Therapeutic Training in Optometry – The Hong Kong Experience

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Introduction

The global trend of optometry education is towards the North American model. The two main features are: education at post-graduate level (such as OD), and graduates are competent to treat common ocular diseases. Some countries other than North America have their optometry curricula revised recently. Countries include Australia and UK where optometry programmes have been well-developed. The School of Optometry (SO) at The Hong Kong Polytechnic University is the only university in Hong Kong offering optometry programme. We have undergone similar curriculum revision.

What did the other countries do?

The Australian models
University of New South Wales
Current Programme: 5-Year BOptom BSc
Other Programme: 4-Year BSc (major in Vision Science, cannot practice optometry)
University of Melbourne
Current Programme: 5-Year BOptom (last intake in 2009)
Other Programme: 3-Year BSc (since 2008)
Future Programme: Doctor of Optometry (first intake in 2011)
Queensland University of Technology
Current Programme: 5-Year dual award (3 Years with Bachelor of Vision Science + 2 Years ⇒ Master of Optometry)

Summary: Although different optometry schools have different awards offered, all programmes are at least 5 years in duration. It allows sufficient time to equip students with competent therapeutic skills.

The UK model
Current Programme: 3-Year BSc in Optometry + 1-Year pre-registration
University of Manchester
4-Year Master in Optometry (since 2007)
(Clinical training, with hospital rotation, is incorporated into the programme through years 3 and 4)

Summary: There has not been much revision in the curriculum over the country. Optometry graduates could acquire their therapeutic skills through Continuing Education and Training (CET). Upon successful completion of certain CET courses, optometrists are enabled to gain "Independent Prescriber" accreditation.

Our situation in Hong Kong

Current Programme: 4-Year BSc (Hons) in Optometry (since 1990)

Licensed to use the following diagnostic drugs
Topical anesthetics:
0.5% proparacaine
0.4% benoxinate
0.5% tetracaine
Mydriatics:
0.5% and 1.0% tropicamide
Not more than 2.5% phenylephrine
Cycloplegics:
0.5% and 1.0% cyclopentolate
0.5% and 1.0% atropine solution and ointment

Curriculum revision in 2005

Our curriculum has been revised starting from the 2005 cohort. Revisions included:

Didactic teaching in Year 3 (from 2007/08 academic year):
Expansion of Ocular Pathology: 54 hrs ⇒ 84 hrs
Expansion of General & Ocular Pharmacology: 42 hrs ⇒ 86 hrs
Pharmacology lab added: epilation, punctal occlusion, lacrimal irrigation

General Pharmacology is taught by a Pharmacology Professor. One SO academic staff has completed a therapeutic pharmaceutical agents (TPA) course at the Pennsylvania College of Optometry in 2005. We have two SO academic staff with OD qualification.

Clinical training in Year 4 (from 2008/09 academic year):
Clinical rotation at Zhongshan Ophthalmic Centre (ZOC) for 3 weeks. This includes 80 hours of training at out-patient department, and specialty outpatient departments such as cornea and glaucoma.
(ZOC rotation was 2 weeks and not at out-patient departments before 2008/09)

Exit examination (in May 2009 and every May):
Each student has to sit for a 20-minute oral examination. The panel includes one local ophthalmologist + one OD. Student has to pass this examination for graduation.

Discussion

So far, we have 30 graduates completed the revised curriculum in 2009, and another 21 graduates in 2010. At the present moment, graduates are still not eligible to prescribe TPA in Hong Kong. However, if students are not equipped with this knowledge and skills, their exchange opportunity could be limited. The clinical training at ZOC is not ideal because TPA used in Mainland China could be different from that in Hong Kong. Traditional Chinese Medicine (TCM) has been commonly used in Mainland China and students do not have knowledge in this area. Our next plan is to rotate our students to local hospitals and ophthalmologists’ practices which may be implemented in early 2011.

One restriction is that government funding for tertiary education in Hong Kong is limited to undergraduate programmes. Programmes at taught post-graduate level have to be self-financed and students will be unable to bear the cost for health-related programmes. However, all university programmes in Hong Kong will be at least 4 years starting from 2012. Students will enter university one year earlier and our BSc (Hons) programme will become 5 years. This will give us more room to expand the curriculum further.

When and how could our graduates, with the training in treatment and management of ocular disease (TMOD), have the prescription right? Certainly it takes time to cumulate enough graduates with TMOD skills before the government starts to consider revising the ordinance. Our graduates have the same query to the School.

Current Canadian trained optometrists are licensed to prescribe TPA. Ontario has their regulations amended in June 2008. Perhaps their experience can be used as a reference.

Change of regulation in Ontario

Licensed to prescribe therapeutic pharmacological agents

Passed NBEO TMOD exam on/after 1 Jan 2002
Graduated on/after 1 Jan 1995
Passed NBEO TMOD exam prior to 1 Jan 2002
Completed a minimum of 100 hours TMOD course prior to 1 Jan 2002
Completed a refresher course (at least 20 hours) on TMOD on/after 1 Jan 2002
Completed a minimum of 100 hours TMOD course on/after 1 Jan 2002
Completed a minimum of 100 hours TMOD course on/after 1 Jan 2002
Graduated prior to 1 Jan 1995
Graduated on/after 1 Jan 2000