ARTICLE IN PRESS

Contact Lens and Anterior Eye xxx (xxxx) xxx-xxx

FISEVIER

Contents lists available at ScienceDirect

Contact Lens and Anterior Eye

journal homepage: www.elsevier.com/locate/clae



Editorial

IACLE: Yesterday, today and tomorrow

Over four decades, one organisation has influenced the lives of an estimated 250 million people around the world who have experienced the benefits of contact lenses. The International Association of Contact Lens Educators (IACLE) held its founding meeting of just 16 educators on 6 November 1979. Since then, IACLE has brought together a total of 2500 members at 1500 institutions in 91 countries, who have instilled their knowledge to as many as 170,000 students. In turn, that knowledge has been instrumental in fitting approximately 250 million contact lens wearers worldwide. Working together, the global impact of IACLE, its members and industry partners has been exponential.

1. Early days

The founding meeting of what was to become IACLE took place at

the Bausch & Lomb (B&L) European Symposium on Soft Contact Lenses in Monte Carlo, Monaco, where contact lens educators were invited to meet and exchange their teaching experiences. Educators attended from France, the Netherlands, Sweden, Finland, Spain, Switzerland and Germany, and from the US, Australia, South Africa and Canada, all representing their colleges/schools and contact lens teaching programs. Australian researcher Brien Holden was present, and the B&L representative, who acted as facilitator, was George Mertz.

Three major areas of interest were identified: comparing the curricula of contact lens education; exchanging educational materials; and sharing didactic methods and courses on various contact lens topics. B&L offered to facilitate these exchanges, while educators and institutions would organise the content of events.



Pictured at the gala dinner at the B&L European Symposium on Soft Contact Lenses in Monte Carlo in 1979 are (front, left to right) Brien Holden, Desmond Fonn and George Mertz, who were among the educators at IACLE's founding meeting (image courtesy of Brien Holden Vision Institute)

The next meeting took place in October 1980 in London, when a Contact Lens Educators' Seminar was held alongside B&L's European Symposium. It was agreed that membership of the new association would be open to all educators responsible for teaching contact lens fitting at a recognised training institution. IACLE was to be independent and non-political. The 25 participants attending from 13 countries agreed to meet yearly. Voted in as members of the board for the first two years were President Hilmar Bussacker from Switzerland, Vice President Holden from Australia, and Secretary John de Brabander from the Netherlands. IACLE had now been officially founded [1].

Holden wanted to bring together contact lens educators from around Europe at annual meetings to coincide with the B&L symposium. The aim was to achieve more consistency in what was being taught in contact lenses, and to help educators keep more up to date with technological innovations. Bussacker, along with Australian researcher and educator Deborah Sweeney, who took over the running of IACLE meetings, played prominent roles. Sweeney's early role was to reproduce slide sets and collect information from members about curricula in their countries. From the Vienna meeting in 1985, UK educator Don Loran took over as Secretary. From 1990, Sweeney was to become Assistant Secretary, her first official IACLE title, and later served as its President (2000–2011).

The meetings were initially hosted and supported financially by B&L. Juan-Carlos Aragón joined B&L's professional services team in 1985 and attended his first European symposium in Barcelona in 1987. The following year Aragón organised the symposium in Berlin, where around 25 educators – mostly from Europe – attended the IACLE meeting. Aragón's view was that longer term commitment than one year was needed to invest in IACLE's future, so in 1989 B&L began a four-year investment in IACLE sponsorship totaling US\$1 million. This was before other multinational contact lens companies came on board to support IACLE.

At the Geneva meeting in 1991, Holden was elected as the new President and a new constitution was drafted, the principal amendment being the establishment of a regional structure. That year, IACLE is recorded as having 50 members in 15 countries, and delivering 30 educational programs to 600 students worldwide.

2. Global structure

1992 was a crucial year for IACLE [2,3]. Office bearers at this time included President Holden, Vice President Fonn (a post he was to hold for 15 years), Secretary Sweeney and Treasurer Charline Gauthier. Luigina Sorbara and Nathan Efron were Assistant Secretary and Assistant Treasurer. The association now had four regions: Europe, Africa-Middle East, Asia Pacific and Latin America, each with its own Regional President.

Initially IACLE held just one annual meeting, in Europe, but from 1990 regional and national meetings had been set up, often held in conjunction with other major scientific and research symposia. At the same time IACLE had gained new corporate donors. By mid-1992 it was receiving financial support from CIBA Vision, Allergan and Johnson & Johnson, in addition to its continuing major sponsorship from B&L.

Introduced that same year was the IACLE Educator Fellowship Program, to provide educators with exposure to contact lens education and research at other institutions, in order to broaden their experience [3]. In the first three years of the Fellowship Program, IACLE provided opportunities for 24 educators from seven countries to visit more than 20 contact lens teaching institutions in other countries [4]. IACLE also drafted Minimum Standards for Contact Lens Education that would form the basis for a planned IACLE Contact Lens Syllabus [3].

Also in 1992, IACLE announced its intention to establish IACLE Accreditation, the forerunner of Fellowship of IACLE (FIACLE), described as 'an internationally accepted system for accreditation' of

contact lens educators [3]. The first Accreditation Exam on a global basis took place four years later, when 86 candidates (20% of the membership at that time) in 23 countries took part.

3. First employees

Another milestone was reached in 1992 with the appointment of IACLE's first paid employee, Sylvie Sulaiman, as Education Manager. Based in Australia, Sulaiman was brought in to commission contact lens modules and materials to provide educators with everything they needed for teaching contact lenses. Work then began on what was to become IACLE's most important resource: the IACLE Contact Lens Course. Meanwhile, IACLE's presence in Asia was increasing. By the end of 1992, 51 of IACLE's 130 members were in the Asia Pacific region. Europe followed with 41 members, with 17 in North America, 16 in Latin America and five in Africa – Middle East.

More staff followed with Pamela O'Brien appointed as IACLE's Global Coordinator, working from an office in the US. The association's secretariat was to be based at the Randwick Campus of the University of New South Wales in Sydney. Sandy Hunt-Sharman was appointed as Executive Director and Yvette Waddell came on board, progressing to Director of Administration. The team moved in to its new office in October 1993.

That same month IACLE held its largest regional meeting, in conjunction with Wichterle's Days of Contact Lenses, an event celebrating the 80th birthday of the inventor of the soft contact lens, Otto Wichterle. The European Regional Meeting in Prague, Czechoslovakia attracted 100 educators from 19 countries across Europe and beyond. The event was made possible by support from IACLE's sponsors at that time: major corporate sponsor B&L, corporate sponsor Johnson & Johnson, corporate donors Ciba Vision and Allergan, and donor Paragon Vision Sciences.

With industry support, IACLE went on to conduct three World Congresses on Contact Lens Education, bringing members together to discuss the latest developments in teaching worldwide. The 1994 and 2000 Congresses were held at the Centre for Contact Lens Research and School of Optometry at the University of Waterloo, Canada. The Third IACLE World Congress, 'Shaping the future of contact lens education', was hosted by The University of Manchester, UK in 2015. Most recently, the 2017 IACLE Congress on Contact Lens Education took place in Hyderabad, India on the theme of 'Translating knowledge into increasing contact lens penetration'.

4. IACLE today

From those early days in Monaco with just 16 educators involved, much has changed. As its 40th year begins, IACLE has 845 active members in 78 countries, teaching at 625 institutions and reaching an estimated total of nearly 20,000 students each year. Asia Pacific has the highest proportion of members of IACLE's three global regions (451), followed by Europe / Africa – Middle East (207) and Americas (187). The Executive Board has nine members and a team of 16 education and operations staff worldwide is led by Executive Director Bonnie Boshart. IACLE is currently supported by Platinum Sponsor Alcon, Gold Sponsor CooperVision, Silver Sponsor Johnson & Johnson Vision, Bronze Sponsor Bausch + Lomb and Donor Sponsor Euclid. Shehzad Naroo took over as President in 2011 (he was Vice President from 2007 to 2011) with Philip Morgan as Vice President and they continue in those roles (Gina Sorbara was Vice President between 2015 and 2017).

Its flagship resource is the New IACLE Contact Lens Course (New ICLC), now a series of 33 PowerPoint lectures in six modules, fully revised and updated since 2015 by the world's leading authorities in contact lenses to keep pace with developments. Initially in English and now being translated into other key languages, presentations cover all aspects of contact lens education from the anatomy of the cornea to the business of contact lens practice. The modules provide educators with the materials they need to teach a high-quality contact lens course, and are also suitable for students and practitioners. Case reports and image galleries support the

course. The self-study IACLE Distance Learning Program, revised in 2018, helps educators improve their own contact lens knowledge and teaching skills. The IACLE Student Trial Exam tests final-year and postgraduate students' progress and addresses areas of concern.

Fellowship of IACLE (FIACLE) is unique in recognising accomplishments in contact lens education. FIACLEs are seen as leaders in their field, are frequently invited to speak at educational meetings, and often provide practitioner and student education within their professional communities. The Fellowship Exam is open to all IACLE members and is held every two years. All members who achieve a successful outcome may apply for FIACLE status. As of January 2019, there were 351 active FIACLEs worldwide. Annual IACLE Contact Lens Educator of the Year Awards and IACLE Travel Awards also recognise achievements in contact lens education and allow members to travel to major international meetings.

IACLE continues to hold Educator Meetings and Train-the-Trainer Programs to develop the teaching skills of educators and maintain their standard of knowledge. Increasingly, it is using technology to extend its reach, whether through Web Lectures and Discussion Forums broadcast live online to educators and students across countries or continents, live streaming of its World Congress, or weekly IACLE in the World radio programmes reaching across Latin America. Web Lectures, delivered via the WebEx platform, have allowed up to 14 institutions to take part in a lecture. Educators in China can now participate in lectures through WeChat.

Research Update – sent monthly to IACLE and British Contact Lens Association members – is a summary of key publications appearing in the peer-reviewed literature. Many IACLE members and Fellows are also involved in their own contact lens research and regularly have their work published in peer-reviewed journals. Research ranges from basic science and randomised controlled trials, to studies of the scope of practice in individual countries and annual reports on international prescribing trends. IACLE's network helps facilitate collaboration in research as well as in education. Most recently, a group of FIACLEs in India, led by Director of Educational Programs Nilesh Thite and Director of Global Education Lakshmi Shinde, published a study challenging traditional approaches to contact lens recommendation [5].

5. Looking to the future

As it celebrates its 40th year with anniversary events around the world, IACLE remains the leading provider of educational and information resources essential to contact lens educators worldwide. It continues to fulfil its mission to increase the number of qualified contact lens educators and improve the quality of contact lens teaching, thereby increasing the number of skilled contact lens practitioners throughout the world and facilitating the use of contact lenses worldwide, in partnership with industry.

How can IACLE demonstrate its impact other than by growth in the number of members worldwide, and the number of students and contact lens wearers it reaches? A survey of members in 2018 showed 92% were extremely or very likely to recommend other contact lens educators to join IACLE, and providing the resources needed to teach contact lenses was seen as the principal benefit of membership; the New IACLE Contact Lens Course was the highest rated IACLE resource for satisfaction and importance, and the most used [6]. Optometrists graduating from institutions with greater IACLE collaboration and support report greater satisfaction with their training, especially with theoretical aspects [7]. Higher levels of education among practitioners, greater experience and FIACLE status are associated with advanced contact lens fitting [8]. IACLE members also found contact lens fitting provided more professional satisfaction and a better business

proposition compared to non-members [9].

IACLE is already harnessing technology to share resources and experiences around the world but the future will bring new challenges. University-level education faces an uncertain future, not just due to educational methods that will revolutionalise the educator's role, but also from technological developments – such as remote refraction – that are specific to our discipline. Supply routes for contact lenses may change but ongoing patient care will remain an imperative. More schools are opening around the world, advanced lens technologies are emerging, and new forms of contact lens practice are becoming available, such as myopia control, drug delivery and monitoring applications.

IACLE will need to provide new resources, programs and events, delivered via new platforms, to keep its members abreast of advances in education and in contact lenses. Tools for assessing students' practical skills, raising awareness of contact lenses and how to use technology in teaching are among the resources that members would like IACLE to provide in future [6].

Over the past 40 years, IACLE has established a global network of contact lens educators to interact and learn from each other. This year it pays tribute to the foresight of its founding members, to those such as Holden, Sweeney, Fonn, Aragón, and many others, who were committed to the cause of raising the standard of education worldwide, and to all its members and industry partners across four decades for their support. In future, IACLE will need to evolve still further to help its members navigate the coming decades, when educators and their students – the practitioners of tomorrow – can expect to be challenged to an unprecedented level.

Acknowledgements

This editorial is based on an article The Early Years: 1979–1993, published at www.iacle.org to mark the 40th Anniversary of IACLE. Thanks to the following contributors for their help in preparing the article: John de Brabander, Hilmar Bussacker, Richard Pearson, Deborah Sweeney, Des Fonn, Juan Carlos Aragón, Pamela Capaldi (O'Brien), Yvette Waddell, Barry Brown, Brien Holden Vision Institute (BHVI), Richard Franz, Sylvie Franz (Sulaiman), Christine Astin, Etty Bitton, Lester Caplan and Hans Bleshoy.

References

- H. Bussacker, International Association of Contact Lens Educators gergrűndet, Neues Optiker J. (December) (1980) 91.
- [2] G. Lowther, International education activities, ICLC 19 (1992) 149.
- [3] B.A. Holden, International Association of Contact lens Educators expands globally: message from the new president, ICLC 19 (1992) 174–181.
- [4] R. Lindsay, Making contact worldwide: IACLE Educator Fellowship Programs, ICLC 23 (1996) 4–5.
- [5] N. Thite, L. Shinde, P. Sawant, A. Shinde, M. Ghai, M. Kharat, et al., Proactive contact lens prescribing – which approach is more effective? Cont. Lens Anterior Eye 41 (2018) 380-302
- [6] IACLE Membership Survey 2018 among 300 members in 48 countries, March 2018.
- [7] N. Thite, P. Gogate, G. Kunjeer, Adequacy and relevance of contact lens training in India, Cont. Lens Anterior Eye 36 (2013) e24.
- [8] N. Thite, B. Noushad, G. Kunjeer, Contact lens prescribing pattern in India 2011, Cont. Lens Anterior Eye 36 (2013) 182–185.
- [9] N. Thite, S. Naroo, P. Morgan, K. Jayanna, B. Boshart, Motivators and barriers for contact lens recommendation and wear, Cont. Lens Anterior Eye 38 (2015) e41.

Alison Ewbank

IACLE Communications

Shehzad Naroo*

Aston University, School of Life and Health Sciences, B4 7ET, UK E-mail address: s.a.naroo@aston.ac.uk.

^{*} Corresponding author.