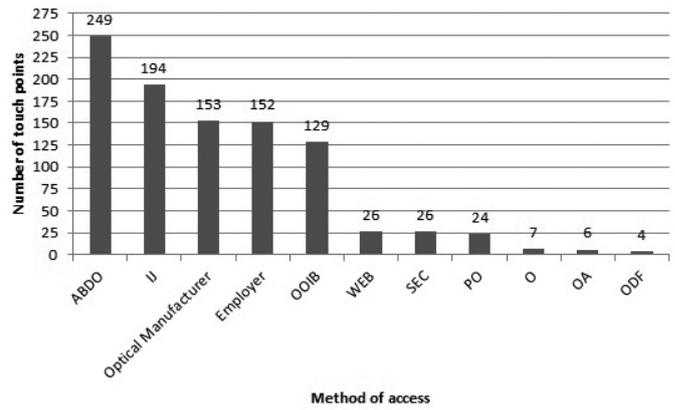


Figure 3. Total number of times (touch points) survey participant opticians used each consolidated method of access to complete continuing education and training (for abbreviations, see Table 2). ABDO, Association of British Dispensing Opticians.

Survey participants were asked to consider accessing CET through different methods and select, on a five-part Likert scale (converted to an ease of access score), how easy or difficult they found accessing and completing the sessions. Participants were asked to consider issues such as: the use of personal time, personal financial cost, complexity of booking, administration and technology. Industry journals scored the highest with the remaining methods receiving fairly equal scores, and the lowest for online discussion forums and video conferencing (Figure 4).

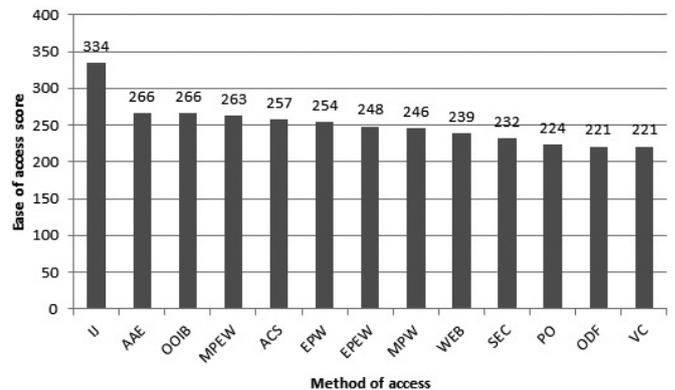


Figure 4. Ease of access score calculated for each method of access to continuing education and training used by survey participant opticians (for abbreviations, see Table 2).

Participants were asked, in terms of an educational experience, how engaged they were when taking part in different forms of CET. The highest engagement score was for peer review/discussion group, with the lowest for online peer discussion groups (Figure 5).

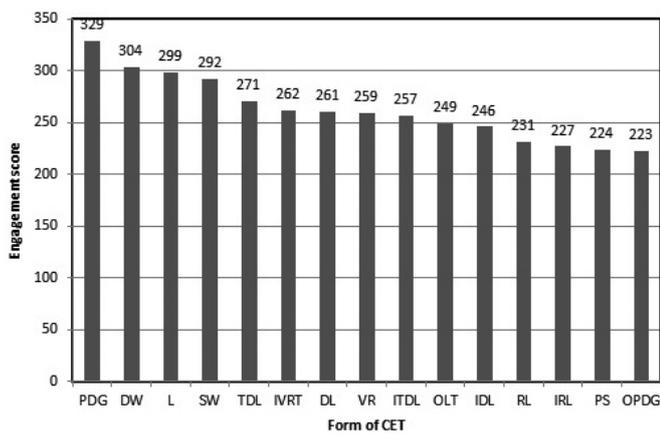


Figure 5. Engagement score calculated for each different form of continuing education and training (CET) survey participant opticians completed (for abbreviations, see Table 2).

Participants were asked, in terms of an educational experience, how influential they found the different forms of CET, and the learning they obtained, on their personal practice at work. The highest perceived level was for the peer review/discussion groups, with the lowest influence score for online peer discussion group (Figure 6). A comparison of the data to demonstrate the relationship between the number of touch points for each access method and the ease of access score is shown in Figure 7.

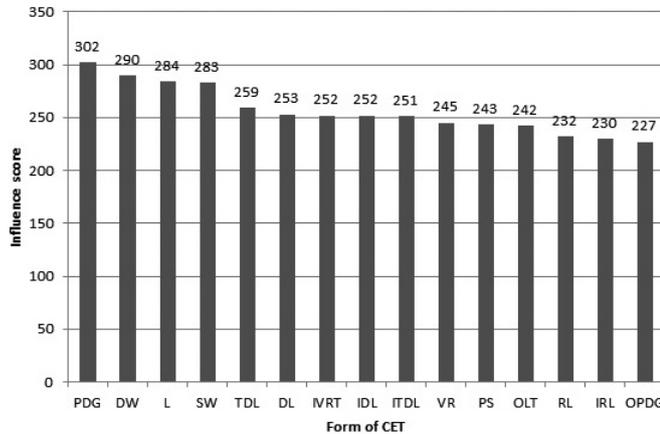


Figure 6. Influence score calculated for each different form of continuing education and training (CET) survey participant opticians completed (for abbreviations, see Table 2).

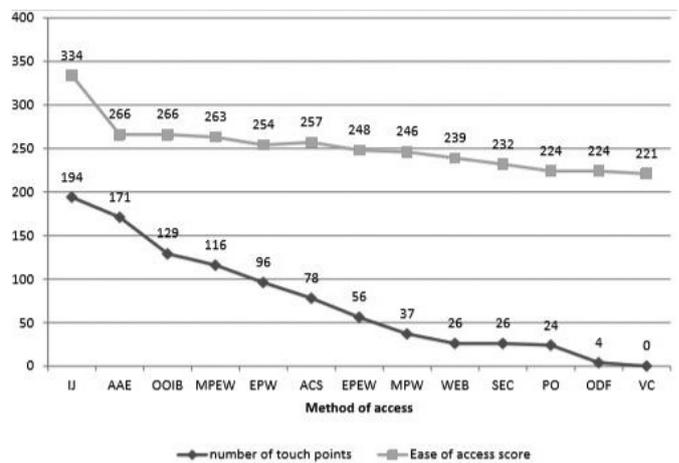


Figure 7. Graphical comparison of the number of times (touch points) a method of accessing continuing education and training was used by survey participant opticians and the ease of access score calculated for that method (for abbreviations, see Table 2).

Discussion

Though the requirements for completing mandatory CET for dispensing opticians and optometrists are similar, there are some differences that may have affected the results of the survey, if optometrists had been included in the sample, such as: requirement for mandatory peer discussion (when considering comparison to non-contact lens specialty registered dispensing opticians) and Department of Health available funding.

With the exception of relevant association membership, industry journals are only available through paid subscription. Owing to the GOC compulsory minimum interactive requirement, it is not possible to gain all CET points by completing only that offered through journals, thus fulfilling one of the GOC's purposes of introducing enhanced CET and avoiding the situation of having isolated practitioners.

However, methods of interactive distance learning provided by industry journals are a growing area. All of the industry's professional membership associations offer free-of-charge CET to their members through their industry journals. ABDO's CET provision includes access to the journal Dispensing Optics. As approximately 90% of GOC-registered dispensing opticians are members of ABDO (2014), it is perhaps unsurprising that industry journals are considered easy to access by them (Figure 4). The ease of access score shows there is little difference in the perceived ease of access via all other methods. The AOP, which has 80% of GOC-registered optometrists as members (AOP 2017b), offers members free CET with access to its print and online journal Optometry Today. Similarly, the College of Optometrists, with 79% of GOC-registered optometrists as members (College of Optometrists 2017), offers members free CET with access to the journal Optometry in Practice.

Lectures are the most accessed form of interactive CET via ABDO, optical manufacturers and other optical industry bodies. However, a CET lecture can only provide one CET

point. It is therefore surprising that this traditional form of education is so popular, when other forms, eg discussion workshops, offer three points for a similar educational time. One explanation is that there are many different access methods (Table 1).

As they require a physical presence, lectures are classed as interactive; however, they do not demand input from the attendee. Bligh (1998) concludes that, although lectures are as effective as discussion methods of teaching for transmitting information, they are not as effective for promoting thought, and thus are relatively ineffective for inspiring interest and teaching behavioural skills. Recent GOC data show that, for the current CET cycle period of February–June 2017, lectures were the most available of all sessions at 28%, with discussion workshops forming 25% and peer discussion only 15% (GOC unpublished). These figures indicate that optometrists may also be significantly accessing lectures owing to their availability from providers.

As optical manufacturers are significant CET providers (Figure 3), it is likely they are contributing to the high number of lectures accessed. Lectures are still perceived to be engaging (Figure 5) and, if we compare the engagement scores (Figure 5) and the influence scores (Figure 6), there appears to be a close relationship between perceived engagement and influence on practice. Some lectures may be less traditional in their offering and involve the audience in discussion. However, qualitative data collected for this form of CET indicate that not all respondents agree: 'Lack of activity and interaction'.

Figure 1 shows that CET provided by optical manufacturers external to the place of work is a more accessed method compared to that offered at work. Conversely, CET offered by employers is accessed more at work in comparison to that offered external to the workplace. If we cross-reference these findings with the perceived level of ease of access (Figure 4, represented as the ease of access score), we can see that these preferences are exactly matched in order of ease. It can therefore be concluded that the easier it is to access CET provided by employers and optical manufacturers, the more it is being taken up.

Qualitative data reveal little about these choices, with the exception of comments in relation to employer CET provision at place of work, indicating that for some dispensing opticians there is not specific time set aside by the employer at the workplace to complete CET. In addition, technology issues may be associated with an inability to access CET at work: 'Unable to access any online articles or access any websites related to work as all blocked. Video lectures are not possible as no way to generate sound (no speakers)'.

Up to 81% of the UK population aged 18–75 years own, or have access to, a smart mobile phone (Deloitte 2016), enabling them mobile access to the internet. However, data obtained from those classed in the millennial and generation Z age ranges show that, in UK-based retail and healthcare industries, only 5% of employees felt encouraged to use their own mobile devices in the workplace (Nudge Rewards 2017). Additionally, in the UK multiple practices have a market

share of 64% (Jones 2015), and it is the authors' experience that these companies use practice computer systems that in the main do not have access to the internet but rather a more limited company-based intranet. These factors may be contributing to the study results around perception of accessibility to CET in the workplace. Other statements provided indicate CET has not been offered by employers or manufacturers either at, or outside of, work.

Access methods requiring the use of digital technologies are some of the lowest used. Webinars require an investment in technology by the provider, as well as consideration of the design of the CET for this format. The results indicate this access method has yet to be embraced by dispensing opticians and availability is limited. However, there are developments in the industry towards more use of interactive digital solutions and both the College of Optometrists and the AOP now offer webinars free of charge to their members. In the current 2016–2018 CET cycle for the period February–June 2017, only nine of the 2748 available CET sessions were 'online lecture and small group discussion' (GOC unpublished), though 52 sessions fall under the description of 'other' and so could potentially be related to this form of CET. More research would have to be undertaken to understand fully the accessibility of this form of education for all GOC registrants. The online discussion forum lends itself to a limited number of forms of CET and GOC registrants must apply in advance before attending an online peer discussion group (GOC 2012), thus creating a further limitation.

Qualitative data obtained from the survey reveal several access issue themes creating barriers to CET: 'time', 'cost', 'distance', 'family/childcare' and 'not offered'. Distance and cost are the most common reasons access is difficult or very difficult.

Distance is the main reason for difficulty in accessing ABDO area events, with all negative respondents based in UK areas that have large amounts of rural locations (Department for Environment, Food and Rural Affairs 2011). Both the College of Optometrists and the AOP host regional CET events throughout the UK and, though it is not possible to say if optometrists would have responded in the same way to the survey as the sample did, it can be assumed that those from rural locations would face similar issues regarding distance.

Cost is the main reason cited as difficulty to access ABDO conference sessions. Though, in the authors' experience, ABDO costs are reasonable compared to other industry events, some dispensing opticians must still find it difficult to access this CET. ABDO has now ceased hosting a separate conference and aligned its annual general meeting and a CET programme to fall alongside the annual industry event Optrafair, Time, as a reason for access difficulty, appears linked to employers, both when discussing access to CET at work and through ABDO:

'Too busy at work to have time to be given CET instead of seeing patients'.

'Funding and finding time out of work'.

'Didn't come at days that suited my schedule and with single days off, less desire to spend all day at a CET event'.

'Cost and getting time off.'

Some dispensing opticians may feel there is an unmet obligation from their employer to provide access to CET as part of their working agreement: 'Employer doesn't allow us time off to attend, would have to use holiday etc.'

Further research would have to be conducted to investigate if the provision of Department of Health funding to employers via the GOS contractor allowance would influence opinion.

Family/childcare commitments are highlighted as explanations for finding access through ABDO difficult. The optical profession has a majority of female workers (Optical Confederation 2012) and so it is perhaps unsurprising that family or childcare issues present and one can consider this would be also reflected for optometrists accessing CET from their professional associations. There is a graphical trend between ease of access and the number of times different methods of access were selected (Figure 7).

Peer discussion has been shown to improve confidence in the learning content area (Bullock et al. 2014), and social learning forms are considered effective methods of professional education (Bullock et al. 2014; Dionyssopoulos et al. 2014; Jacobs and Scott 1990). Therefore, the high uptake of peer discussion and discussion workshops (Figure 2) should be positive when we consider potential influence on practice. Peer review/discussion groups were categorised as 'very engaging', significantly more than any other form of CET (Figure 5).

We can see a clear comparison between perceived engagement in all forms of CET and influence on practice. As peer discussion by UK optometrists has been shown to have a self-reported impact on clinical practice and be preferred as a form of learning over distance learning or lectures (Bullock et al. 2014), it is likely that optometrists would report similar results in preference of engagement over other forms of CET. However, for the survey sample peer review/discussion groups show less influence on practice, in comparison to their engagement, than other forms.

Due to its risk analysis the GOC has only designated peer review/discussion as compulsory for those dispensing opticians on its register with contact lens speciality and for all optometrists, yet the majority of dispensing opticians in the sample are taking part. Therefore, it is possible that some dispensing opticians are accessing peer review/discussion group sessions that are not addressing issues relating to their clinical practice.

Mansouri and Lockyer (2007) concluded that there was a larger effect size when continuing medical education was not only interactive, but also designed for physicians from a single discipline. However, overall peer review/discussion is perceived by the survey participants to be the most engaging and the most influencing on practice.

Online peer discussion/review groups are perceived to be the least engaging and have the least influence on practice. No explanations were provided for these perceptions. This result may support the idea of social learning as a positive factor: even though there is peer-to-peer engagement, it is conducted through online technology rather than face to face. The exact nature of how these online discussion groups are conducted may be of consideration to help understand how these educational interactions could be more effective. However, consideration needs to be given that very few survey participants had experienced this form of CET, and therefore the results are equivocal in this area.

Online case discussion has been identified as effective in teaching education (Hsu 2004) and using online discussion for professional development of teachers has been found to be successful (Chen et al. 2009). However, both studies have caveats regarding the use of the technology required and the necessary preparation involved. The latter also showed that there was no advantage over face-to-face discussions. Although this may be an effective learning technique in other professions, there is little evidence currently to suggest it is effectively utilised in the optical industry.

Non-interactive forms of CET show levels of engagement (Figure 5) and perceived influence on practice (Figure 6) marginally behind interactive discussion forms and lectures. However, more negative qualitative data were reported:

'Half the time I don't even bother to read the article. Most questions can be answered with existing knowledge or just scan through the article to find answer'.

'Topics not always of interest'.

Interactive versions of distance learning forms scored even further behind, with similar qualitative data collected:

'Recording wasn't best quality, ran slowly and the sound quality wasn't good'.

'The couple I watched were of such low quality, both in production (sound and visual quality were both bad) and in the content being of a very uninteresting nature'.

These findings strengthen the argument for interactive social forms of learning and emphasise the issues faced with the use of technology in providing CET education.

Conclusion

Through the various methods it offers, ABDO is the main route to accessing CET for the dispensing opticians in the survey sample group. Optometrists who are members of the professional bodies the College of Optometrists and/or the AOP also have access to free-of-charge CET through journals and events. Additionally, many optical employers who, as contractors, receive the Department of Health CET allowance provide optometrists the opportunity to complete CET (access to which is often also provided free of charge to their employed dispensing opticians). Further research would now be required to understand fully if ease

of access to CET for all GOC registrants is either the same as the survey sample, or greater.

All methods to access CET are considered reasonably easy and there is little difference in the perception of those from different types of practice, including access through employers. Industry journals are the most popular, and considered the easiest method to access CET; however, their use is limited by GOC requirements to gain interactive points. The use of online technology to access CET is limited and few dispensing opticians choose to pay for CET online. Lectures are the most accessed form of CET, potentially due to the wide variety of methods of access available for this format. Although the literature suggests lectures can be less effective than discussion-based methods, the survey sample perceives them to be both engaging and influential on practice.

Barriers to accessing CET are: cost, distance, time outside of work, family/childcare commitments and because it was not offered. As CET provided by both professional bodies and employers may be offered outside working time and space, it can be considered that these barriers would also be present for optometrists. There is a perception by some dispensing opticians that employers could do more to enable access to CET within work and there may be scope for employers to consider how they support all GOC registrants in completing mandatory CET at their place of work, in working hours. There is a clear comparison between ease of access to CET and the uptake of that method of access.

With the exception of the potential of the quality of CET to vary from provider to provider, one can consider that engagement and influence on practice by different forms of CET would be similarly experienced by optometrists and dispensing opticians. The majority of dispensing opticians find the CET they access engaging and there is a strong comparison between level of engagement and perceived influence on practice. Peer review/discussion groups are considered the most engaging and the most influential on practice, although this cannot be considered evidence of improved clinical practice. Further research would be required to examine patient outcomes before and after completion of CET to determine its effectiveness.

Research into the use of online technology as a method of accessing and delivering CET may uncover reasons why these methods, which have been shown to be effective in other professions, currently have a low uptake and are considered by dispensing opticians harder to access, less engaging and less influential on practice. With the continuing advancement of technology there is scope for improvement in this area and members of the College of Optometrists and/or the AOP now have access to a wider range of online CET provision free of charge.

● Summary

To practise in the UK, optometrists and dispensing opticians must be registered with the GOC. To maintain registration they are required to complete CET. There are a multitude of continuing education and training providers in the UK optical industry and a variety of educational formats available. This paper explores how this education is accessed, identifies barriers and examines what educational formats are accessed and whether they are perceived to influence clinical practice.

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CET multiple choice questions

This article has been approved for one non-interactive point under the GOC's Enhanced CET Scheme. The reference and relevant competencies are stated at the head of the article. To gain your point visit the College's website www.college-optometrists.org/oip and complete the multiple choice questions online. The deadline for completion is 30 April 2019. Please note that the answers that you will find online are not presented in the same order as in the questions below, to comply with GOC requirements.

● CPD exercise

After reading this article, can you identify areas in which your knowledge of CET for GOC registrants has been enhanced?

How do you feel you can use this knowledge to offer better patient advice?

Are there any areas you still feel you need to study and how might you do this?

Which areas outlined in this article would you benefit from reading in more depth, and why?

