

DEVELOPMENT OF OPTOMETRY IN TAIWAN

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ABSTRACT

Taiwan has one of the highest myopia prevalences in the world and its eye care services are provided by both ophthalmologists and optometrists. The law on the practice of optometry was passed on December 18, 2015, by the legislature; thus began a new chapter for the development of optometry. This note aims to share some information about this newly recognized eye care profession in Taiwan and share some thoughts on the future development of the profession.

KEYWORDS

International optometry, optometric education, optometry history, optometry licensure.

INTRODUCTION

Taiwan has a population of 24 million people with a very high percentage of the population requiring vision correction. Among the school children alone, the prevalence of myopia is high, and it increases steadily. From 1983 through 2017, the weighted prevalence of myopia increased from 5.37% to 25.41% for 7-year-olds and from 30.66% to 76.67% for 12-year-olds.¹ The eye care services are provided by ophthalmologists and optometrists. The law for the practice of optometry was passed on December 18, 2015 by the legislature and thus began a new chapter for the development of optometry. This note aims to share some information about the history and current status of this newly recognized eye care profession in Taiwan and share some thoughts on the future development of the profession.

OPTOMETRIC EDUCATION IN TAIWAN

Glasses were often taken care of together with watches by craftsmen around the 1960s. In the 1970s, independent

optical shops started to appear, and the adoption of the use of autorefractors by many of them. Staff of these shops, however, did not possess any formal education, and no license for practice was required. College level education started in 1982 by the now called Shu-Zen Junior College of Medicine and Management, and the curriculum mainly focused on optics, refraction, lens grinding and dispensing. Chung Shan Medical College was the first to set up a four-year university program in 1999. Currently there are 11 optometry schools in Taiwan with two different level programs including both the Bachelor of Science degree program and the associate degree programs from the vocational colleges. (Table 1) Graduates from vocational schools can further continue their study to upgrade themselves and eventually obtain a bachelor's degree in optometry. There are also several different interconnecting transfer programs for people with different backgrounds to eventually obtain a bachelor's degree in optometry. There are approximately 1,200 graduates every year from these schools.²

Table 1. Optometry schools in Taiwan and year of approval from Ministry of Education.

Name of Schools with Optometric Program	Year of Approval by Ministry of Education	2021 Total Registrants of All Optometric Programs
Chung Shan Medical University	1992	99
Shu-Zen Junior College of Medicine and Management	1982	192
Jenteh Junior College of Medicine, Nursing and Management	1980	118
Yuanpei University of Medical Technology	2007	84
Central Taiwan University of Science and Technology	2007	117
Chung Hwa University of Medical Technology	2008	220
Hsin Sheng Junior College of Medical Care and Management	2013	101
Mackay Junior College of Medicine, Nursing and Management	2012	179
University of Kang Ning	2012	127
Dayeh University	2014	45
Asia University	2015	99

EXAMINATION

Graduates from optometric schools including both university and vocational college programs need to take the licensing examination conducted by the Ministry of Examination of the government. They can either choose to take the licensing examination for optometrist or assistant optometrist. The national examination for optometrists includes five multiple choice written test sessions of 60 minutes each. The topics of each session are listed in Table 2. Assistant optometrists only need to take four sessions, the session taken only by optometrists being low vision.

A special examination was set up for five years from 2016 until 2021 to allow practitioners without formal optometric education but with an earned college degree along with working experience to obtain different levels of licensure. Shops that were already

registered before the enactment of the law can remain open for 10 years as a grace period after the promulgation of the law. There are about 14,000 licensed optometrists and assistant optometrists as of the end of 2021.

Table 2. Sessions of the licensing examination for optometrists.

	Examination subjects
National Licensing Examination for Optometrists	<ol style="list-style-type: none"> 1. Anatomy and Physiology of the Eye, Regulation and Ethics 2. Geometric, Physical, and Visual Optics 3. General Optometry 4. Contact Lenses and Ophthalmic Dispensing 5. Low Vision

LICENSURE

After passing the examination, candidates obtain their licenses from the Ministry of Health and Welfare.³ They must register their location of practice with the local Department of Health and join the local professional association. According to the Law & Regulations Database of Taiwan government, the formal name of the act for the practice of optometry is called the "Optometric Personnel Act." The only difference in the two levels of practitioners called optometrists (驗光師) and assistant optometrists (驗光生) is that assistant optometrists may not prescribe and provide low vision aids.

The scope of practice as listed in the act includes the following statements:

1. Non-invasive examination of refractive status of the eye. No examination of children under 6. For children from 6 to 15, supervision by ophthalmologists is required. If normal vision cannot be achieved, a referral for medical service is required.
2. Prescribing and fitting contact lenses excluding the practice of orthokeratology, keratoconus, and other specialty contact lens.
3. Prescribing and dispensing low vision aids.
4. Conducting examination referred by medical practitioners.

DISCUSSION

With the law passed in 2015, the profession of optometry is officially recognized. Discussions with the government on some aspects of the scope of practice are ongoing. Throughout Taiwan, there are discussions on fees for professional services among members of the professional associations. Several professional associations are conducting community vision screening programs that help enhance the visibility and image of optometrists. Good quality education is the key to the development of the profession. It is questionable if Taiwan needs 11 optometry schools and if two-year program and

four-year program graduates can both provide the same quality of optometric services. In order to achieve a level of practice advocated by the World Council of Optometry, the Ministry of Education needs to review both the duration and the content of its curriculum. Taiwan's professional associations in optometry should consider joining both the World Council of Optometry and the Asia Pacific Council of Optometry so that information on education, legislation, and scope of practice in different regions of the world can be accessed and shared for comparison and reference in the future development of optometry.

CONCLUSION

Vision impairment caused by refractive error should be prevented and good quality eye care provided by all levels of eye care professionals is needed everywhere in the world including Taiwan. The passing of the law is only the beginning. We anticipate further development of optometry in Taiwan in the years ahead.

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