

Thirty years of optometric education at Turfloop (1975-2005): A historical and educational overview

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Abstract

It is always necessary to document historical events for the purpose of future generations. The Department of Optometry at Turfloop had a complex development which needs to be documented; hence, the purpose of this article is to present a historical and educational overview of the optometric education at Turfloop, thirty years after its inception. This article is timely not only because of the milestone that the department has reached, but also because the institution (University of the North) where it was established 30 years ago has merged with the Medical University of Southern Africa (MEDUNSA), to form a new institution called University of Limpopo (UL) in January 2005. This article discusses the historical background of the department, staffing, facilities, academic developments, student enrolment, graduation and curriculum development. Academic, research and community outreach programmes are also discussed. Also, the future activities which may further enhance the development of the department are described. This article will serve as one of the reference sources for the present and future generations who may be interested in the historical development of optometric education at Turfloop.

Keywords: Optometry, Education, University of the North, University of Limpopo (Turfloop, South Africa)

Historical background

Towards the middle of the 1950s, it was felt that the number of University institutions in South Africa catering for non-Europeans should be extended. In 1959, the Extension of University Education Act was passed by the Parliament of the Union of South Africa to provide for the establishment of two additional University Colleges for blacks, one for coloureds and one for indians. In this way, the University College of the North was founded on 1st August, 1959 under the trusteeship of the University of South Africa (UNISA). The college was to serve the Northern Sotho, Southern Sotho, Tsonga, Tswana, and Venda communities, but it also accepted students from the Southern African region¹. The University was located at Turfloop, a rural community about 30 kilometers from Pietersburg, now called Polokwane. In 1969, the Republic of South Africa Parliament made provision for academic independence through the University of the North Act (Act No. 47 of 1969), and on 1st January 1970, the relationship with UNISA was dissolved and the University of the North came into being¹.

Professor David J. Fourie, the then head of the Department of Physics and Dean of the Faculty of Mathematics and Natural Sciences motivated for the establishment of the optometry degree program at Turfloop. In 1974, the senate approval was granted for the establishment of the Department of Optometry at the University². In 1975, the department was established and housed in the Department of Physics at E block under the guidance of Professor DJ Fourie. It was subsequently moved to G block in 1982,

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where it currently operates. The first set of students were admitted in 1976. Although, the Department of Optometry at Turfloop was the second optometry department in South Africa (after Technikon Witwatersrand), it was the first university-based course and the first to offer a professional degree program.

The first two decades of optometry at Turfloop (1975-1995)

The preparations for admission of students into the Department were undertaken in 1975. In 1976, the course started with two students and one part-time lecturer, Mr. David L. Assaisky. Mr. Assaisky came twice a week to give lectures for several hours each day. He was subsequently joined by other lecturers such as Mr. Ken Turnbull (who later became Professor and Head, Department of Optometry at the University of Durban West-Ville, now called University of Kwa-Zulu Natal), Mrs. Shirley Weerepas and Mr. Raymond Knight³.

In 1977, Mr. Terence B. Giles (who later became Dr. Giles) was appointed; becoming the first full time staff member. Early 1980s witnessed appointments of more full time members, mainly Americans. In 1980, Dr. Douglas K. Penisten signed a four year contract as a faculty member and administrator in the department⁴. He later recruited Mike Cook who in turn recruited Clarke Jensen and Ken West³. By the mid 1980s the department was staffed almost exclusively by American optometrists and at one stage four Americans were working in the department⁵. The first black South African to join the staff in 1981 was Mr. Siphos Moses Ndlela and subsequently others such as Mr. Jonas Letsoalo (1984) joined as full time staff members.

One of the major challenges that had faced the department was that of staffing. This was partly due to its rural location and scarcity of qualified personnel to fill the existing positions. In an editorial comment in the *South African Optometrist*, focusing on difficulties faced by Departments of Optometry in South Africa, the editor then, Professor WF Harris commented "...being further from the larger centers, the Department of optometry at the University of the North has particular problems finding people to help with clinical supervision and

lecturing, and one often hears the lament from the staff there that they feel isolated and even irrelevant or expendable". "My plea, therefore, is to keep an interest and involvement going in spite of the difficult times and, where possible to increase it⁶". From such comment, one could imagine difficulties that the department had gone through in the past.

The first two decades witnessed a series of leadership in the department. The first chairman of the department was Mr. David L. Assaisky, but because he was a part-time staff member, an acting chairman who was a full academic staff member was subsequently appointed. The post was assigned to Dr. Marian Alberts, the chairman of the Department of Medical Sciences (she is currently a Professor Emeritus in that department). Dr Alberts taught general physiology to optometry students. The first full time chairman was Dr. T. B. Giles who took over from Dr. Marian Alberts in 1978. He was chairman of the department between 1978 and 1980. The subsequent heads were Dr. D Penisten (1980-1983), Dr. M Cook (1983-1985), Professor MJ Gowans (1986-1990), Professor C Joubert (1991-1992), Mr. Ndlela (mid 1992). Due to a leadership crisis in 1992, the Dean of the Faculty of Health Sciences, (who was also head of the Department of Pharmaceutical Chemistry, School of Pharmacy), Professor Vernon Leighton M. Jali took over the chairmanship between 1992 and 1994. In July 1994 Professor DDD Sheni was appointed the first full Professor and Head of Optometry at the UNIN. He was also the first black Professor to Head the Department.

Within the first ten years, student population in any year ranged from two and twenty one. It is noteworthy, however, that students from other Southern African countries were admitted into the program as early as 1977. During the second decade, enrolment increased tremendously and this may be attributed to greater awareness about optometry as a professional option at local, national and international levels, as well as prospective students' knowledge of the presence of the course at Turfloop. The increase in the number of international students may also be due to the nearness of the University to the rest of Africa. The department has the privilege of producing most of the black South

Africans who are currently practicing optometry in the country. Also, a large proportion of black Zimbabweans who are practicing in their country today are Turfloop trained.

The first two students who graduated from the department were female: Themelia Hilda Mitshali (Now Mrs Ndatshe) and Olga Kanabo Skhosana (now Mrs. Manitshana). They started optometry at second year level in 1976 as they had credits for the first year from another program. They graduated in 1978 and have been credited with the honour of being the first black optometrists in South Africa⁷. These two ladies have always been associated with history of Optometry in South Africa. In an editorial comment in the South African Optometrist 1977, Bill Heath the editor then, wrote: Four black students studying optometry at the University of the North, near Pietersburg made history in the annals of the South African Optometric Association when they applied for and were accorded Associate membership of the Association. Hilda and Olga were in the third year and the others (Ms. Linnea Nangata and Mr. Moses Ndlela) were second year students when they were accorded the membership⁸.

Many Turfloop graduates are in practice all over Southern Africa. As at present, a large proportion of black optometrists in practice in South Africa are Turfloop trained. Also, a large proportion of practitioners in the Limpopo Province are graduates of the department. There are a few who have had higher degrees. The first graduate of the department to enroll for a higher degree was Mr. SM Ndlela who obtained Master's of Philosophy (M.Phil) in optometry from the Department Of Optometry and Visual Science, City University, London. The first graduate of the department to obtain a PhD degree was Ms. Tuwane A. Rasengane. She graduated from Turfloop in 1985 and subsequently obtained MSc. and PhD degree from the University of Houston, Texas, USA. She is currently an Associate Professor at the University of the Free State, Bloemfontein.

The third decade (1995-2005)

By the beginning of the third decade in 1995, the academic programs had stabilized, but the staff challenges persisted. The first staff member with a PhD was Professor Dan

D.D. Sheni who joined the Department in 1995. The second was the author (Professor Alabi O. Oduntan) who joined the department in 1996. The Leadership of the department since 1995 has been as follows: Professor Sheni (1995-1996); Professor AO Oduntan (Acting Head) (1997-2000, 2002), (Programme Manager, 2003); Mr. Ndlela (Acting Head, 2001) Mr. L. Dube (Programme Manager, 2003 - 2004); Professor Sheni is currently the Head of the Department (2005).

With the limited number of full time staff, the department has always depended on part-time lecturers for teaching and clinical supervision. These were mainly optometrists who practice in Polokwane and ophthalmologists who work at the Mankweng Hospital, (Provincial Hospital). Also, non-optometric staff in the University assist in teaching service courses. Physiology (general and ocular) are taught by staff from the Physiology department; Anatomy (general and ocular) and Microbiology are taught by staff from the Medical Science Department and Pharmacology (general and ocular) from the School of Pharmacy. Information Science and Psychology are taught by the staff from the Computer Science and Psychology departments respectively. Staff from other departments of optometry in the country (Rand Afrikaans University now University of Johannesburg and University of Durban-Westville now University of KwaZulu Natal) have assisted in teaching courses such as binocular vision and ophthalmic dispensing in the past, in fact up to December, 2003.

The staff compliment has improved significantly in recent years. In 2004, the first Director of Optometry Clinics, Mr Letsoela A. Motingoe was appointed. Hitherto, the position was occupied by acting personnel. The year 2005, witnessed the arrival of another PhD holder, Dr. Hattingh, who has a PhD in Chemistry and was a senior lecturer at the Department of Chemistry in the University before studying Optometry in the department. The department currently has two professors, one senior lecturer, one lecturer, four tutors, and one Director of Clinics.

Curriculum

The department currently has undergraduate and post-graduate (Masters) programs. The undergraduate program runs over four years, the

first year of which students take mainly basic science subjects. The curriculum has been revised several times within the past ten years, firstly to improve the quality of the program and more recently to align the courses with the directives of the South African Qualification Authority (SAQA). In 2002, the subjects were modularized and semester system introduced, as opposed to yearly course system. Quality of the program and products is ensured by several methods which include comparison of curriculum with those from other institutions and making changes where necessary; appointment of external examiners from other optometry institutions to moderate examinations and taking actions on feedbacks from current students and graduates. In a 1997 survey on graduating students⁹, some students expressed views that they did not feel adequately prepared in certain courses such as ocular diseases diagnosis because they did not see many ocular diseases cases during their training. Currently, in addition to the departmental staff, there are four part time ophthalmologists who are assisting in teaching that course, with emphasis on instrumentation on ocular disease diagnosis. Also, students now have their practical sessions at the Mankweng Hospital, where they are provided with knowledge of several types of ocular diseases by the ophthalmologists.

In an endeavor to further develop the Optometry curriculum in the department, a Doctor of Optometry (OD) curriculum was drafted and submitted for approval in 1995. The approval of the curriculum was ratified by the senate at a meeting on 7 June, 1996. In collaboration with the Pennsylvania College of Optometry, USA, the first set of OD students were admitted in January, 1998. The course ran for only one year but was discontinued on the ground that it was not in line with optometric curriculum in South Africa. It is not uncommon for the OD program to be rejected at its first introduction in African institutions. An attempt to introduce the OD program at the Department of Optometry, University of Benin, Nigeria was initially rejected by the Senate of the University¹⁰. That Department and indeed other optometry Departments in West Africa now offer OD degree programs. With systematic expansion of Optometry curriculum, four years is becoming too short for optometric training. Perhaps, revision of the optometry curriculum

in South Africa in the future will consider the OD curriculum.

In recent times, as the student enrolment increases, there have also been changes in the ethnicity of students. Within the first ten years of its inception, the students in the department were exclusively black. The situation is changing albeit quite slowly. Among those who registered in 2005, were nine asians, one colored and three are whites. The total enrolment for the year was 224 and the breakdown for the students is as follows: 1st year (66), 2nd year (60), 3rd year (51) and 4th year (47).

Graduation

Up to 1985, only eleven students had graduated from the department. Each decade has witnessed a significant increase in the number of graduates. In 1995, there were seventy-two Turfloop graduates in South Africa. As at 2005, a total of 369 students had graduated from the department. Many of those (80.5%) graduated during the third decade of existence of the department. This total number includes the twenty eight students who completed their studies in 2004 and graduated in June 2005.

Some of the graduates are from the neighboring countries, mostly from Zimbabwe. There are a few from Swaziland. As greater number of applications are being received from the South African Development Community (SADEC) region, it is anticipated that the number of foreign graduates will continue to increase significantly. Many graduates of the department (South Africans and non-South Africans) currently practicing in the SADEC states such as Zimbabwe, Botswana *et cetera*, highlight the contribution of the department to the Southern region of Africa. It is anticipated that this contribution will extend beyond the South African states in the near future as current students include those from parts of West Africa.

Post-graduate program

A two year research-based master's program was started in 1997. Until two years ago, interest in the master's degree has been minimal. This is because many graduates opt to go and practice rather than pursuing higher degrees, a situation that one would find in optometric institutions worldwide. The first two products of the master's program (Mr. David Mathebula and Ms.

Mashudu Raliavhegwa) completed their degree program in 2000. As at January, 2005, however, there were eight students in the master's program. Doctor of Philosophy (PhD) degree in optometry was approved for the department by the Faculty, Senate and South African Qualifications Authority (SAQA) in 1999, but was discontinued in 2002 because no student had registered for the degree.

Research activities and publications

There has been a tremendous interest in research activities within the past ten years. Studies are carried out on various aspects of optometry. During this period, staff members have published over forty articles in national and international peer reviewed journals. Also, staff members have received University research awards for their research output. The author (Prof. AO Oduntan) received the JL Saks Literary Award, administered jointly by the South African Optometric Association and the JL Saks Foundation in 2000 and the University of the North Research Excellence Award in the senior category (science) in 2001. Mr. Mathebula also received the University of the North Research Excellence Award in the junior category in 2001.

Outreach Programs

Teaching, research and community outreach programs are important components of staff and students activities at the University of Limpopo. Every department is expected to engage in outreach activities so that the community can benefit from the activities of the University. According to Marshall¹¹ the Optometric Educator, as a member of the academic community, and irrespective of academic specialty, has a social responsibility to promote and protect the health of the broader community. This agrees with the views of the staff and students of the department that eye care services should be rendered to the people in the communities where the University is located. In this regard, staff and students engage in several optometric community outreach programs.

In the past, the department operated a mobile clinic, which consisted of a caravan and a power source which was purchased from funds generated from the optometric clinic and the equip-

ment donated by the Standard Vista Optical Company⁵. The caravan has since broken down and was not repaired because it was thought that it will be more economical to purchase a new one rather repairing the old one. Plans are on the way to purchase a new one. The department, however, has a Kombi (bought with money from Irish Aid in 1995), which is used to convey students to community (Provincial) rural clinics, and transport patients from their communities, to the optometry clinic on campus.

The current activities include rural community optometric services and school vision screening for both the normally sighted and partially sighted learners. Community clinics operated by the Provincial government that are within 50 kilometers distance from the university are visited to provide eye care services to residents. Services include refraction, eye disease diagnosis and provision of eye glasses for those who need them. Also, there are occasional provision of eye care to the dwellers of rural communities in Venda, about 200 kilometers from the University. For vision screening, primary and secondary schools within approximately five kilometers of the University are visited and vision screening provided for the pupils. Those who fail the screening exercise are referred to the University clinics for further evaluations and management or referral. Also, staff members and students visit the Schools for the Blind in the Province to provide low vision screening and referral for the pupils. These include Schools for the Blind at Siloë (Lebowakgomo), Letaba (Tzaneen), Shilidzini (Venda) and Setolotwane (Polokwane).

Continuing Professional Development (CPD) Program

Within the past decade or so, compulsory continuing professional development has been a contentious issue in many parts of the world including South Africa. According to Vingrys¹² (Chairman of the National Optometric Continuing Education Committee in Australia), all undergraduate courses have time constraints which limit course content and exposure. Also, people vary in the way that they absorb information. This variable capacity is evident among students even though they have all attended the same course. This means that practitioners will

vary in their understanding and capacity to apply certain theoretical, practical or business-oriented issues after graduation¹². They may even forget some of what they were taught in their undergraduate classes. This leads to potential problems if the practitioners have limited exposure following graduation and fail to retain and develop their skill in all areas of Optometry¹². Furthermore, the role of Optometry changes and grows frequently. These changes may include new clinical procedures such as new technique, materials, lens designs *et cetera* or expansion in the role of the profession such as use of therapeutic drugs. Regardless of the underlying causes of the changes, the practitioner will need to be educated so that they can deal with the changes appropriately¹². These and several other reasons have led to compulsory continuing education in Optometry in many parts of the world. Embedded in these various reasons is the fact that professionals need to develop themselves regularly to maintain high levels of professionalism and ethics.

During the discussion stage on whether CPD should be compulsory or not, South Africans optometrists were divided on the issue. In a study including aspects of CPD, Fine¹³ found that 51% of the respondents indicated that continuing education should be compulsory and another 49% did not want it to be so. Continuing Professional Development (CPD) is now mandatory for practicing optometrists in South Africa. Although, provision of CPD activities is not a part of the formal duties of the academic staff in the department, it is considered a professional duty to provide continuing educational services to Turfloop graduates as well as other practitioners who may be interested. The department is one of the accredited providers of CPD activities in the country. The department is actively involved in CPD activities. Within the past two years, several CPD activities have been organized in the form of workshops in low vision, contact lenses and binocular vision; seminars on optometric practice management, pharmacology, ocular diseases and binocular vision. Attendance of the activities have been quite impressive, with 80 to 100 practicing optometrists present at each activity. Also, the department organizes CPD activities for optometrists working in the government hospitals in

the Province. The CPD activities are now integral part of the departmental activities.

Physical Facilities

As at the beginning of 1999, all the staff offices and clinics were located in G block. There were eight consulting rooms that were used for clinical training. With the increase in the number of students over the years, the available clinic rooms became insufficient to accommodate the students for clinical training. In 1999, a building (VH building) was provided by the university management and refurbished to provide an additional eight clinic rooms. With recent changes in the optometric curriculum, whereby clinical training starts in the second year, and third year students performing eye examination, the available 16 rooms were not able to accommodate students for clinical activities. In 2004, another building (VI building) was given to the department and refurbished, providing an additional fifteen clinic room. The department therefore, currently has twenty nine clinic rooms and two central rooms for shared equipment such as auto-refractors, non-contact tonometers and visual field analyzers. Included in the twenty nine are one binocular vision, one low vision and one pediatric clinic room. Each clinic room is equipped for comprehensive optometric eye and visual examination. Other facilities include two reception rooms, two instrument storage rooms, one ophthalmic optics room, one scotopic vision laboratory, two lecture theatres and one reading room.

The future of the Department

Staff development program

The smooth running of the department and its development in future will depend largely on a very active staff development programme. The role of the University of Limpopo is usually described as a triad of teaching, research and community outreach. An academic department with limited numbers of staff members with PhD degrees will not be able to effectively meet the teaching and research component of these roles. There is therefore, a need for an active staff development program to upgrade the qualification of the junior staff members in

optometry so that the department may improve its research activities and quality of teaching.

Revision of curriculum

Most parts of Africa including South Africa are rural. If African optometrists are to meet the needs of the rural communities, there is a need to train optometrists who would be able to provide comprehensive optometric services in the rural setting. There is therefore, a need to emphasize public health in the optometry curriculum. Public health optometry has been defined as the use of the full scope of optometric knowledge, skills, and services to prevent disease, to prolong life, and to promote health and efficiency of groups of people, particularly at community level¹⁴. The role of public health optometry as it relates to South Africa has been thoroughly discussed by Shaik¹⁵, but this role has not been adequately reflected in the optometric curriculum. Such revision would include emphasis on public health aspects of optometry and eye care education. Also, considering the limited number of ophthalmologists, granting therapeutic privilege to optometrists in South Africa will empower them to be able to meet the eye care needs of the people living in the rural communities of South Africa. Public health optometry and aspects of ocular therapeutic drugs are a few of the courses that would need to be included in the optometry curriculum at Turfloop in the near future.

Conclusion

The thirty years of optometry education at Turfloop have been momentous years, during which the department has slowly but inexorably grown to maturity. Things have changed for the better within the last decade due to the foundation laid by the pioneer staff, efforts of the current staff, and the support of the university administration.

In spite of the difficulties of the past, the Department of Optometry at Turfloop has contributed significantly to the profession of optometry, not only in South Africa, but also in the SADEC region. Apparently, difficult times are over, it is time to consolidate and expand territories. It is anticipated that this department has a great future in providing optometric education, not only to South Africans but to Africans at large. Obviously, the department which was

once prophetically referred to as sleeping giant⁵ has risen!

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