



Wolfgang Cagnolati starts a new series of articles examining eye care provision in Europe with a look at its most populous nation state

postgraduate courses (MSc or PhD) for optometrists at these universities, but this autumn the FH Aalen will offer an MSc course in conjunction with the New England College of Optometry in the US. Next year, the TFH Berlin together with the Pennsylvania College of Optometry will probably also introduce an MSc in clinical optometry.

Compared to the UK or the US, German optometric education has significant deficits in most biomedical aspects of optometry. All other areas, such as refraction, binocular vision and contact lenses, are traditionally well taught and practised.

PROFESSIONAL BODIES

The *Zentralverband der Augenoptiker (ZVA)*, with over 90 per cent of independent optometrist members, is the professional body. It is primarily responsible for optometry-related professional politics.

There are two scientific organisations, which with the ZVA represent German optometry internationally. The *Wissenschaftliche Vereinigung für Augenoptik und Optometrie (WVAO)* has more than 2,000 members and the *Vereinigung Deutscher Contactlinsenspezialisten (VDC)* has more than 1,000 members. The latter is regarded as the most progressive organisation towards a more biomedically orientated primary care profession.

THE EUROPEAN DIPLOMA

The main problem with German optometry lies in the heterogeneous education situation, as well as in the generally inadequate clinical education – especially in pathology screening. This has led to many optometrists seeking further education abroad. Younger colleagues in particular gravitate towards the US or the UK, but are critical that they have to work within the same professional framework.

In this context, the European Diploma will have a great impact on the present change in the German optometric school *curricula*. It is also strongly influencing the discussion about the future of German optometry as part of European optometry.

Because of its biomedical bias, the MSc course in clinical optometry, first offered in Germany in 1996 by the Pennsylvania College of Optometry, is currently the only relevant continuing education for part C of the European Diploma.

Anyone interested in achieving the new diploma from the European Council of Optometry and Optics should contact the ZVA at p.schreiber@zva.de

◆ *Wolfgang Cagnolati is visiting associate professor at the Pennsylvania College of Optometry and chair of the board of examiners for the European Diploma in Optometry*

Focus on Germany

Eye-care provision in Germany is the responsibility of 'optometrists' and 'ophthalmologists'. The scope of practice of the former comprises pathology screening, monocular and binocular refraction, and the prescribing, fitting and dispensing of visual aids. Ophthalmologists are involved in diagnosis and therapy, surgery (partially), refraction and prescribing of visual aids, binocular vision evaluation and orthoptics (partially), and the fitting and dispensing of contact lenses.

Direct comparison of these two professions reveals an overlap of central functions and this is the source of some problems between them. Both work independently within the health and social security system. The optometrist is paid a fixed amount for his provision of services by the health service funds. He or she can, but does not have to, work for this fee alone and therefore patients usually have to pay an additional sum.

Optometry is a regulated profession in the German health care system, within which there are no limitations on certain optometry-related examination methods or instruments. Furthermore, no patient-related age limit exists as is sometimes the case elsewhere in continental Europe. Optometrists in Germany are not yet allowed to use diagnostic drugs.

For the population of 82 million people, there are 8,800 optometrists and 7,980 ophthalmologists. More than half of all spectacles are prescribed by optometrists the remainder by ophthalmologists.

Contact lenses are primarily prescribed and fitted by optometrists (62 per cent), ophthalmologists dealing with the rest. Of the registered ophthalmologists, 807 work in hospitals. Most work in normal day practice (5,375), 1,644 work outside ophthalmology and 154 work in other areas.

Optometric education in Germany lasts seven years and has two main stages. The first stage, a three-year pre-optometry apprenticeship, must be completed by all students. Stage two depends upon the student's previous education. First there is the 'college' licence to perform optometry. Following the three-year apprenticeship, the student has two years' practical training, followed by a two to two-and-a-half year college course.

The 'university' licence to perform optometry is available to those students who completed the German equivalent of A Levels – *Abitur* – before doing their apprenticeship. They then complete their training with a four-year university course.

Independent of the above there is also the possibility to complete stage two in part-time education and subsequently take the examination to become an *Augenoptiker-Meister*. Because of this heterogeneous education there are various titles for 'optometrists': *Dipl Augenoptiker/Optomist (FH)*; *Dipl Ing (FH) Augenoptik*; *staatl gepr Augenoptiker*; *staatl anerkt Augenoptiker*; or *Augenoptiker-Meister*. The first two titles are comparable to a BSc.

There are four colleges and four universities of applied sciences (FH Aalen, TFH Berlin, FH Braunschweig/Wolfenbützel and FH Jena). There are at the moment no