memoires of an optometrist

Dr. Abraham Bromberg

CONSEJO OPTOMETRÍA® MÉXICO

MEMOIRS OF AN OPTOMETRIST

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Hecho en Mexico / *Made in Mexico*

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I dedicate this book to my lifelong friend and tireless defender of optometry in Mexico, Dr. Jose Francisco Matos Santos, R.I.P.

PREFACE

Many will think that, because it is May of the year 2020 and the famous coronavirus keeps us in quarantine, I had nothing to do at home and began to write the memoirs of my life as an optometrist. The truth is that I had been thinking about this project for a long time, especially because I was lucky –or because I stick my nose where it does not belong– to experience many of the passages of the great changes in optometry in Mexico during the last 56 years. The time has come to share those memories, because I consider them historical and can help so that this profession continues growing and obtains the recognition it deserves. What I write in this book are authentic stories and they occurred just as I describe them.

Optometry is a very old profession, as ancient as the use of eyeglasses, since 1623, or perhaps before, because there were optometrists or eyeglass masters, as they were called at that time. Since then and up to now, technology has made us have equipment that gives us information that we never dreamed of before; the development of new materials for contact lenses, progressive lenses and new drugs that allow us to give solution to the multiple problems that patients suffer.

Today, the profession has changed very much. Before, we only prescribed eyeglasses and contact lenses. Now, we see to the primary and general visual healthcare of the population. Patients come to the offices with problems of visual health derived from cataracts or glaucoma, or diabetes, brain tumors and many other diseases, and we are in charge of diagnosing them and channeling them for the

adequate treatment. Sometimes, the diagnosis can be very hard for the patients as well as for the optometrists; however, there are also great satisfactions, like observing the face of a boy when we give him his first eyeglasses and he can see clearly, or when we know that a patient with low vision to whom we have given a special aid can read or see the photographs of his grandchildren.

Over more than 50 years as an optometrist, for me it is a reason to be proud and satisfied to see how this profession has changed and how it has gradually gained the recognition it deserves. Today, the education that the university students receive in Mexico is the best of Latin America. In addition, practicing it has allowed me to share extraordinary moments with colleagues, and some very disappointing ones too. However, we have remained in the front line to achieve a better visual health for the inhabitants of Mexico.

As you can see, I am in love with this profession. I hope that this book helps you who are beginning to study optometry or for those who have practiced it for 50 years to appreciate it.

HOW IT ALL BEGAN

Frequently, when I give a lecture or talks to groups of students, they ask me why I studied optometry. In reality, there were many events that led me to the decision, and they began since childhood.

When I was three years old, my parents noticed that my left eye deviated to the left and they took me to one of the best ophthalmologists of that time, Dr. Anselmo Fonte, who diagnosed Myopia –I think I had almost five or six diopters– amblyopia and strabismus of the left eye. He told my parents that I did not need surgery and not to let anyone operate me.

At the Optica Panamericana on Madero Street, they adapted my first eyeglasses. All the optical shops were then on that street; the most renowned ones were Optica Economica, Optica Mazal, Optica Madero, Optica Lux and Optica Panamericana. My prescription changed as I grew up. In those years, the fifties –I was a teenager– I met an optometrist graduated from the National Polytechnic Institute (IPN, by its abbreviation in Spanish) working at the Panamericana. As much as I try, I cannot remember his name, but when I visited him, we talked about his profession, his activities and where he had studied.

Having used eyeglasses at such an early age affected my life in many ways. The kindergarten teachers did not let me play with my classmates because they were afraid that my eyeglasses might break –or I don't know what they thought. Therefore, they had me sit with them during recess, which was not so bad, it had its advantages. I was one of the few children with eyeglasses at that time, if not the only one, which was surprising. In elementary and secondary school, perhaps due to my vision, I was very bad at sports (soccer, baseball.) When

teams were organized, they always picked me last and with an expression of “Too bad, Bromberg is on our team.” I was a shy and skinny boy with very thick glasses; however, I managed to make some good friends. In class, I was an average student, I did not excel.

In the last year of secondary school, one had to choose the area of studies before enrolling in upper middle school: biological sciences, physics, mathematics, social sciences or arts and humanities. My uncle was a doctor; he suggested I study optometry, he thought it was a good profession, and I thought it was an excellent idea, something different; a profession I thought I knew well. Then, I went to ask for information at the IPN and was told that I had to enter the technical high school to be able to study my desired profession. My parents wanted me to study at the School. The IPN informed me what subjects I had to study: physics, chemistry and biology, which represented a problem, because biology was from one area and physics from another. These studies at that time were for a two-year period. The Institute approved that I study one area in the first cycle and the other in the following cycle. First, I studied physics, but, at the beginning of the second year, the Biology teacher whose name I forget, and would rather not remember, made a big scandal because she thought that if I had not studied the first course of biology, I should not study the second one. Since the school gave its authorization, the teacher failed me in all the exams. If it wasn’t for my mother who became her friend and asked her to give me private remedial classes in her house, I would have failed and would not have been able to enter the Polytechnic.

The Superior School of Medicine, IPN.

The Superior School of Rural Medicine offered two professional degrees: medicine and optometry. It had that name “Rural Medicine” because they wanted the graduate physicians to work in the towns of Mexico, where their services were needed. Later on the name was change only Superios School of Medicine (ESM, by its abbreviation in Spanish). The degree in optometry began to be taught in 1950 after a series of events.

In the forties, the Association of Opticians and Optometrists was established, and optometrists who graduated from universities of the United States and Germany joined, as well as Mexicans who had learned empirically and had been practicing for some time. They began to teach and give updating courses. However, aware of the fact that optometry was a university profession in other countries, the members approached the National Autonomous University of Mexico (UNAM, by its abbreviation in Spanish) to propose its creation, but were not successful. It was then that they approached the IPN, where it was approved as a technical course, for which only secondary studies were

required, and they did not grant a degree. It was not until 1960 that they began to require high school. After several legal battles from the graduate students, they achieved that a professional degree be granted.

I was unaware of all this information when I approached the Superior School of Rural Medicine. I filled out the application and, since no admission examination was required at the time, the professors interviewed the candidates. The first one of these was with a professor of physiology. He tried to convince me to study medicine instead of optometry, but I insisted that I liked optometry. Another interview was with a psychiatrist who worked in the psychiatric hospital of La Castañeda, an experience I will never forget or some of the patients I saw when I visited it. I used to joke that fortunately they let me out after the interview.

In Mexico City back then, there was no air pollution or traffic; Sanborns was the restaurant where I frequently ate and the Diana Theater screened the best films: *Doctor Zhivago, The Sound of Music, My Fair Lady*, *and Mary Poppins*, among others. Classes began very early, at seven o'clock, and I took the bus to the IPN but on some days I had to go the General Hospital. We observed the professor taking care of his patients. I would be back at school at five o'clock and did not finish until ten at night. Between ten AM and five PM there were no classes because the teachers were working in their optometry shops, their offices or in hospitals.

The school year began in January of 1964; it was an annual plan and the curriculum lasted three years. The school is still at the same address as it was then, in the Casco de Santo Tomas: Plan de San

Luis on the corner of Diaz Miron; it occupied the entire block. There were 28 students in my class: 21 young men and seven young women. It was the first graduating class with so many students; before, there were eight in total. My classmates came besides Mexico from Panama, Costa Rica, Colombia Nicaragua and Bolivia. Like everywhere else, I had excellent professors; some teachers improvised laboratory equipment they themselves had made and they were well versed on their subject, but there were also others that only came to give dictation class.

Below, I describe the curriculum that I studied:

First Year	Second Year	Third Year
Optics I	Optics II	Physiological Optics
Optics Laboratory I	Optics Laboratory II	Physiological Optics Laboratory
Optometry I	Optometry II	Refraction Clinic II
Workshop on Optics I	Workshop on Optics II	Orthoptics
Human Anatomy	Anatomy and Physiology of the Visual Apparatus	Workshop on Optics III
Human Physiology	General Pathology	Ocular Pathology
Applied Psychology	Refraction Clinic I	Optic Apparatus and Ophthalmic Lenses
	Seminar on Applied Psychology	Seminar on Applied Psychology

As the years went by, I realized that we did not see patients, there was no clinic. The optometrists complained that the graduates of the IPN knew much about theory, but they did not know how to carry out an

examination of the patients. In the Superior School of Medicine, the medical directors said that the graduates from that school did not know how to do an appendectomy; they learned it in the hospitals. For them, this was not a problem; things were okay as they were. Therefore, I decided to find an optometrist office shop where I could practice. I was recommended to a graduate of the Polytechnic who had just opened an office on Madero Street and was specialized in contact lenses at a time when they just began to be used. I went to see him and told him what I wanted to do; he mentioned that a new optical shop had just opened on Madero and that he would recommend me with the owner, Frank Devlyn. It was the year 1965.

I went there and told him that I wanted to work and learn without earning a cent. For a year I worked like this at the optician shop on Madero. There I learned to carry out an examination by observing and being present in the offices during the examinations carried out by the empirical optometrists. Little by little, I learned, in addition to what I was studying at the Polytechnic. After a few months, it was me who examined the patients. I was 18 years old and the patients would tell me, “You are very young to be doctor.” At that time, I started to grow a mustache. In the examinations that I carried out, I incorporated tests that were not applied in that optical shop, such as retinoscopy, ophthalmoscopy and some tests of binocular vision. The patients would say, “I have never had such a thorough exam.”

I not only learned to practice vision exams, I also wanted to learn how lenses were polished and mounted, so I began to work in the laboratory which was at the back of the optical shop, until I cut the palm of my right hand with a lathe. My uncle, the doctor, cured me and

gave me several stitches. After this experience, I no longer wanted to go back to the laboratory.

Of all the patients I examined there, the one that impressed me most was my brother, who was then 12 years old and complained that he could not see at a distance. I performed the examination and I cannot forget his retinoscopy, since there were inverted shadows of myopia. I was amazed. Therefore, I have always held that the most difficult patients are your relatives; in addition, one cannot be objective; they do not follow instructions due to the existing closeness with the doctor.

Besides the experience in the optical shop it helped me very much the visits to the American Bookstore, which was also on Madero Street. They offered a great assortment of books, but there weren't any on optometry; however, they did have a subscription service to foreign magazines. I subscribed to several from the United States and one from England, which by the way, almost never arrived. From these specialized publications, I realized that I knew nothing about optometry; I could read in English but knew nothing about the procedures or the theory they contained. Through these readings, I decided to study in a university in the United States. Then, I began to request information by mail and I received catalogues from several universities.

I thanked Frank Devlyn for allowing me work without pay for an entire year and for everything I learned there. He offered me a job which I did not accept, but we left as good friends. I never imagined that I would meet him many times throughout my life.

In the third year of optometry, several important things happened. I was appointed secretary of the group of soon to be graduates, where my friend and classmate, Jose Francisco Matos Santos, was president. We were going to be in charge of organizing the graduation party and seek a sponsor to pay for the expenses. The studies were three years at the time. My friend, Matos, and I were very naïve because we thought that by only inviting an important politician to be our sponsor, he would pay for the party. I don't know how many politicians we visited, but they always left us waiting outside their offices, and we were unable to find a sponsor. What did occur was that, during the waiting hours, we became very good friends. Our friendship lasted all our lives; I was heartbroken when he died. I will later narrate how we were together facing all the changes that took place in our profession.

With Dr. Jose Francisco Matos Santos.

As I said before, I was not a brilliant student in elementary school or in high school, but in optometry, it was quite the contrary. The first year, I received a diploma for the second best average and the following year for the best grades. However, in the third year, I was devoted to the organization of the graduation party and to solve optometry problems in the school and in the country (I am exaggerating), and I did not get good grades, but I passed all the subjects. The truth of the matter is that I did like all that mess that I call “optometry politics.” In addition, since I had the best average in the second year, I was appointed as a member of the School Consulting Board of the Superior School of Medicine of the IPN. We had monthly meetings with the director, the assintant director of the school, a teacher and a student from each area. We revised the files of students with academic problems who wanted to improve and other important circumstances for the school. This experience would later help me when we wanted to change the curriculum to a four-year study plan, but I am getting ahead of myself.

I don’t remember what year it was when I helped as a translator for the visit that the governing board of American Optometric Association (AOA) to the optometry school. I mention this because it later helped me with a classmate in Berkeley. We were able to obtain a bus from the IPN to go with them and drive them around town. However, we had a canvas sign made and placed it on the side of the bus to impress them. The intention was that it read: *Welcome American Optometric Association*, but the sign makers decided to abbreviate it when the full name would not fit and it ended up reading: *Welcome American Optometry Ass*. In English the word *ass* means

“ass”, “donkey” or “butt.” All the Americans laughed hard and took pictures of the sign. By the way, I never saw the photographs published. How embarrassing!

Among the activities we organized for the graduating optometrists, a trip was planned on a bus of the IPN to the two optometry schools in California, in the United States. Everything was ready when the IPN informed us that they could not lend us the bus, so we had to change plans. Instead of 28 students, only six of us who were able to pay for the airplane ticket made the trip: three men and three women. First, we visited a private school that was in Los Angeles, the Southern California College of Optometry; afterwards we visited the School of Optometry of the University of California in Berkeley. I remember the wife of Professor Carter from Berkeley who picked us up at the airport in San Francisco. We were divided up, the three girls stayed at Professor Carter’s house (which I will mention in depth later on), and the three young men stayed at the house of the Assistant Dean, Dr. Henry Peters, who had a beautiful home with an amazing view of the Bay of San Francisco. This professor, by the way, was later the founder and first director of the School of Optometry of the University of Alabama in Birmingham. The schools treated us like celebrities, they showed us the facilities and we were very impressed, especially the research that was taking place in Berkeley. With these visits, I was more convinced than ever before that I had to study in the United States.

Optometry Classmates during the visit of Optometry Schools in California with Mrs. Bernice Carter and Dr. Henry Peters, 1966.

I came back to Mexico and I applied to Berkeley and the Optometry School of the University of Houston. I wanted to revalidate the studies I took at the IPN in Mexico; I did not want to study the entire curriculum again. At the time, university studies lasted six years; today, eight years are required to obtain the degree of Doctor in Optometry in the United Stated and in Canada. I was accepted at the University of Houston, but at the University of California at Berkeley, I was told I would have to take all the courses. So I was prepared to go to the Houston, until things took a drastic turn. In addition, I still lacked my social service and the exam to obtain the degree.

At the end of the third year, only six months of social service was required and a thesis to obtain the degree. For my social service, I

carried out exams of visual selection in a pre-technical high school (secondary) of the IPN. In the afternoons, I worked in the Optica Plaza, also on Madero Street, but this time I got paid; this was my first salary in my life. I was very proud of what I had studied, I liked what I did, I helped patients and also got paid for it. Optica Plaza was strange; on one hand, they sold cameras and developed film and, on the other, there was the optician shop with its eyeglass frames. The optical service was attended by an empiric optometrist from Spain who had many stories of his country and his arrival to Mexico, exiled during the time of Franco in Spain. I took care of many patients and obtained quite a bit of professional experience.

Classmates before the Graduation Ceremony, 1966.

From that class in optometry (1964-1966), many outstanding optometrist graduated; in addition to Dr. Matos, Dr. Lucio Aleman is

the Dean in the Inter-disciplinary Center of Health Sciences of the IPN and he has been a teacher for more than 50 years; Dr. Ernesto Varela was the founder of the optometry studies of the Inter-disciplinary Center of Health Sciences (CICS, by its abbreviation in Spanish) of the IPN in Milpa Alta; Doctors Beatriz and Flor de Luz Arias Melo were founders of the school of optometry of the Autonomous University of Aguascalientes; Dr. Alicia Olivardia, from Panama, was president of the Optometrist Association in her country and she is responsible for optometric legislation; Dr. Gustavo de Alarcon, from Bolivia, has sought the acknowledgement of optometry in his country and Dr. Aurora Rosales who was a optometry professor at the IPN.

Graduation Ceremony, 1966.

At this time, an incident occurred that changed my life: the visit of Professor Dr. Darrell Carter and his wife who I had met at Berkeley. I took the American professor to see the few optometrist facilities existing in the Superior School of Medicine of the IPN. I also took him to some tourist sites in the city and I invited him for lunch to my house.

During the meal, I mentioned that I was going to the University of Houston, because Berkeley wanted me to study the entire professional studies. He asked me if I had good grades and asked me to give him by credits. A few weeks later, I received the acceptance to Berkeley. I was very happy because I was going to one of the best universities in the world and the best optometry school in the United States. I couldn't believe it!

But I still needed to write my thesis. I chose a subject that, for 1967, was totally unknown in Mexico and almost in the entire world: low vision. I requested a book in English from the American Bookstore, *Correction of Subnormal Vision,* by the optometrist, Norman Biers. This was one of the first books written on the subject. I obtained some other articles; a particularly interesting one by Dr. William Feinbloom, a New York optometrist, who was a pioneer in the field of low vision and who I later had the pleasure of meeting. It was not easy to finish my thesis, but I faced it anyway. Those who have opted for this way of obtaining a degree know how difficult it is to sit down and write and organize all the material. My mother hired a secretary to type my manuscript; there were no computers back then. My thesis director was Dr. Javier Oropeza, ophthalmologist and head of the School of Optometry in the ESM of the IPN. He had never heard about the topic and he wanted to change the title of my thesis: from *Subnormal Vision*, to *Infra-subnormal Vision*. Dr. Oropeza was very kind to me; I had to leave for Berkeley in August, and he met me in his home at nine or ten at night after working in his office. My thesis was finally authorized, I presented my professional exam before five professors and I obtained an honorable mention. My family was very proud and happy.


ESTADOS UNIDOS MEXICANOS

La Secretaría de Estado y del Despacho de Educación Pública,

Abraham Bromberg Alterowicz

Optometrista

Sufragio Efectivo. No Reelección.

México, D. F., a 25 de Octubre de 1967.

Optometrist Degree from the Superior School of Medicine, IPN, 1967.

MY TIME IN BERKELEY

The University of California at Berkeley is a public institution and it is not very expensive for California residents, but it is for non-residents and foreigners; therefore, I tried to obtain a scholarship. I approached several institutions, among them, the Embassy of the United States and the Bank of Mexico, but I had no luck, since optometry was not a priority in Mexico, unlike petroleum engineering. My father thought that I should open an optician shop on Madero and not go to the United States; even so, he supported me for the first year. For the following years, my mother found out that scholarships were offered by the Institute of Scientific Research, and she began the corresponding paperwork, until I obtained it. I went alone to Berkeley, first to Los Angeles and, after going through immigration and customs, I took another airplane to San Francisco and, from there, a very expensive taxi to Berkeley.

I was the first-born child, very spoiled and protected, among other things, due to my eyeglasses. I already mentioned that I was shy and, in spite of my age, twenty at the time, I was not allowed to go to Acapulco with my friends; so I have never understood how it was that they let me travel to Berkeley on my own.

When I arrived at Berkeley, I booked in the Telegraph Hotel on the main street, one block from campus. The old wooden floors of the hotel creaked; there were no bathrooms in the rooms, there was one for the entire floor; the smell of dampness filled the rooms. Outside, on Telegraph Street, there were many young men and women wearing long un-kept hair and very outrageous clothes. I felt like I had arrived on another planet. I arrived a couple of weeks before school began and

the dorms were closed because I still had to take an English exam. The Test of English as a Foreign Language (TOEFL) did not exist then; now, it is an admission requirement in many universities in the world.

When I arrived at the hotel, I left my suitcase and went to Dr. Carter's office to let him know I had arrived. He asked me where I was staying, and when he heard my response, he took the car keys of his white Ford Galaxy, and said, "You need to get out of there, you are staying at my house with my family."

Dr. Carter lived in a wooden house in Oakland with his family and four daughters. My stay there was a unique experience. I knew first-hand how a family lives in the United States. For example, there was always a salad before the main course, and grapes were forbidden in support of the strike led by Cesar Chavez in California. I also went with them to eat at a Chinese restaurant; I had never tasted Chinese food nor did I know how to use chopsticks. The first weekend, I was taken to see Lake Tahoe, a beautiful place, surrounded by mountains. I went back there many times with Dr. Carter. One winter, I took a continuous education course there, everything was covered with snow and it was very cold, or so I thought because I had never been in a place like that. Another visit coincided with the inauguration of the Olympic Games in Mexico in 1968. Since the cottage where we stayed had no television reception, Dr. Carter lent me the white Galaxy to go to a nearby hotel so see the ceremony.

When classes began, I moved to a dorm for Law School students. It was in front of the football stadium and the International House, where most of the foreign students lived. My dormitory, Manville Hall, had the advantage that it was for older students who had

finished their Bachelor studies, so the place was very quiet and with spectacular views of the San Francisco Bay and Golden Gate Bridge. In addition, the meals were quite good, although it was dorm food, I liked it. Another advantage was that it was connected to the School of Law, Boalt Hall, and I could study in the library or in the study rooms, that were very quiet and private. I have visited many universities throughout my life and I can say that the campus of the University of California at Berkeley is beautiful, it is amazing. With all the trees, the streams and the old buildings, it is pleasure to walk through it and breathe the air. Perhaps I am prejudiced, but every time I go back there, I thoroughly enjoy walking around campus.

From the start, the school appointed Dr. Carter as my tutor and he authorized the classes I should take. Since I was a student from a foreign country, I was allowed to take optometry subjects from different years to complement what I hadn't studies at the IPN in Mexico.

The years I spent at Berkeley, 1967-1969, were marked by much turbulence throughout the world, especially in the United States. There were protests against the war in Vietnam, where many people died, and where many students were sent. Berkeley was one of the places where there were more protests. I remember that, in my first week in class, new students were invited to a welcoming meeting in a central building of the university. Outside, a protest was organized and, in a jiffy, the police arrived and sprayed pepper gas to disperse it. Those of us who were present at the meeting had to sit on the floor and lean against the walls, because tears came to our eyes and we had trouble breathing. It is sensation I will never forget. In addition to the Vietnam War, protests took place for many other reasons, among them the

construction of *People's Park*, where the university wanted to put up a building. There was also the famous movement of *Peace and Love*.

Since the university was founded in 1868, I was there for the celebration of the centennial; many activities took place to commemorate it. The Optometry School was founded in 1923. From the beginning, the school has been outstanding for its professors, its facilities and, especially, for its research.

School of Optometry University of California, Berkeley, 1968.

A few weeks after the beginning of class, my mother visited me to make sure how I was living. I remember that we visited the Dean of the Optometry School, Dr. Meredith Morgan, an eminence for his research in phorias and vergences. During the entire time I was there, he was very kind to me and I met his wife and his daughter.

In those days, the university had changed from a semester to a quarterly system, which seemed to me very complicated and short, especially since I had come from a yearly school system. The University of Berkeley currently has gone back to the semester system.

In the first quarter, the subjects of English, statistics and calculus were compulsory. The latter two were very hard for me, since I had to take them for two quarters, but I finally passed them. The English course was basically conversation; the classes were a lot of fun; we were all foreigners, and listening to anecdotes of students from all over the world seemed very interesting. I also took a class in Binocular Vision Anomalies with Dr. Merton Flom. Let me remind you that I had obtained the degree in Mexico and could practice optometry professionally. However, I realized that I knew nothing about the subject; everything Professor Flom taught was new to me: the Hirschberg test, the Worth dot test, Bagolini lenses, among other issues. He was an extraordinary teacher, he explained everything clearly; his class was a delight, I did not want the two-hour class to end.

Another different and important aspect was that we had books; it was compulsory for us to read certain chapters before each class, and there could be a quiz on these texts. I think I am not explaining myself properly: in Mexico there were no books on optometry, neither in Spanish or English. The teachers at the IPN did not know about them and, even if they were familiar with them, they did not speak English. Besides the books on optometry, there were also the ones on optics, ocular physiology, ocular pathology, clinical refraction by Irvin Borish, and many others. I could not believe it. Some of the texts had been

written by the teachers at Berkeley themselves; they became basic references. I can name, for example, “Contact Lens Practice”, from 1965 by Professor Dr. Robert Mandell, who taught me Physiology of the Anterior Segment of the Eye and Contact Lenses. I could not believe it; it was like being in paradise.

I had to study very hard because I felt that the quarter had just begun when the mid-term exams began, and suddenly, we were in the midst of finals. Life went by very fast; there was not much time for anything else. During the summer quarters, I saw patients in the school clinic. The system of attention was the following: every student from the third and fourth year had a patient he had to examine for a maximum of one hour and half. Also, he had to fill out a clinical format and had to have finished all the tests specified in it. There were a great number of examinations rooms, all well-equipped and had equipment that Mexican optometrists in Mexico knew nothing about, such as the tonometer and the slit lamp. In the contact lenses clinic, we had to make the complete adaptation of the case and teach the patient how to use it. In the “pre-clinic” class and in the laboratory, all the students had to learn to use all the equipment in the first two years; so, when one reached the third or fourth year, the professor only supervised the results and analyzed the clinical history, the diagnosis and the treatment to be followed by the students. This was new to me; I had no idea how a clinic worked in an optometry school.

There were no classes in the summer quarters; therefore, there were no exams; the work at the clinic was graded by our performance there and, since I had experience making examinations, I felt no pressure; in fact, it was quite easy. During those months, I had the

chance to see San Francisco: I visited almost all the museums; I saw the play, *Hair,* that was causing excitement and scandal; I went to the famous Fillmore to listen to Carlos Santana, who was just beginning his career; I also went to Golden Gate Park which was filled with *hippies*. I am talking about the years 1968 and 1969. The girls were beautiful, but this is an optometric memory and I don't want to get off the subject, in addition, who would be interested in those adventures where a learned a great deal, and not precisely about optometry.

I also took the opportunity to visit several optometrists' offices near Berkeley. At the time, the American Academy of Optometry had promoted an important movement so that optometrists could work in offices whose exterior did not look like an optometrist's office. In fact, to be member of the Academy, one had to send photographs of the exterior as well as the interior of the place where one worked. Let me explain further. In Mexico, at that time, and even today, there is still the idea that the optical shop should be at the entrance, and the examination room should be in back. In the United States, the optometrists designed their facilities in the following order: the waiting room, the examination room and, finally, the optical shop, the exterior did not look like a business. What was important to them was the service offered by the optometrist and the sale of eyeglasses was in second place. By the way, the examination had a price and it was quite expensive, if additional tests were required, such as tonometry, these were extra charges. If the patient needed eyeglasses or contact lenses, these were charged separately. This system seemed quite good to me and I told myself that I would work in the same way when I came back to Mexico. When I explained to some American

optometrists that the examination was free in Mexico, they looked at me with surprise. Furthermore, they stared at me, as if I came from another planet when I told them that anyone in Mexico could wear a white coat and that, in a chain optical shop one could learn to move the lenses in the phoropter –even without having basic training. I described how in a few weeks practice, patients called you “doctor” and you could prescribe eyeglasses or contact lenses. They could not believe it.

Another one of the visits I made, following Dr. Carter’s instructions, was to his brother-in-law, Dr. Don Brucker, an optometrist graduated from Berkeley. Dr. Brucker had his office and laboratory for contact lenses in San Diego, California. He was a kind man, very tall and strong. In his laboratory, he made soft contact lenses. He had hired a scientist from Berkeley and I believe he was later in touch with someone in Europe. He explained what he did and later, when I returned to Mexico, I bought from him soft contact lenses which he sent to my office until they opened distributors of contact lenses in Mexico.

My first patients fitted with soft contact lenses were in 1971; I believe I was one of the first persons to adapt them in Mexico. Incidentally, Dr. Brucker obtained permission from the Food and Drug Administration (FDA) to sell these lenses sometime after the Bausch &Lomb Company did, which helped Dr. Brucker to sell his laboratory in several million dollars and be one of the richest optometrists in the United States. He was so wealthy that he gave a significant donation to the School of Optometry in Berkeley. I once met him in a congress of the Academy in New Orleans; he invited me to one of the finest restaurants.

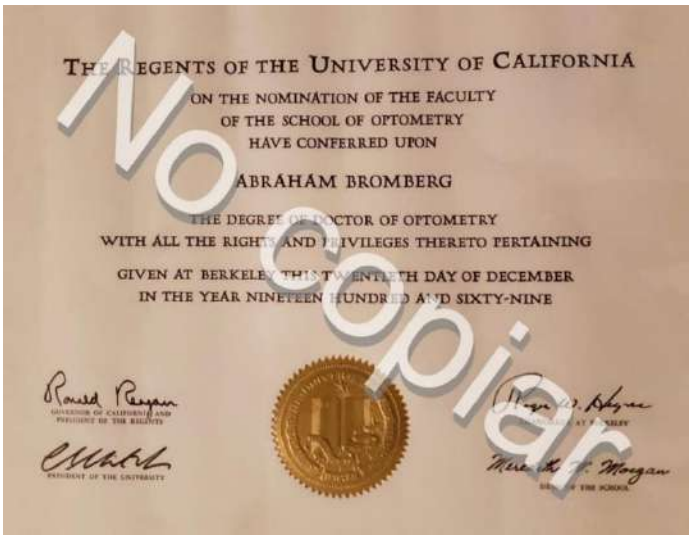
At the beginning of this text, I narrated the anecdote of the visit of the American Optometric Association to the School of Optometry of the IPN and of how the sign maker changed the welcoming sign. I kept in touch with the contacts I made during the visit. At Berkeley, a classmate of optometry of Mexican origin received a document that required him to join the army to go to Vietnam. So I called the colleagues of the AOA who worked in the offices and told them about the situation of my classmate. They changed the orders of the document, since optometrists were not sent to war because they were needed to care for the visual health problems. This classmate has always been very grateful for what I did.

In 1968, an edition of the congress of the American Academy of Optometry took place in San Francisco. During the congress, at least 15 rooms were prepared where numerous continuing education courses and workshops were given for four days on every subject relating to optometry. There were scientific posters. The results of the research were presented at specific times. I was impressed; it was and still is the best congress of optometry in the world. I requested my membership to the Academy and I have been a *fellow* since 1970. In fact, I am now an *Emeritus Fellow*, a distinction that makes me very happy. I have attended every congress since 1968, with the exception of the one in 1975 to which I couldn't go because my first child was born. I also applied for membership to the American Optometric Association, and was accepted; I have been a member since 1968.

Another thing I found out was that, in the United States, every state requires a license to practice as an optometrist. To obtain the license, in addition to have graduated from a recognized school, one

must pass an examination of the National Board and another exam of the State Board. Dr. Carter insisted that I take these examinations; I am not sure if he wanted me to get the California license or if he wanted to verify that I knew what it takes to be an optometrist. The exams are very hard and they take place for several days. Fortunately I passed them and have the license but one must pay an annual fee. One must also demonstrate that one has taken 20-hour continuous education courses a year which are approved by the California Board. I take these courses every year during the meetings of the American Academy of Optometry.

In December of 1969, I concluded the doctorate in optometry. My degree is signed by Ronald Reagan, who was then governor of California and who was later to become president of the United States of America and, of course, it is signed by the director of the school, Dr. Meredith Morgan. I not only learned about optometry, but I learned to live alone, I learned to value how important other people's help is, I learned to be independent, I learned a new vision of life. All this has always been useful to me.


THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
ON THE NOMINATION OF THE FACULTY
OF THE SCHOOL OF OPTOMETRY
HAVE CONFERRED UPON
ABRAHAM BROMBERG
THE DEGREE OF DOCTOR OF OPTOMETRY
WITH ALL THE RIGHTS AND PRIVILEGES THERETO PERTAINING
GIVEN AT BERKELEY THIS TWENTIETH DAY OF DECEMBER
IN THE YEAR NINETEEN HUNDRED AND SIXTY-NINE
Ronald Reagan

Doctor of Optometry Degree, University of California, Berkeley, 1969.

The School of Optometry of the University of California at Berkeley has participated in Mexico in many ways. Other Mexican optometrists have also studied there to obtain their Doctor degree in optometry. The first one was Dr. Carolina Aros, who also received a great deal of help from the Carter family. One of my former students, Dr. Juan Milla, came to see me when I was a professor at the IPN to tell me he wanted to study at Berkeley, but they had asked him to study the entire curriculum again, like what happened to me some time ago. I called Dr. Carter on the telephone and he asked me if Juan was a good student and for information about him. He was accepted in the school which later helped his brother, Alberto, to enter.

In the seventies, Dr. Carter invited Dr. Jose Francisco Matos to visit the optometry clinic and learn about its operation. When Dr. Matos came back to Mexico, he implemented the clinic in spite of the lack of support and the hostility of the directors of the school, but I believe I am getting ahead of myself. Dr. Carter decided to spend his sabbatical

year in Mexico teaching at the IPN. My mother found him a house in the Condesa neighborhood for his entire family, and also a school for all his daughters who arrived by airplane together with Mrs. Carter. Meanwhile, Dr. Carter and I drove the famous white Ford Galaxy to Mexico City. The journey took several days; we saw different cities and it was not tiresome; we took turns to drive on the highways.

Dr. Darrell B. Carter, 1970.

During his classes at the IPN, I supported him as an interpreter. I also translated a conference given by Dr. Irvin Borish. I don't remember what year it was, but we took a photogragraph and talked for a long while. I would meet him frequently in the congresses of the American Academy of Optometry; he would say hello and ask me about the School of Optometry in Mexico, and he wrote and signed a special note for me in an edition of his biography. I always thought he looked like Albert Einstein, there was a great physical similarity. Dr. Borish will be remembered by his conferences, his books on clinical refraction and for being one of the founders of the School of Optometry in the University of Indiana.

BACK TO MEXICO

On my return from Berkeley, I went to talk to the director of the Superior School of Medicine of the IPN to inform him that I had finished my studies at Berkeley and that I would like to teach Optometry; I reminded him that he knew me well as a student and as a member of the board. He told me to see him in a week. I went back and he offered me a 36-hour position as a teacher. Full-time was forty hours. I was very pleased and I began to teach immediately. However, this caused me a lot of problems with the teachers who already taught at the school, because most of them had only eight or twelve hours as a part time professor and many of them had been teaching for a long time; in fact, most of them had been my teachers. At the meetings, I always suggested changes in the curriculum, the implementation of the clinic and new subjects that I considered were needed. However, my ideas were always rejected. I had problems to such an extent that they asked me to do other activities outside the school; for a time, I was commissioned to the Institute for Blind and Visually Impaired Children, and on another occasion, to the Direction of Rehabilitation of the Ministry of Health, where I worked with Dr. Guillermo Ibarra in a project to regulate optical shops and the empiric optometrists, but with no success.

Some years later, around 1974, Dr. Matos became head of the optometry and took me back to the Superior School of Medicine of the IPN. Together, we began to make important changes. One of them was the clinic of optometry. Based on our experiences at Berkeley, Dr. Matos, Dr. Aros and I decided to implement the clinic in the school. The first thing Dr. Matos did was to take possession of a very large

classroom that was in the school of medicine and wasn't used much. Some teachers of medicine complained, but they got another classroom on a different floor. I had told Dr. Matos about some photographs of a clinic in the school of optometry of London where I saw that they used black curtains to divide the examination rooms. I don't remember where, but Dr. Matos obtained them, and we began to create them. Moreover, one day when he was hanging them, standing at a desk, he fell down and broke a foot.

With Optometry Students of the Superior School of Medicine, IPN.

We had no equipment, so we began to use trial cases, trial frames and visual acuity charts which we hung on the wall. Although time and time again, we requested equipment to the direction of the school, we were unsuccessful. They told us that the physicians did not learn to do appendectomies at school, but they learned it in the hospital, once they graduated. We tried to explain that optometry was like odontology; the students learned in the clinics of the school, supervised by the

teachers. Nevertheless, they asked why we wanted so many offices for, that one student could examine the right eye and another one could examine the left eye. With this, they showed that they knew nothing of binocular vision, and in general they insisted on the idea that the students entered the clinic to see how the exam was done by a teacher, they did not understand that, to learn to make an exam, an adequate diagnosis and treatment, the student must evaluate a patient, carrying out all the tests. I understand that, in Mexico, there are still schools of optometry that work like the IPN in the seventies, in other words, without clinics or that offer very little clinical experience.

I don't know how, but Dr. Matos was able to get Mr. Frank Devlyn to visit the clinic and he also asked him for a donation of divisions, because it was not easy to work with the curtains. Mr. Devlyn sent the designer of his optical shops who placed very beautiful and functional wood divisions.

One of the ultimate wishes of the teachers, students and graduates of the IPN was the creation of the Superior School of Optometry in the Institution. It is an objective that we have tried to reach many times, unsuccessfully. I participated in one of those attempts: the clinic of optometry started to have more and more patients. Dr. Matos mentioned that he would do an optometric examination to the mother of the general director of the IPN, Mr. Sergio Viñals, who served in the position from 1976 to 1979. It was Dr. Matos who carried out the examination and, during the consultation, asked Mrs. Viñals to intercede. We would ask the general director to accompany us to a breakfast that we would organize to present a project that we were involved in.

The event was carried out at the Imperial Hotel on Paseo de la Reforma; the optometry teachers attended and we had the presence of Mr. Viñals. On the recommendation of Mrs. Viñals and because the general director liked horses, we gave him a sculpture of a horse. We presented the whole project to create the Superior School of Optometry at the IPN, from the blueprints to the architectural design of the building, which we located in a vacant lot, property of the Polytechnic, in the Casco de Santo Tomas. Mr. Viñals was very kind; he said he would study this project, but we never heard of him again. However, Dr. Matos and I were very happy, because we had achieved that a general director heard us and learned what optometry was about.

At the end of the seventies, I was part of an important change in the school of optometry; it was the curriculum. The program continued being of three years; however, we began to organize some subjects in an extraordinary manner and without curricular value, such as *Contact Lenses* or *Anomalies of Binocular Vision* of which I was in charge –Dr. Flom taught me about it at Berkeley. Since these and other subjects did not appear in the study plan, the students began to request some proof that they had studied these subjects. Together with Dr. Aros, who was back from Berkeley, Dr. Matos and I decided to devise a new four-year study plan. We asked all the schools in the United States, Canada and England to send us their curriculum programs. I remember well that we turned a small classroom into an office; on the walls, we pasted papers with the names of the subjects of each year and in this way we put together the new plan for the IPN. This program was well ahead of its time; for example, we assigned a whole semester

to pharmacology. Many schools of Mexico and Latin America adopted the model and, although it has been modified several times, it continues to be a good study plan. (See the annexed.)

Once we finished designing the new study plan, we presented it to the director of the ESM. When he saw the bulky package we gave him, he said: “We are beginning to modify the curriculum of medicine; when we finish we will begin yours. “We were really upset! Ours was ready; the one for medicine had not even been started. This is an example of the relation we always had with the direction of the ESM. The school of optometry was the ugly duckling and received little support.

Dr. Matos had acquaintances in the central offices of the IPN in Zacatenco. He was very popular, not only in the IPN.I remember once when we were walking on a street downtown, he seemed like a politician, greeting many people. Well, as I mentioned, Dr. Matos, through his contacts in Zacatenco, achieved that the committee in charge of approving the study plan gave us time for a meeting to revise our proposal. I remember it as if it was yesterday: Dr. Matos and I arrived at the meeting; we distributed the new plan among all the attendees and took our seats. The director of the ESM arrived; he was also invited since optometry was one of the two studies of the school he headed. At the beginning of the meeting, the director mentioned that the study plan had not been revised in the School’s Advisory Council in the ESM. Then, one of the councilors turned towards us and asked, “Was this approved by the teachers?” We said yes. He continued, “If the optometrists have already approved it and they are the ones who know about their profession, I propose we approve it.” It

was unanimously approved by the committee. The director of the ESM left without saying good bye to us.

In the following meeting of the School Advisory Council of the ESM, the director told us: “I don’t understand what happened; this is most irregular and the committee of study plans has already authorized the new plan of optometry, but we should have approved it first.” At this same meeting, it was unanimously approved. Dr. Matos and I were very nervous of what was going to happen, but the four-year program had finally been approved and with all the new subjects. We were very happy. I think this occurred in 1976, and it began to be taught in 1978.

Two days after it was approved, Mr. Frank Devlyn called Dr. Matos and mentioned that he thought that the new four-year study plan should not be implemented because it lasted too long and there were many foreigners studying optometry who had to return to their country of origin, and that there were not enough licensed optometrists in Mexico. After a while, and promoted by the Devlyn group, the training of an optical technician was created at the National College of Professional Technical Education (CONALEP, by its abbreviation in Spanish), afterward, they would become “optometry technicians.” At Conalep, the students study high school and the subjects of refraction and contact lenses are added. The Devlyn group has donated consulting rooms to these schools. It is important to have technicians in the area of optometry, as well as technicians in odontology, medicine and other health areas. However, the graduates of the optometry technician career think they can work as an optometrist, and want to prescribe glasses and contact lenses.

THE OPTOMETRY ASSOCIATIONS, A FUNDAMENTAL PART OF PROFESSIONALIZATION

I have been involved in the organization of many associations of optometrists; some work well, others average and others have disappeared. The first association in which I was involved was established around 1967, The National Association of Graduated Optometrists of the National Polytechnic Institute (ANOEIPN, by its abbreviation in Spanish.) If I remember correctly, the board of directors was formed mostly by teachers of the IPN. It eventually disappeared.

Afterwards, the Mexican Optometry Society (SMO, by its abbreviation in Spanish) was formed; I don't remember when. The constituent assembly was carried out at the ESM of the IPN and its first president was Dr. Mauricio Barky. He graduated from the IPN; in fact, he was the first one to obtain the degree in 1960, after a legal battle that opened the way for those who followed and had high school. He was my teacher in the first year of optometry; in addition, he was the owner of Optica Madero and a factory of frames (AMSA.) He was a very proactive person with very good ideas. He opened an office in a building on Baja California Street and hired a secretary-receptionist. This association intended to seek that optometry be legislated and regulated by the government. They asked me to be in charge of the publication of a scientific magazine called *Revista de la Sociedad Mexicana de Optometria (Magazine of the Mexican Optometry Society.)* It was published quarterly and included translations to Spanish of articles from American optometry magazines. The

magazine was published for two years. This society also ended up disappearing; I never understood why.

The following association in which I was actively involved was the National College of Optometrists which was established in 1976. Its first president was Dr. Matos; at some point, I also became president. At the beginning, the College had much support from the graduates. We achieved the recognition from the Direction of Professions of the Ministry of Public Education (SEP, by its abbreviation in Spanish.) Just like the prescriptions from physicians and dentists who are registered in the Ministry of Health, the College sought that the prescriptions of the optometrists also had the registration printed so that this action would help to regulate the professional exercise. We were able to obtain such a registry (see annexed), but I am afraid it did not help because, some years later, the Ministry of Health eliminated it for all the professions, claiming that the professional certificate was enough.

The National College of Optometrists was very active in several initiatives to professionalize optometry in Mexico. One of them has to do with the publication of the General Health Law on December 26, 1983. I don't remember how, but several members of the College had already seen the draft version of the legislation. In Article 79, it listed the professions that required a degree for their exercise and, there, the word "optometry" appeared, together with medicine, odontology and other health related professions. When this law was published in the Official Gazette, optometry had disappeared. Surprised, we ask for an appointment at the Ministry of Health so that they would explain what had happened. The Under-secretary of Planning, Jose Francisco Ruiz Massieu, received us; we even talked about contact lenses and he told

us he used them. When we asked why optometry had been deleted, he told us that he received a call from the President's office with the order to delete it because it was not considered convenient. We were very surprised, we didn't know what to say and we were very upset when we left. Some people have told me that they though this scene was an urban legend but it wasn't; I was there when it happened. What they intended with this was to minimize or eliminate our profession. Future generations of optometrists were not aware of the political force that the optic chains had and have in our country. Then, we hired a lawyer, we sent a letter of complaint and they sent us back a response that I attach in the annexed. The students of optometry carried out a demonstration from the Juarez Monument to the main square to protest for what had happened. It did no good. They were ignored.

Finally, we were able to modify this law: it was published in the Official Gazette on February 12, 2015. Thirty two years had to go by to have the word "optometry" included in the General Health Law. They say that those who persevere conquer. The National College of Optometrists also disappeared, due to lack of interest from the members as well as its internal disorganization. Although there are also those who say that it disappeared because it was convenient for the optic chains.

First CODIFE Board of Directors, 2010.

Together with Dr. Matos, I founded another organization in 2010, the College of Optometrists of the Federal District (CODIFE, by its abbreviation in Spanish.) I was the founding president. The idea was to have a group that represented all the licensed optometrists in Mexico City and that, in addition, it could help us to be part of the Asociacion Mexicana de Facultades, Escuelas, Colegios y Consejos de Optometria, A.C. (Mexican Association of Faculties, Schools, Colleges and Councils of Optometry, A.C.; AMFECCO, by its abbreviation in Spanish), of which I will talk later. I worked almost full time to the CODIFE. In the Direction of Professions of the Ministry of Public Education, they required one hundred members to be able to register it. Let's get them! We began to send invitations by email to licensed

optometrists; if they accepted, they had to send an application for membership and copy of their professional license. For our part, we gave them a membership certificate and a pin. (See photograph in the annexed.) We invited them to conferences and social events that we organized, we even had a karaoke. Finally, we gathered almost 160 members and we were able to obtain the registration. We held several interviews where we presented the situation of optometry in Mexico to government officials of the Federal District, among them, the Secretary of Health and the Secretary of Public Education, the School of Superior Studies Iztacala (FES-I), of the UNAM and the General Director of the IPN.

With the objective of presenting the problem of optometry in Mexico and seeking the support to solve it, we also requested an appointment with the president of the UNAM who, at that time, was Dr. Jose Narro, but he sent us with the Director of the School of Medicine, Dr. Enrique Graue. I remember that we presented what the National Council for Standardization and Certification of Labor Competences (CONOCER, by its abbreviation in Spanish) did, dependent of the Ministry of Public Education. This body certifies the competences and what the owners of optic chains achieved and that the competences to carry out exams and prescribe glasses or contact lenses were certified for persons who didn't even have basic education; later I will describe this in detail. Dr. Graue asked us: "And where were you when this happened?" We remained silent; we did not know what to answer. At that meeting, we suggested the creation of a degree in optometry at the National School of Superior Studies (ENES-Leon), of the UNAM,

since odontology was taught at the campus. He thought for a while and said nothing.

One day when I was checking the newspaper, I read that a pharmaceutical laboratory was giving awards to the best students of medicine and I thought we could do the same. We established the CODIFE Award to the best students of the schools of the UNAM and of the IPN in Mexico City. The winners were awarded a very nice diploma of metal and wood, plus an amount in cash to buy equipment or whatever they wanted. There were two editions of these awards for two consecutive years. Then came the elections to renew the Board of Directors and I decided that the new generations should take over the College. The CODIFE is still in operation; frequently it offers courses of continuous education and now faces the situation of changing the name because the Federal District is now called Mexico City.

CODIFE Award Ceremony at the Hotel Sevilla Palace, 2011.

PROFESSIONAL PRACTICE

I would like to go back in time a little, again to my return from Berkeley. I described that the optometrists in California at the time had offices and also about the visits I made to these establishments. I got the idea that I too would also open an office. My father always considered that I should open an optical shop on Madero Street, where the most important optical shops could be found; it was a good business. But not for me, besides teaching, I looked for premises in a building that did not house health professionals. I found it on the seventh floor of a building on the Street of Tlaxcala, one block from Insurgentes and Baja California. I bought equipment on credit from the American Optical company, which no longer exists: an armchair, a post, phoropter and a projector. From a different company, I bought a Bausch & Lomb keratometer and don't remember with whom I began to check the purchase of a Zeiss slit lamp. I already had the ophthalmoscope and the retinoscope, because I bought them when I was studying; I think they were also American Optical. I also don't remember who I bought the trial lens and trial frame. From Berkeley I brought a McKay-Marg electronic tonometer which gave the results on a strip of paper and looked like an electrocardiogram. No anesthetic was used and the examination head was covered with a plastic cap that looked like a prophylactic for midgets –it was always a good joke with the patients.

I had an uncle who was an architect and he helped me with the design of my office: with a waiting room, optical shop for the sale of eyeglasses, an area for the examination equipment and an area with tables to make visual therapy with Bernell equipment that I also

brought from Berkeley. Something very strange happened: the company that sold the slit lamp told me that there was a mistake in an order for the Social Security and they offered me a lamp with 50% discount, but it had to be paid cash, of course with invoice and guarantee. I asked for a loan and I bought it. At that time, Germany was divided and the lamp was from the communist sector. I still have it, although it is an antique, of all the slit lamps I have it is the one that has the best optics; one can see very clearly and well defined.

All my colleagues with offices in the United States told me that if I sat and waited for the patients to arrive on their own, no one would come, and less so to a seventh floor. Therefore, I decided to participate in service organizations such as the Kiwanis, who were like to Rotaries or the Lions. The Kiwanis met at the Alameda Hotel once a week and they were really a small group that ended up disappearing. I think I should have joined the Lions because they are very interested in visual health around the entire world. I was not interested in the Rotaries because Frank Devlyn had a very important position there. I also entered the Toastmasters, a group that, besides being very fraternal, sought that the participants learned how to speak in public. They say that most people are more afraid of speaking in public than of dying. In this group, they prepared the members to improvise or prepare speeches. When I arrived to the first meeting, among the participants, I found all the Devlyn brothers. I stayed and learned a lot about the Toastmasters; their teachings have helped me a lot in life because it is very important to learn to speak in public.

In 1977, I closed the office on Tlaxcala Street because I took a sabbatical at the University of Houston. A little later I will tell you how

this was. On my return from Houston, I opened a new office, now on Nuevo Leon Street, in front of Spain Park. This time, I was on the fourth floor and had a beautiful view of the park. I had also kept all the equipment and furniture. I quickly settled in; I arranged a section of the optical office for the sale of eyeglasses. I began to have a great number of patients with low vision whom I helped mainly with microscopic eyeglasses to be able to read. In this office, I experienced the 1985 earthquake. Several buildings in the neighborhood collapsed; the Colonia Condesa has always been very affected by earthquakes. Fortunately, in my office only some figurines of optometrists were damaged which I started to collect since 1980.

MY TIME IN HOUSTON

One of the things that impressed me most and continues to impress me from Berkeley is the quality and quantity of research that is generated at the School of Optometry. Its Master's degree and Doctorate programs in visual sciences are one of the best in the world. However, there are also other schools of optometry with very good research programs, such as the University of Houston, the University of Indiana and the University of Ohio. I always wanted to do research; I felt I had to. The IPN offered a sabbatical to the full-time teachers, which I was at the time, for research activities and not to teach; this had to be sponsored by the Institution. Since 1977, I began to seek entering the Master's degree in Sciences, with specialty in Physiological Optics at the University of Houston. It was not easy; I took a course at the Iberoamericana University to prepare for the Graduate Record Examination (GRE), a standardized exam with analytical and writing knowledge, as well as quantitative and verbal reasoning. Fortunately, I passed it; the TOEFL already existed but, as I had obtained a degree in an American university, I did not have to present it.

School of Optometry, University of Houston, 2020.

As mentioned a few lines back, I closed the office. I was married, with a three-year old child and we went to Houston. We arrived in the summer to look for an apartment and buy a car. The heat and the humidity there were overwhelming; we could not visit more than two or three apartments without being exhausted. I did not have a scholarship; we lived off my salary as a teacher of the IPN which I received monthly and the School of Optometry gave me a job as an assistant to Professor Dr. Jerome Rosner; I was in charge of the laboratory of visual therapy. The School of Optometry of the University of Houston was in a very well equipped new building; the clinic was on the ground floor and it was impressive; it had more than 120 examination rooms for primary care, contact lenses, low vision, visual therapy and pathology. But I did not go to see patients; I went to the area of research, on the second floor. All the students of the Master's and Doctorate's degree had a private office assigned with an area for

research or work in the back. I made good friends, I studied and worked hard. My experience was very different from that at Berkeley; now I was married and had a son, and I did not live on campus, but in an apartment forty minutes away from the school. At the time when we travelled, the United States experienced a shortage of gasoline and since the car used up a lot of gasoline and I had to make a long queue to fill it up.

With Dr. Dennis Levi when he was Dean at the Optometry School of the University of California, Berkeley

There were several researchers in the school; one of them was Dr. Dennis Levi, who was finishing his doctorate in Physiological Optics with a research on visual evoked potential; he was my director of research thesis. Mine was the first one directed by Dr. Levi. Its title was *Binocular Interactions in the Visual Evoked Potentials.* Another researcher who was also finishing his doctorate studies at that time

was Dr. Earl Smith, who I used to meet in the hallways with the monkeys he used for his research. Later on, he became the Dean of the School of Optometry in Houston. At the end of the sabbatical, I returned to Mexico and was reincorporated to my classes at the IPN. However, I had not yet finished my research in Houston and the presentation of my thesis. For more than a year, I had to travel frequently to finish. The work of my research consisted in measuring the evoked visual potentials monocularly in several persons and observe the differences when the potentials were measured binocularly.


The University of Houston
Central Campus
has conferred upon
Abraham Bromberg
the degree of
Master of Science in Physiological Optics
with all the rights and privileges appertaining thereto.
In Witness Thereof, this diploma duly signed has been issued and the seal of the University hereunto affixed.
Issued by the Board of Regents upon recommendation of the faculty at Houston, Texas, on this tenth day of May, A.D. nineteen hundred and eighty.
Chairman of the Board of Regents
Charles E. Bishop
President
UNIVERSITY OF HOUSTON
Founded 1927
Dean, College of Optometry
Chancellor

Master of Science Degree University of Houston, 1980.

BACK TO MEXICO

In 1982, el Dr. Matos left the head of the career of optometry and took an administrative position in the Direction of Biological Studies of the IPN in Zacatenco. After a while, I was appointed as head of optometry studies. It was a time of much tension; I did not like being in this position. There were many meetings, I could not teach, I fought with many people, although, on the other hand, I also had many satisfactions. For example, I gave the graduation speeches to the graduating classes. While Dr. Matos was head, the clinic of the school grew a lot: it was on the ground floor of another very new building. I don't remember exactly how many consulting rooms there were; I believe around 16. We examined numerous patients and quite a bit of money came into the school. The directives of the Superior School of Medicine who previously opposed the clinic of optometry were now happy, because additional money was coming into the ESM.

At that time, there was a procedure to elect the new director of the School of Medicine; the students, teachers and administrator of the two careers participated in the voting and –surprise! –I was on the shortlist. Many doctors in administrative positions could not believe it, although they were not worried that an optometrist was on the shortlist, because there were also two physicians. The general director of the IPN called us and congratulated us. He said he considered that any one of the three would do a very good job as director. However, logically, he appointed a physician.

The real problems started with the new director. In all the official documents he addressed me as "Opt. Abraham Bromberg" At that

time, the optometrist usually called themselves “Opt.”, something that bothered me a lot, because I did not know if it meant “optician”, or who knows what it meant. After I returned from Berkeley, I wrote “Dr.” before my name, because I am a doctor in optometry. Although I explained this to the director, he continued abbreviating and addressing me as “Opt.” in order to make me mad. Thus, in the official documents that I sent, I addressed him as “Med. Cir.” (Medico Cirujano), since when studying medicine this is the degree that is obtained in that school, and not doctor. It was the beginning of war.

We also had problems regarding the clinic of optometry; plenty of money was coming in to the ESM, but the clinic did not receive money to attend it, not even for batteries. All the efforts made were useless. I decided to establish a non-profit civil association, comprised by all the teachers of optometry to sell eyeglasses and, with this money, equip the clinic. We found a space for the optical shop two blocks from the school and we hired one person. It worked well at the beginning; we had batteries and bought equipment, until the directives of the school manipulated some teachers of the school who began to doubt what we were doing. To make the story short, I resigned as head of optometry of the school. I was under a great deal of pressure. I thought I had done everything I could for the school, but I did not have the support that was needed and it would be good for another person to take over without those problems. That’s how I left the IPN after 18 years of teaching what had not been taught before in Mexico, helping to change the curriculum to four years, plus one year of social service and collaborating in the establishment of the clinic of optometry.

I did not want to know anything about schools, so now I listened to my father and opened an optical shop on Madero Street. My father heard about a premise that was being transferred, and I devoted my time to refurbish it. I had the help of a decorator and we installed three totally equipped examination rooms. The office on Nuevo Leon Street continued operating. At first, the optical shop was a good business; for example, on Saturdays, in the three consulting rooms, we saw one patient after another during the whole day. A day came when there was much competition in the area, and in many shopping centers there were optical shops; thus the number of patients dropped significantly. What happened to end the business of that shop was that Mr. Carlos Slim bought several buildings in the downtown historic center, and that was one of them. The rent went up a lot and I ended up transferring it. I do not regret it. Madero Street, in spite of being a pedestrian avenue has recently changed a great deal. After this closure, I opened a new optical shop with an independent office, and some of the people who worked for me continued working there. I also moved the office on Nuevo Leon to this new premise. This establishment continues working today.

When I left the IPN,I was invited to teach optics and eye refraction to the physicians who were studying the specialization in ophthalmology at the Conde de Valenciana Hospital. There, I met Doctors Enrique Graue Diaz Gonzalez, Federico Graue Wiechers and Enrique Graue Wiechers. They were always very nice to me; they sent patients with low vision to my office and who required special contact lenses, while I sent them patients with ocular pathology. For a time, I was in charge of adapting contact lenses in that hospital.

In 1992, a new school of optometry opened in the then Escuela Nacional de Estudios Profesionales (ENEP-I), now Facultad de Estudios Superiores, Fes Iztacala (FES-I), and Dr. Matos had much to do with this. He had an office and optical shop in Cuautitlan Izcalli, where Dr. Arlette Lopez Trujillo, the director of the ENEP-I arrived as a patient. When Dr. Matos found out, he proposed the creation of the school of optometry in this campus. He obtained information for her and gave her advice. The bachelor degree studies were established and, after a while, they invited me to be head of the optometry program, but, after my experience at the IPN, I did not accept. Then, I was invited to give classes; for two years, 1997-1998, I taught *Low Vision*. I left teaching because the premises were very far away from the optical shop on Madero, as well as from my office. At that time, I focused my attention to the office and the optical shop, and I stayed away from what was happening to optometry in Mexico.

Poor optometry, the professionals were not organized and the chains of optical shops did as they pleased with the profession. However, something occurred that spurred a change. As I mentioned before, I always attended the congresses of the American Academy of Optometry and in 2007, I took the two courses on leadership that Dr. Merton Flom had begun which had his name. As I also mentioned, Dr. Flom was my teacher at Berkeley; his class impressed me and, at some point, we became good friends. I remember that he came to Mexico City and I took him for a walk to the Saturday bazaar in San Angel. But I think I am getting away from the subject. I took the courses of leadership and, when I finished, I thought it was necessary to offer a course like that in Mexico.

Upon my return and together with Dr. Norma Hernandez, we began to organize a Forum on Leadership in Optometry, which took place in 2008. We invited leading people in optometry and schools of optometry from different States. It lasted an entire day at the Sevilla Palace Hotel on Reforma. I gave the courses of the Academy and prepared a summary of the status of optometry in Mexico. In the closing ceremony, we invited one of my previous students from the IPN to give a motivational talk, Dr. Luis Fernando Estrada Restrepo, who is a distinguished optometrist from Colombia and a good professional lecturer, besides being in love with Mexico because, when he studied here, he got to know our country well. On this occasion he said, “It is not possible that this should happen to optometry in Mexico; this country should be a leader of optometry in Latin America.” At the end of the event, no one made proposals; we didn’t know what to do. Then Dr. Estrada motivated us to form a group. After some work meetings, we organized it: it would be called “Optometry Mexico” and would be formed by certain optometrist representatives of the entire country.

The group Optometry Mexico began to meet once a month; most of the meetings were at the Camino Real Hotel of the airport; in the morning, the members of other States of the country began to arrive. The encounters lasted the whole day. On one occasion, Dr. Matos suggested that we organized a national congress of optometry. The first National Congress of Optometry was carried out in 2009 in Mexico City at the Fiesta Americana Hotel on Reforma. Dr. Norma Hernandez was in charge of all the organization. We brought national and international lecturers. We all thought that it was a success.

Other important actions arose from the group Optometry Mexico, such as the economic support to the Mexican Optometry Certification Council (Comaceo, by its abbreviation in Spanish) in order to register its bylaws before a Notary. In January, 2011, there was a meeting in Tijuana; some members of Optometry Mexico attended, as well as colleagues from that city. Among them, they decided to form an association that gathered schools, collegiate groups and councils of optometry so that it could be very strong. A Board of Directors was appointed and, from that moment, the group of Optometry Mexico handed it over to the newly formed Mexican Association of Faculties, Schools, Colleges and Councils of Optometry (AMFECCO, by its abbreviation in Spanish.)

In 2010, the school of optometry of the Autonomous University of Aguascalientes would organize the Second National Congress of Optometry; however, in January of that year, they realized that the room where they wanted to hold it was too small. The President of AMFECCO brought this up to me and, together with Dr. Hernandez, we organized it. A few days after, Dr. Hernandez took a plane and talked with the directives of the Marriott Hotel, which was about to be inaugurated. The congress took place and we thought that it was one of the most successful ones. The day of the inauguration, we had 500 chairs in an empty room; we had a stomachache, we did not know how many people would attend. Suddenly, everyone began to arrive and we had to put almost 200 additional chairs, it all looked full. It was a great satisfaction.

Second National Congress of Optometry in Aguascalientes, 2010.

Dr. Hernandez and I have organized several national congresses: three in Mexico City, one in Aguascalientes, another one in Leon, and we helped to organize the one of Puebla. It is not easy to organize this type of events; for example, the admission was restricted to licensed optometrists, students and interns but frequently there were people who did not comply with the requirement and they entered the event anyway. When we invited them to leave, they wanted to pay any price in order to participate in the event. In contrast, some licensed optometrists and sometimes even members of the directive of AMFECCO wanted to participate for free. There were also schools that conditioned their participation to obtain special discount prices. We had all kinds of experiences: there were congresses where the companies of the commercial areas or even some who were not even registered would organize their own conferences in the same hotel without our

authorization, and in this way, they could attract the attention of attendees to their event. Another time, they slipped their advertising into the registration packet, without authorization. In summary, we often got mad, especially because of persons or their companions who thought they were smarter.

We brought very good national and international lecturers; among the latter, I can mention Dr. Meng Ling of the University of California in Berkeley; doctors Jan Bergmanson, Adrian Glasser and William Miller of the University of Houston; Dr. Dennis Levi, former Dean of Berkeley; Dr. Pinakin Gunvant Davey, professor of the Southern College of Optometry; Dr. Kovin Naidoo, outstanding optometrist, leader of the World Council of Optometry (WCO); Dr. Marc Bloomenstein, professor of the Arizona College of Optometry; Dr. Stuart Richer, of the Ocular Nutrition Society, among others.

I also remember a congress in particular that was carried out in 2011 at the Polyforum of Leon, Guanajuato. It had a huge commercial area, the stands were impressive; we even hired cranes to put them up. In economic terms, it was not a success, but it was an impressive congress; it looked like the commercial exhibits in American congresses.

In addition, that year, the president of AMFECCO called me on the phone to say that there were no people interested in the presidency of the association and invited me to take the position. They say that man is the only animal that stumbles twice –or more– over the same stone. After thinking it over –or thinking ill– I accepted. I set up an office and I hired a full-time person to keep the files, maintain direct contact with the members, answer phone calls and be up to date on

the information about optometry and visual health that was published in newspapers and the internet. During this administration, we organized the congresses and the Forum on Optometry Legislation, where lawyers, ophthalmologists and, of course, optometrists participated. In the annexed, you will find some documents in that respect.

I don't know why –although maybe I should know– every time I join an association, I have problems. I know that not everyone can like me, but I always find persons or groups with whom I have disagreements. In AMFECCO, we began collaborating with the group of the Mexican Council of Functional Optometry (COMOF, by its abbreviation in Spanish); it was a very well organized group, with almost fanatic optometrists of functional optometry. This trend became fashionable in the USA in the seventies and eighties, and it did not progress much. In the congresses of optometry of the American Academy of Optometry and of the American Optometric Association there are no conferences on the subject. In fact, during the visits I have made to the schools of optometry of the universities of California at Berkeley and of Houston, even in the most recent ones, I have never known that classes on that subject are given; they even criticize it because it does not have any scientific basis. When I was the president of AMFECCO, the group of COMOF sent me an agreement, ready to be signed, in which they stipulated that in the congresses there should be a minimum of 20% of the talks and workshops devoted to the issue. Despite the pressures, I refused, and I suffered the consequences.

Opening of the Third National Congress of Optometry in Mexico City, 2011.

I also faced other problems. In 2011, the National Congress of Optometry was held at the Hilton Hotel on Juarez Avenue; in it, there was a group that was against my collaborators being present at the meetings of AMFECCO. I resigned to the position immediately, and I told them to look for another president. Finally, they contacted me and accepted the presence of my colleagues. Later, without any explanation, I was excluded from the Association in the National Congress of Optometry in Puebla and at a meeting where they appointed the voting members. From that date on, I have not participated with them, even though I have been invited several times.

I feel that I gave the best of me during my presidency of the AMFECCO and CODIFE associations, and it is time for them to reach the objectives they have set for themselves. During both administrations, we organized visits to public officials to present the multiple problems that our profession faced and which had a

repercussion in the visual health of the Mexican people. Most of them, if not all, didn't know what optometry was. One of them, a member of the governing board of the UNAM asked us, "Are you sure that it is studied at the UNAM? I know nothing about that profession." Others told us that no one dies from lack of eyeglasses.

We visited several Secretaries of health; they mentioned that they had been visited by Mr. Frank Devlyn and they knew him well. That, thanks to him, they obtained vaccines against poliomyelitis, which in reality was a philanthropic endeavor of the group of the Rotaries. One of those officials told us that he knew a lot of optometry, that he owned 350 optical shops and that he did not need licensed optometrists, because he had the little apparatus that measured the prescription and a lady to push the button was sufficient. I told Dr. Earl Smith of Houston, who carries out research on the vision of monkeys, about this incident. He responded that why should that Secretaries of health get paid a salary, and pay social security and taxes to a lady for pushing a button; that he should better train a monkey and he would only have to pay for his food. At this meeting with the Secretaries of health, the people present, among them, professors of the UNAM and of the IPN, were speechless. Although we explained that, if a complete exam of the eye was not made, the patients could become blind, the minister did not understand, or was unwilling to understand.

This meeting brought on problems because, a few weeks later, we had scheduled a press conference about visual problems in the population, and the speakers described what had happened. Only one journalist published it, and on the following day, the Secretary of health

called me; he was very upset. As a consequence, people close to him no longer talk to me and are very mad at me.

In addition to the Secretaries of health, we visited senators, congressmen, secretaries of the Health Council, among many others. Most of them listened to us, they would give us a pat on the back, and say, “We are going to study it; my assistant will call you.” They never called back and when we called them, they did not answer. But as a Mexican saying reads, “He who perseveres, succeeds.” Congressman Mario Alberto Davila Delgado, secretary of the Health Commission of the Chamber of Congress, gave us an appointment and we explained the situation all over again, as always, and we invited his assistants to the inauguration of the National Congress of Optometry at the Camino Real Hotel in Santa Fe, Mexico City, which was going to be held the following day. We were very surprised because one of his assistants appeared, and from then on, we have worked with another one of them, Jenny Moya Reveles, with whom we prepared a justification (that I attach in the annexed) to include the word “optometry” among the professions that require a degree to practice in Article 79 of the General Health Law. If you remember, it is the same law from which, in 1984 the word was deleted. We are talking about the fact that almost 30 years had passed since then.

Congressman Davila presented his proposal of law and the opposition began to be noticed. The Ministry of Health opposed it; in the annexed you can see a letter in which they issue their opinion on the subject of Article 79 and others. As leaving president of AMFECCO, I attended the meetings with the Board of Directors of the association. At one of these meetings that was carried out in a room of

the Sevilla Palace Hotel, I informed them of the progress it had in the Chamber of Congress and I mentioned that it would be a good idea to use the social networks to give support to the amendment of Article 79 of the General Health Law. From there, the movement “I am 20/20” arose, which AMFECCO knew very well how to promote and through which they pressured Congress, but specially the senators. The letters that the WCO sent were also of great help, first to the congressmen, and then to the senators. (See annexed.)

I was summoned to a meeting at the Chamber of Congress which would be attended by Congressman Isaias Cortes Berumen, President of the Health Commission; Congressman Mario Alberto Davila, Secretary of the Health Commission; the president of the Commission of Economy of Congress; Mr. Patrick Devlyn Jr. accompanied by Mr. Alejandro Cuevas, in representation of his company; a member of the Business Council and I. I was not allowed to be accompanied nor did they inform me the subject or who would attend. The meeting was held at eight PM; there were no cars in the parking lot and very few people remained in the building. We sat around a square table in one of the meeting rooms. The Congressmen took their place on one side, the representatives of Devlyn sat on the other and I sat alone in front of them. The President of the Health Commission explained that there was a proposal to change the General Health Law and gave the floor to Mr. Patrick Devlyn. His complaint was mainly that there were not sufficient licensed optometrists in the country and they were not enough for his optical shops. Then they gave me the floor; I argued that this was true but that there were neither sufficient airplane pilots or geriatricians in Mexico, and that because of that, we were not going to

improvise specialists; that the visual health of the population was what mattered, because the second disability in Mexico with more than one and a half million handicapped was the visual one; that we had to prevent blindness in our country. The President of the Health Commission said that the Commission agreed with me, and with that, the discussion was over.

At the end, Mr. Patrick Devlyn Jr. approached me to invite me to breakfast; I accepted, but this time, I did not go alone, Dr. Ivan Camacho accompanied me, so that there were no misunderstandings at the breakfast. It happened that what he wanted was for AMFECCO to speak with COFEPRIS (Comisión Federal para la protección contra Riesgos, in Spanish) to remove all the people giving out leaflets that advertise optical shops on Madero Street. I answered that what they should do is promote more universities to have optometry or promote that they had more students; this way, they could have all the licensed optometrists that they need. I invited them to visit the University of Houston to see how a school works in the USA. He told me that he would get back to me and I told him the same regarding the issue of people distributing leaflets. We were never in contact again. This occurred in 2013. If they were interested in hiring licensed optometrists, can you imagine how many students would already have a degree? And if they were that interested, in 1976, they already had complained and they never used their political and economic strength to fix the situation.

We didn’t know what the result of the voting in the Chamber of Congress would be, if the PRI and the PRD were going to support, what role the Ministry of Health would play, etcetera. There was much

expectation. On February 6, 2014, we went to the Chamber of Congress, in the general assembly room, which has a section for the public. Several congressmen took the floor.[1]Among us, we mentioned that they now knew how to say the word “optometry.” They all spoke in favor and mentioned the importance of this profession. We were elated, although very nervous. The time for voting arrived and it was unanimously approved with 392 votes. Congressman Davila was delighted; he approached us and took several pictures. Now the Chamber of Senators came next.

Congratulating Congressman Mario Alberto Davila Delgado, after voting, 2014.

[1] A summary of this session can be seen at the webpage https://m.youtube.com/user/optometriamexico/videos.

After voting, with Congressman Mario Alberto Delgado, Dr. Maria de Lourdes Meza Haro, Dr. Norma Hernandez Millan and Jenny Moya Reveles, 2014.

The president of the Health Commission was Senator Maki Esther Ortiz Dominguez, who had worked in the Ministry of Health, where, as sub-secretary, she issued a document that said that the people of CONOCER could be responsible for visual health. She was sick and did not give appointments for meetings of the Commission. However, the pressure of the movement “I am 20/20” in the social networks helped a lot, as well as the letters from the WCO. Congressman Davila and his assistant also helped us a great deal. Finally, we were summoned to the voting in the Chamber of Senators on February 12, 2015. Once again, we did not know if there was going to be opposition; we were nervous. The first to take the floor was Senator Maki Ortiz, who spoke very well of optometry, as was the case of several senators who also spoke very well of the optometric profession. The vote in

favor was unanimous with 82 votes. I remember well that tears came to my eyes. They told us that Senator Maki Ortiz wanted to see us; we went to a patio and she congratulated us and apologized. She argued that she knew nothing of what optometry was and that now she had learned. She asked us to please not send any more messages through the social networks, but to send them now to President Peña Nieto, because he had to sign the amendment to the law.

After voting in the Senate Chamber. Left to right: Dr. Maria de Lourdes Meza Haro, Dr. Norma Hernandez Millan and Senator Maki Esther Ortiz Dominguez, 2015.

President Enrique Peña Nieto signed the decree on March 17, 2015, which was published in the Official Gazette. This has been one the greatest satisfactions in my life, since I had fought for the recognition of optometry in my country. Let me tell you that this news was published in all the newspapers in Mexico and that it also travelled around the world. The WCO gave it much relevance in its website, as did the American Optometric Association and other organisms and associations in the entire globe. I have no idea if it was a coincidence – I would like to think so– but the week the law was published, COFEPRIS came to check my office, to see if everything was in order.

Fortunately, it was; in addition, the supervisor was a physician who graduated from the Superior School of Medicine of the IPN. We had many people in common that we knew, and he was very nice.

I have mentioned CONOCER several times; it is a program that was implemented in 2007. I would like to explain that it is an organism of the Ministry of Public Education. The National Council of Standardization and Certification of Labor Competencies has representatives of the workers, unions, entrepreneurs and the government. As its name says, it certifies labor competencies. In its website, it defines competency as a "set of capacities, skills, knowledge and attitudes that are present in the solution of problems or in the pertinent response to a new or specific situation." CONOCER certifies 1060 activities, the practice of the examination of refraction and adaptation of contact lenses, the sale of optical products and the beveling and mounting of ophthalmic prescription lenses, among others. The other activities are varied, some of them are: cleaning of industrial kitchens, preparation of food, application of Shiatsu massages, haircut services, application of artificial acrylic nails at a basic level, preparation of beverages and cocktails, locksmith services and many others. It makes me very angry because Optometry is included there and other activities that have to do with medicine, odontology and general health are not included.

The optical chains created the certifications of refraction and contact lenses so that the persons trained as "empirical optometrists" can practice. With the change in Article 79 of the General Health Law, which indicates that a degree is required in order to practice optometry, it intends to incorporate these persons as technicians, as stated in the

second paragraph (see annexed), and that the technicians in odontology or in medicine are also listed who, according to their category, practice as technicians and not as professionals. We have had several meetings with the directives of CONOCER and they have always given us a pat on the back and make no changes. Once, in order to explain why it is necessary to study a profession of four years in order to apply the “examinations of refraction” that they certify, I gave them the book by Borish, “Clinical Refraction.” Those who are familiar with the book know everything that it contains. They just stared at me. We informed them that the perspective of these persons making eye examinations is a hazard for the visual and general health, because they believe that the people who come to an exam are clients, not patients who might be there for blurry vision and that perhaps they do not need eyeglasses, but that their lack of vision could be caused by a disease that could leave them blind, or a tumor that could cause death. Even the senators and congressmen sent a document requesting the elimination of certifications, but they were also unsuccessful. (See annexed.)

One day, Dr. Matos called me and told me that he knew the new director of CONOCER, who had also been a directive of the IPN. Dr. Matos phoned him and he gave us an appointment. We discussed the problem and he agreed with us, that optometry should not be on the list of CONOCER, and that he was going to investigate. After this meeting, he would not take our calls or give us an appointment. There is someone with enough power to exert pressure on its continuity. Other presidents of AMFECCO have tried to get CONOCER to suspend these certifications, but also with no success. The worse thing is that

they continue extending it. On June 28, 2018, they created a new certification for optometry and optical products, which I included in the annexed. This standard of competency mentions that the person offers services in optometry for his/her “clients” and not only carries out optometry examinations, but “determines” the visual status of the “client.” It also mentions that he/she must have knowledge of diseases that affect vision, such as diabetes, hypertension, glaucoma, cataracts and keratoconus. Can you imagine a person who is not even required basic education doing all of this? Please read the standard of competency because it has so much information that would leave you cold.

Something similar occurs in the Conalep, since they have technical careers in the area of health, such a dental and prosthetic assistants, general nursing, community health, respiratory therapy and optometry. Technicians in optometry are taught how to carry out “refraction examinations”, “detect pathologies” and “adapt contact lenses”, in addition to their corresponding high school classes. The optical chains also intervened in the technical training in order to prepare the staff of their establishments. I have nothing against technicians in optometry; in fact, they play an important role in the USA, helping optometrists in the examination of patients. I am against having these technicians believe during their training that they are optometrists, however, they are not prepared to be optometrists. Frequently, I receive calls in my office asking for work as optometrists and, when I ask where they graduated, they respond that they were trained in Conalep. These young men and women are being misled.

Some of them have begun the studies of bachelor in optometry because they discover that they need to have more knowledge.

One day a few months ago, I was leaving the dentist's office when my secretary called to say that Mr. Frank Devlyn was in my office without an appointment; he wanted to talk to me. I went to see him and he brought some books he had written and to give them to me. I did the same, and gave him some of my books and wrote a dedication. We talked about CONOCER, about the Conalep and how many Mexicans were impaired due to an incomplete examination. I showed him the tonometer that should be used to see if the intraocular pressure was too high, which could be one of the symptoms of glaucoma. He wanted to take a picture with me, but I did not accept. I told him that I did not agree with what he was doing in the field of optometry in my country. He was very insistent and I did not accept. Before he left, he told me he was going to begin hiring more licensed optometrists. It is interesting to see how Mr. Frank Devlyn has appeared throughout my life.

THE PUBLICATION OF BOOKS, ANOTHER FIELD THAT OPTOMETRISTS MUST EXPLORE

Now that we are talking about satisfactions, I would like to narrate here the subject of the publication of four books. I have already spoken of the very few books in Spanish on optometry. This situation has changed little by little. The professors of the UNAM and the IPN have published several books. With respect to me, I also have made contributions.

Since I wrote my thesis in 1967 on sub-normal vision, nothing new had been published in Spanish on this subject. The term that is used nowadays is “low vision”; which refers to patients whose vision does not improve with eyeglasses or contact lenses, medication or surgery: They are not blind but their vision is not normal; in general it is the result of a macular degenerative disease, glaucoma, diabetic retinopathy, and irregular corneas, among many others. With this in mind, I started to write a book that would help the patients and their families as well as optometry students and optometrists. When I finished, I was unable to get an editor, so I published it myself in May, 2008. The size of the letters is large so that patients with low vision could read it. We organized a presentation in an empty room in a building next to my office: I invited family, friends and optometrists. The presentation was a success; we offered wine, sushi and pastry. The book has sold well; today, it is on sale in the Mercado Libre platform.

I later published “History of Optometry in Mexico” in March, 2009. Throughout my many years as an optometrist, I have also been interested in the history of optometry in my country. For this work, I

gathered relevant data, such as the first registry of the “eyeglass masters” during the Colonial days, the first works of art that represent people with eyeglasses, important anecdotes, etc. I presented this information in the book and my daughter helped me with the photographs. For example, I include a portrait of Viceroy Luis de Velasco, Jr., who was the first person with eyeglasses in the American Continent. This work of art is in the National History Museum in the Castle of Chapultepec. I had to request permission to reproduce it in its original size from the National Institute of Anthropology and History (INAH, by its abbreviation in Spanish.) I had several copies framed and gave them to schools and institutions of optometry in Mexico and abroad, to the FES Iztacala, the Inter-disciplinary Center of Health Sciences (CICS, by its abbreviation in Spanish) of the IPN in Santo Tomas, the University of California at Berkeley, the American Optometry Association, among others. There was a time when I traveled very much with these paintings under my arm. At the airports, the porters knew me as “the man with the paintings.” The presentation of the book, “History of Optometry in Mexico”, was much more exciting. At the National Palace, in the main square in Mexico City, at the Benito Juarez Museum, we found Benito Juarez eyeglasses. I took pictures and obtained their prescription. This museum has a conference room and we asked for permission for the presentation of the book. We got the permission; however, a few days before, there was a problem with an unauthorized conference, or something like that, and our event was almost canceled. Fortunately, we had the authorization and it was a very *ad hoc* presentation; we offered wine and hors d’oeuvres.

For many years, I have collected figures of optometrists. My wife brought back many from her trips, I have found many others in the internet, and several have been gifts. My collection probably has more than 200 figures. In 2018, my son took good photographs of each one of these figures and, with them, edited a book. The images are in full-page in a hard-cover edition. We published it to give to family and friends.

I was able to obtain a 1923 edition of the book, “Use of Eyeglasses and Comments about it”, by Dr. Manuel Marquez. It reproduces word for word the book, “Use of Eyeglasses for all Visions”, by Benito Daza de Valdes, which was originally published in 1623. I tried reading it, but it was very difficult; the Spanish language of the 17th century is very different from today’s Spanish. Benito Daza was an optometrist in 1623 and his is the first book on optometry in the world. In March, 2019, I published a facsimile edition, accompanied by a version in modern Spanish; the original reproduction appeared on the even number page, and the current version on the odd page. It is a delight and a pleasure to read this book for the information and the style of the author. We organized a presentation for family, friends and optometrists at the Hacienda de los Morales, a colonial *hacienda*.

Publishing books is a unique experience; it has allowed me to learn much about subjects I knew nothing about and visit places to work in libraries, churches, museums and universities, like when I wrote “History of Optometry in Mexico.” Besides, I met people who know a great deal about editing and publishing books; they helped me in this field.

I believe that publishing books offers knowledge to modern day and future optometrists.

MY RECENT ACTIVITY IN OPTOMETRY IN MEXICO

I have mentioned that I met Dr. Enrique Graue, with whom I established a very good friendship, as well as with his wife and family. In November 2016, Dr. Graue was appointed president of the UNAM, and we later met in the World Ophthalmology Congress in Guadalajara. I congratulated him and told him that I hoped he could help to develop more the school of optometry in the FES Iztacala. He gave me an appointment in one month and that I should call his secretary. The date was set for March 21, 2017. The day of my appointment, I arrived and I went to the University City; it was a holiday, with no activities, everything was closed. When we got to his office, he said, “Come, Abraham, I will give you a tour of my office.” Afterwards, we sat down to talk while we ate chocolate covered raisins, and he said, “What I want to do is open an optometry school in Leon, like the ones at Berkeley and Houston. I want you there.” I was speechless. What does one answer to an offer like that? After thanking him and telling him that I could not leave my family, I added that I would gladly help him. He answered, “You will be the leader of this project”. To make the story short, I left his office with an appointment in the ENES Leon, UNAM, for the following week. In Leon, I had a very pleasant reception; the director and his staff had already made a complete study of what optometry was, as well as a timetable of all the activities to be carried out in order to have the new school. By the way, the director was a nephew of an optometrist of the first graduating class of the IPN. He worked with him several times in the optical shop and, what’s more, two of his cousins, daughters of this optometrist,

were also optometrists from the IPN. One of them had a master's degree from an optometry school in Montreal, Canada.

We began the work; organized many meetings; professors from the FES Iztacala went to Leon; a curriculum was designed which was approved by all the committees involved. Incidentally, I went to all these meetings as an "expert" optometrist. The last meeting took place at the University City where the curriculum would be approved and the school would have the green light. However, a few people questioned the plan; for example, "What was the difference between an optometrist and an ophthalmologist?" And, the best question, "In what universities in the United States was optometry taught?" When I answered that it was taught in Berkeley, Houston, Ohio, among others, one of the members of the committee said, "Berkeley?" I explained that I obtained my doctorate degree in optometry there. All the people who were present started to mumble; at least, so I thought. It was immediately approved. Optometry in the ENES Leon, UNAM began on August 8, 2017.

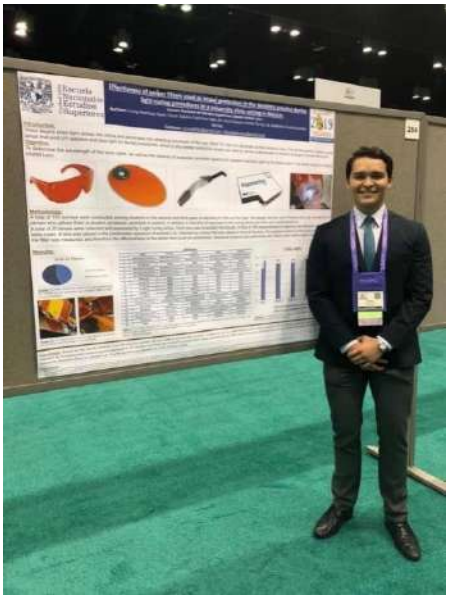
During the visit to the pre-clinic of Optometry, Enes Leon, UNAM, of Dr. Enrique Graue, President of the UNAM, 2018.

We received much support from the directives and the teachers there. Together with the architects, professors and directors of the ENES, we visited Berkeley and Houston many times, since they are the best schools in the USA; President Graue wants them as an example. The campus signed an exchange agreement with the University of Houston, and we have very good relations with them and with Berkeley. The pre-clinic was equipped with 18 examination rooms for the students to practice before seeing patients. We are in the process of constructing an optometry clinic on the campus, next to the clinics of odontology and physiotherapy.

It seems to me that the main difficulty in Leon is getting good professors. There are very few optometrists with master's and doctorate degrees; the few that are around do not want to go to Leon, others don't know how to teach, others consider themselves optometrists of the 20th century and not of the 21st century. It has not been easy.

Students and Faculty with Dr. Michael Twa, Dean of the College of Optometry of the University of Houston during his visit to ENES, UNAM Leon, 2020.

One of the activities that we seek in Leon is research. I believe that, with the Optics Research Center (CIO, by its abbreviation in Spanish), in Leon we have a unique opportunity. A student, now studying the third year of optometry at the ENES Leon presented a research poster at the congress of the American Academy of Optometry in November, 2019. This is the first time the UNAM exhibits something at the Academy. I was very proud; we are achieving things.



Research Poster Presented by student Irving Martinez Nave at the Congress of the American Academy of Optometry, 2019.

As I said before, the relations with the Ministry of Health were not good. I urge to read a letter in the annexed which made me very mad because we can see that the Ministry of Health does not know what the profession of optometry is, in spite of the meeting we had to explain this to them. Perhaps they did not want to listen or it was not

convenient for them to listen. For them, a licensed optometrist, an ophthalmologist and a technician are the same thing, since they can all prescribe eyeglasses or contact lenses. In addition, as the letter describes, for them, optometry is a “procedure.” In this letter, dated in March, 2013, points one and two have changed in favor of optometry, and we continue seeking to achieve points three and four.

This letter also addresses a ruling of the General Health Law that says the following:

> **ARTICLE 67.** In the optometric office only examinations to measure the refraction of the eye and adapt prosthesis, lenses and functional aids can be performed.

This article, published in the Official Gazette in 1986, limits the professional practice of the optometrist in an important way, since it means that the ophthalmoscope or the slit lamp, among other equipment, for example, cannot be used. Furthermore, some slit lamps were seized from some optometrist’s offices. As can be seen in this letter, the Ministry of Health did not want to add or remove anything from the law. Throughout all these years, I tried to negotiate a change, but to no avail. I have narrated all the encounters with congressmen, senators and officials from the Ministry of Health that only gave me a pat on the back and said they would get in touch. I approached congressman Davila but he could not help me because it concerned a regulation and only the Ministry of Health could modify it. Thanks to a recommendation of a friend, in April, 2017, the office of the Secretary

of Health, Dr. Jose Narro, called me to give me an appointment on Wednesday of Holy Week.

I arrived to the Ministry; everything was closed, but I thought about a similar situation that I experienced in the University City on March 21. The doors opened, there were no employees and we were taken to his office. Dr. Narro arrived. He told us that he knew much about the school and the FES Iztacala, UNAM. We talked about the directors who had passed through the school. I showed him the regulation I wanted to change. He read it and said, “This is wrong, modern optometry cannot be like this; perhaps it was okay in 1986 when this regulation was published, but not now.” He called the legal director on the telephone, but he was not in his office, he was on vacation. He told me he would call to give me an appointment. And the best words came later, “Is there anything else, Dr. Bromberg?” And, as my friend who recommended me to this meeting had told me before to only ask for the law change, I answered, “No, Dr. Narro, nothing else. Thank you very much.” Later, the legal director of the Ministry of Health asked me to come to his office and, after several meetings, the repeal of this article was drafted. This process lasted several months; bureaucracy is very slow. Finally, the repeal of this article was published in the Official Gazette. (See annexed.) There are still laws that need to be modified for the better attention of the visual health of the Mexican population. It is a never ending story.

People frequently ask me if there was something I would have requested from Dr. Narro if I had the chance. Below, I give you a list:

- Include the optometrist's office in the rulings of the Ministry of Health.
- Disappear the areas of refraction and contact lenses from CONOCER.
- Train the students of the Conalep as technicians and not as pseudo-optometrists.
- Request a prescription to buy contact lenses and eyeglasses with the signature of a licensed optometrist or an ophthalmologist.
- Include the licensed optometrists in the General Health Law as professionals who can issue a prescription for medications.
- Establish that only licensed optometrists can be the persons responsible in the optometry offices.

Anyway, this would be the list like that made by children to Santa Claus. Dreams do not cost anything.

There are several activities that I have not narrated because I thought they were of no importance; for example, I participated in many meetings, together with many institutions like the UNAM, the IPN and many more to elaborate the essential criteria to evaluate curriculum programs in schools of optometry that want to be certified to start a program and this was done at the in the Inter-institutional Commission for the Training of Healthcare Human Resources. As far as I know, I believe only one school in Morelia was approved and the commission has not met again.

Among the activities I did not mention, and that did have consequences, are the other fights with the Ministry of Health regarding Official Mexican Standard 005 which established how the

offices of health professionals must be. In the 2010 a Standard was signed by Dr. Maki Esther Ortiz Dominguez, who later became a senator, the offices of optometrists did not appear. We sent letters and had meetings with the committee in charge of elaborating the Standard where the president of AMFECCO also attended, Dr. Maria de Lourdes Meza Haro. We requested to be part of the commission that was to write the next norm, since it is revised every five years.

Let me tell you that we found out that the new Standard was published in the Official Gazette in January, 2017, open to comments about it, but when we learned about it, the deadline had elapsed. Even so, we held meetings with Dr. Sebastian Garcia Saiso and the assistance minister, Dr. Jose Meljem Moctezuma. They listened to us and, in the end, they did what they thought was pertinent, without the least notion of what optometry is. The Standard was published in the Official Gazette on July 9, 2020, which is summarized in the annexed. Imagine, they did not request equipment such as an ophthalmoscope and a retinoscope among the items in the office, they did not request a washbasin. However, we have gained some ground, at least optometry appears today, and equipment such as the tonometer and the slit lamp are requirements. I hope the next Standard improves and that institutions like the UMAN and IPN participate.

With the name of the group formed after the Leadership Forum, “Optometry Mexico”, I decided to establish the Consejo Optometria Mexico in 2015, we registered it as a non-profit civil association, in other words, a non-governmental organization (NGO.) As its name describes, we have not earned any money; quite the contrary. This may seem boring but, even if you don’t believe it, it took many hours of

work to write our Vision and our Mission. Our Vision is to lead a new era in the field of Optometry in the country that guarantees the highest quality in the professional practice and academic education in order to fulfill our responsibility in the field of national public health. Our Mission is: to care for the visual and general health of the Mexican population and promote Optometry, teaching and research in our professional exercise. We hired a public relations agency that sends articles to newspapers, television channels and radio stations, and also organize all the events. In addition, we have a group of spokespersons who are licensed optometrists who have given press conferences or interviews to the media. The topics are visual health, ocular diseases and, of course, dissemination of the task of the optometrist. We want to be able to respond, “I’m an optometrist”, when we are asked, “What do you do?” And people are not surprised and say, “What is that?” We are very active in social networks, in the website *optometriamexico.org*, as well as in Facebook and Twitter. I invite you know about everything we do.

This group has organized several courses of continuous education, among them, a Research Forum with these professionals: Aida Jimenez Corona, Fernando Molina, David Rivera de la Parra, Monica Bleiberg, Alicia Olivardia, Karla Inurreta Vazquez, Rodrigo Arizmendi and Liliana Perez Peralta. We have also organized a Symposium on Glaucoma with professors from Berkeley an Mexico, like doctors John Flanagan and Glen Ozawa, as Nancy Sol Espindola; a Symposium on Dry Eye, also with professors from Houston and Berkeley, like doctors Rachel Redfern, Julianne R. Knowles and Nancy McNamara, and a Symposium on the Control of Myopia, with doctors

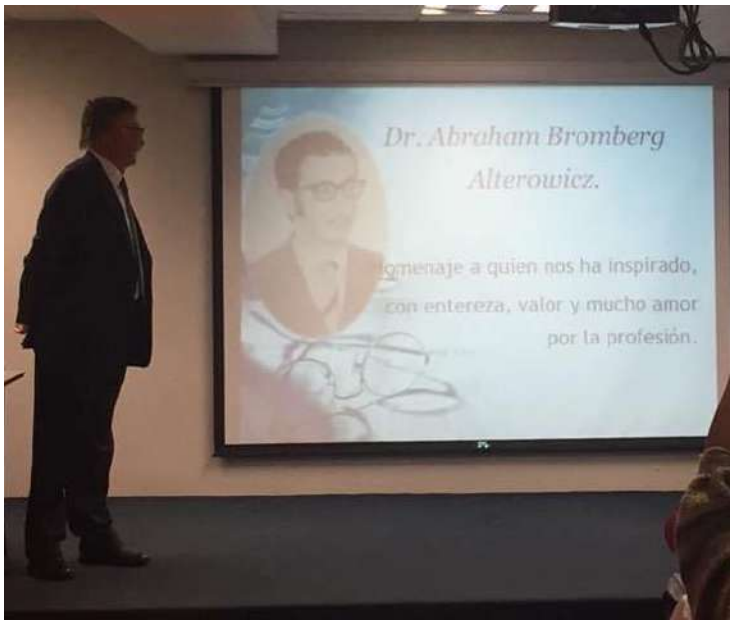
Earl Smith, Christine Wildsoet and Thomas Aller, also from Houston and Berkeley.

Myopia Control Symposium with the speakers from left to right: Dr. Christine Wildsoet, Dr. Thomas Aller and Dr. Earl Smith.

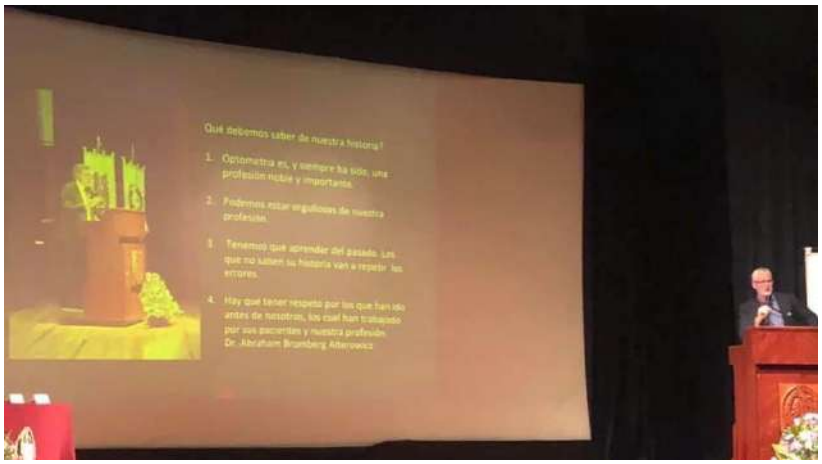
Two Command Groups were also organized. The idea behind this is to prepare groups of optometrist on the situation of optometry in Mexico, during intensive one-day courses, so that, they, in turn, begin to take action in favor of optometry in their State or in their region. I believe it has not worked as it should for several reasons. However, I still have faith that it will function better in the near future. People are talking about the Consejo Optometria Mexico and it has become a growing reference in our country and abroad.

Throughout the years, I have complained that the relation I had with some groups of optometrists, either independent, in associations, colleges or councils, has not been easy. Furthermore, there have been remarks (and I am not the only one to say) that the worse enemies of the optometrists are the optometrists themselves, that we don't work

towards a common objective for the good of the profession and, consequently, for the visual health of the people. However, on the other hand, I have received recognitions and acknowledgements that have moved me very profoundly and have left me speechless. These honors that I have received recognize, in some way, the progress that the profession has achieved throughout the years. I remember the homage that the College of Optometrists of the State of Mexico offered me in 2018, and the one that the group of former students of mine of the graduating class of 1980-1984 which took place in 2019. Both were very exciting with a presentation of slides of my professional life. The latter had the participation of Dr. Daniel Twelker, president of the international organization, VOSH (Volunteer Optometric Services to Humanity).



Homage of the College of Optometrists of the State of Mexico, 2018.



Homage of the graduating class of 1980-1984 of the IPN, 2019.

While writing these memoires, I found out that the American Academy of Optometry has awarded me the prize for Exceptional International Contribution to Optometry. I am deeply honored to receive this award, placing me with others who have received it previously and who are icons of world optometry, like Dr. Brian Holden and Dr. Kovin Naidoo. It is a recognition to Latin American optometry, since it is the first time a person receives this award from this region where this profession is progressing every day.

WHAT THE FUTURE HAS IN STORE FOR US

People frequently ask me about what I think we should do to improve our profession. Certainly, increase the number of continuous education courses. Graduate programs should be created with master's and doctorate degrees in the universities in order to promote research and teaching among the students of optometry. Consequently, optometrists from all the related areas should carry out research. The results if this research should be published in index-linked magazines and presented in courses and congresses of optometry and other fields so that different professions can see the level optometrists have reached. This is very important for our professional recognition.

There are optometrists throughout the country whose patients are politicians or state or federal government officials. We must speak to them about optometry, what it does and the problems it faces; in particular, about visual health in our country. (See annexed.) I have discovered that it is easier to approach state congressmen and state secretaries of health than to approach officers at the federal level in Mexico City. If some states approve laws regarding optometry, strength will be obtained in the entire country. This effort can be done individually or as a group. State colleges definitely have the strength that we have not made use of. Most of the strength is aimed at organizing congresses and courses of continuous education because they make money for the association, but largely neglect protecting optometrists in their professional practice; particularly and of greater relevance, the visual and general health of the population in our country.

Many optometrists always complain about how dangerous it is for visual and general health that optical chains hire staff that is not trained to perform visual examinations. They complain about CONOCER, Conalep, the empirical optometrists, the technicians and the optical shops that prescribe low quality products. But, what do they do to change this situation? Like John F. Kennedy said, “Don’t ask what the country can do for you. Ask what you can do for your country.” Ask yourself what you can do for your profession.

ANNEXES

1.

1976 Study Plan

1st Semester	2nd Semester
Optometría Social	Óptica Física con Laboratorio
Óptica Geométrica con Laboratorio	Microbiología y Bacteriología
Bioquímica	Bioestadística
Salud Pública	Óptica Oftálmica con Laboratorio II
Óptica Oftálmica con Laboratorio I	Psicología Aplicada
Morfología	Refracción Ocular
Matemáticas Aplicadas	Fisiología Humana

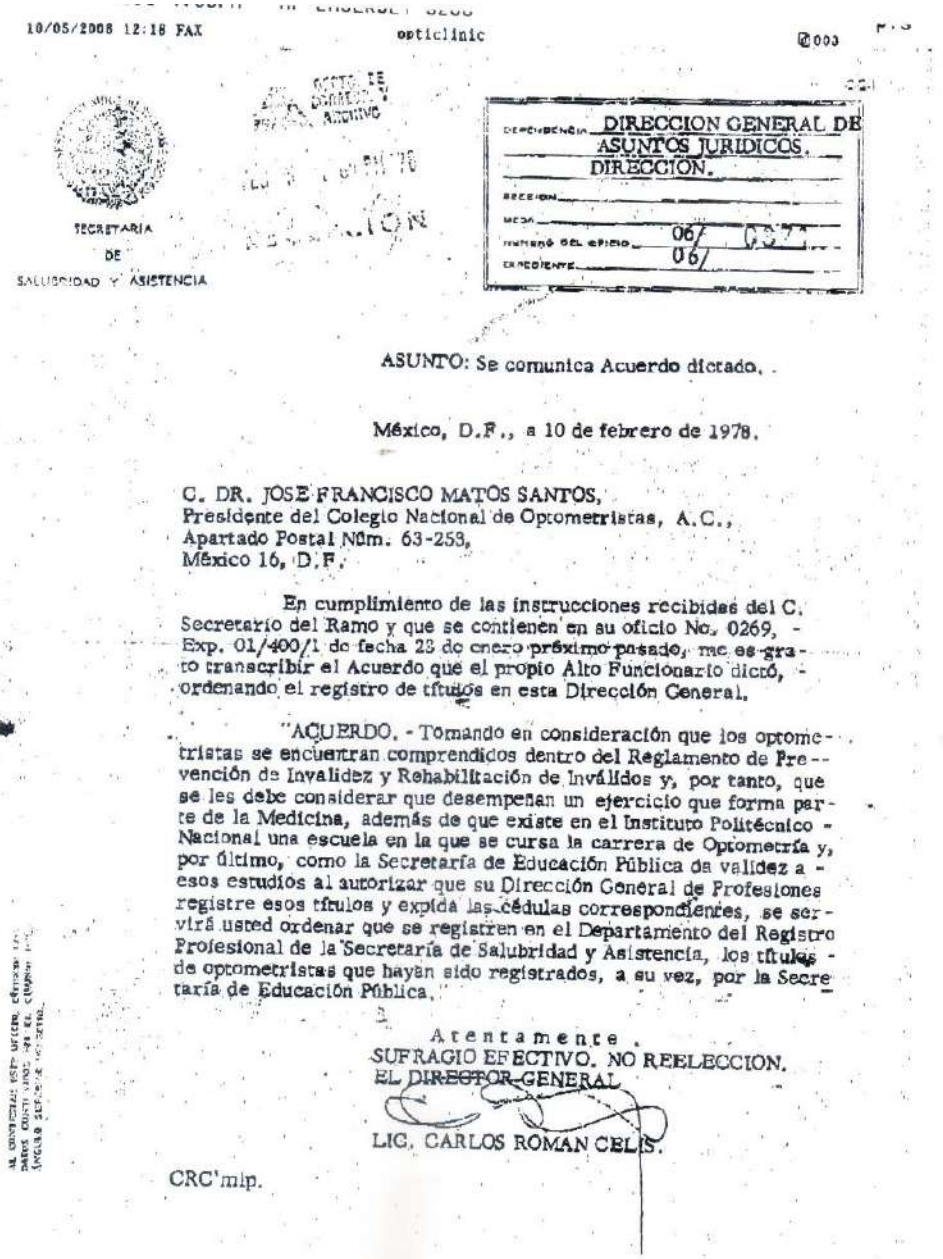
3rd. Semester	4th Semester
Preclínica	Visión Binocular
Anatomía Ocular con Laboratorio	Patología Ocular
Óptica Oftálmica con Laboratorio III	Farmacología
Fisiología y Bioquímica ocular con Laboratorio	Óptica Fisiológica con Laboratorio I
Óptica Instrumental con Laboratorio	Lentes de Contacto
Patología General con Laboratorio	

5th Semester	6th Semester
Anomalías de la Visión binocular	Clínica de Ortóptica I
Óptica Fisiológica con Laboratorio II	Rehabilitación Visual
Lentes de Contacto II	Patología Clínica II
Clínica de Refracción I	Clínica de Refracción II
Patología Clínica I	Clínica de Lentes de Contacto I
Urgencias Clínicas	Óptica Fisiológica con Laboratorio III

7th Semester	8th Semester
Clínica de Ortóptica II	Clínica de Ortóptica III
Clínica de Lentes de Contacto II	Clínica de Lentes de Contacto III
Clínica de Patología I	Clínica de Patología II
Clínica de Refracción III	Clínica de Refracción IV
Clínica de Visión Subnormal I	Clínica de Visión Subnormal II
Clínica de Pediatría y Geriatría I	Clínica de Pediatría y Geriatría II
Seminario de Introducción a la Investigación I	Seminario de Introducción a la Investigación II
Administración	Seminario de Avances Optométricos

2.

Registration of Optometry Degrees by the Ministry of Health



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SECRETARÍA DE SALUBRIDAD Y ASISTENCIA

DEPENDENCIA DIRECCION GENERAL DE ASUNTOS JURIDICOS. DIRECCIÓN.
SECCION
MESA
NUMERO DEL OFICIO 06/ 0269
EXPEDIENTE 06/

ASUNTO: Se comunica Acuerdo dictado.

México, D.F., a 10 de febrero de 1978.

C. DR. JOSE FRANCISCO MATOS SANTOS,
Presidente del Colegio Nacional de Optometristas, A.C.,
Apartado Postal Núm. 63-253,
México 16, D.F.

En cumplimiento de las instrucciones recibidas del C. Secretario del Ramo y que se contienen en su oficio No. 0269, - Exp. 01/400/1 de fecha 23 de enero próximo pasado, me es grato transcribir el Acuerdo que el propio Alto Funcionario dictó, - ordenando el registro de títulos en esta Dirección General.

"ACUERDO. - Tomando en consideración que los optometristas se encuentran comprendidos dentro del Reglamento de Prevención de Invalidez y Rehabilitación de Inválidos y, por tanto, que se les debe considerar que desempeñan un ejercicio que forma parte de la Medicina, además de que existe en el Instituto Politécnico - Nacional una escuela en la que se cursa la carrera de Optometría y, por último, como la Secretaría de Educación Pública da validez a - esos estudios al autorizar que su Dirección General de Profesiones registre esos títulos y expida las cédulas correspondientes, se servirá usted ordenar que se registren en el Departamento del Registro Profesional de la Secretaría de Salubridad y Asistencia, los títulos - de optometristas que hayan sido registrados, a su vez, por la Secretaría de Educación Pública."

Atentamente.
SUFRAGIO EFECTIVO. NO REELECCION.
EL DIRECTOR GENERAL

LIC. CARLOS ROMAN CELIS.

CRC'mlp.

3.

Letter of the Ministry of Health Giving an Opinion on Article 79

SECRETARIA
DE
SALUBRIDAD Y ASISTENCIA

DIRECCION GENERAL DE
ASUNTOS JURIDICOS.

OF. NUM. 102-DG-1976

México, D.F., a 12 de julio de 1984.

C. LIC. CLEMENTE VALDES
REPRESENTANTE LEGAL DEL COLEGIO NACIONAL
DE OPTOMETRISTAS, A.C. Y DE LA ASOCIACION
NACIONAL DE OPTOMETRISTAS EGRESADOS DEL
INSTITUTO POLITECNICO NACIONAL.
P R E S E N T E.

Por instrucciones del Sr. Lic. José Francisco Ruíz Massieu, Subsecretario de Planeación, y en relación al escrito que - con fecha 11 de junio del año en curso le presentó usted al mencionado Subsecretario, en el sentido de que la Ley General de Salud había omitido la regulación de los optometrístas, me permito expresarle la interpretación jurídica que,- a nuestro juicio, procede, respecto de dicho asunto.

De acuerdo con los Artículos 1o., 2o. y 3o. de la Ley Reglamentaria del Artículo 5o. Constitucional relativo al ejercicio de las profesiones en el Distrito Federal, toda persona que haya acreditado estudios profesionales tiene derecho a- registrar su título profesional y obtener, en consecuencia, la cédula correspondiente para efectos de ejercicio profe-- sional. Desde luego, en este caso quedan comprendidos los - optometrístas que han obtenido, de las instituciones legalmente autorizadas, su título profesional.

La anterior interpretación coincide con la que sobre el particular ha dado la Dirección General de Profesiones de la - Secretaría de Educación Pública, la que nos ha informado -- que hasta la fecha viene registrando los títulos profesionales de los optometrístas.

Por lo que hace a la Ley General de Salud, publicada en el- Diario Oficial de la Federación el 7 de febrero de 1984 y - en vigor a partir del 1o. de julio del mismo año, en su Artículo 79, primer párrafo, se dispone:

> "Para el ejercicio de actividades profesionales en el campo de la medicina, odontología, veterinaria, biología, bacteriología, enfermería, trabajo social, química, psicología, ingeniería sanitaria, nutrición, dietología, patología y sus ramas, y las demás que establezcan otras dispo-
>
> ....."

SECRETARIA
DE
SALUBRIDAD Y ASISTENCIA

DIRECCION GENERAL DE
ASUNTOS JURIDICOS.

OF. NUM. 102-DG-1976

siciones legales aplicables, se requiere que los títulos profesionales o certificados de especialización hayan sido legalmente expedidos y registrados por las autoridades educativas competentes..."

Como se desprende de la lectura de la citada disposición, si bien es cierto que no se menciona expresamente a la optometría, también lo es que de la interpretación de esta disposición se puede concluir que, al referirse a las "ramas" de las actividades profesionales en el campo de la medicina, quedaría incluída la optometría y demás actividades profesionales que se hayan cursado conforme a las disposiciones legales correspondientes. En esta virtud, se puede concluír que la mencionada disposición profesional es una rama de la medicina y, consecuentemente, queda comprendida en el citado Artículo 79.

A T E N T A M E N T E.
SUFRAGIO EFECTIVO. NO REELECCION.
EL DIRECTOR GENERAL.

LIC. SALOMON DIAZ ALFARO.

c.c.p. C. Dr. Guillermo Soberón Acevedo, Secretario del Ramo. P r e s e n t e.
c.c.p. C. Lic. José Francisco Ruíz Massieu, Subsecretario de Planeación.- P r e s e n t e.
c.c.p. C. Dra. Carolina Aros, Carrera de Optometría de la Escuela Superior de Medicina del I.P.N.- En relación a su escrito dirigido al Sr. Secretario del Ramo el 5 de julio.

4.

CODIFE Diploma and Pin

El

COLEGIO DE OPTOMETRISTAS DEL DISTRITO FEDERAL

Otorga el presente certificado de:

Miembro Fundador

A

XX XXXXX XXXX XXXXXXX

México D.F. Julio de 2010

DR. ABRAHAM BROMBERG ALTEROWICZ.
Presidente

DR. JOSÉ FRANCISCO MATOS SANTOS
Vicepresidente

5.
Legislation Forum

Declaration in Mexico City

En la Ciudad de México, Distrito Federal siendo las 16:00 horas del día 21 de mayo de 2011, reunidos los abajo inscritos en el primer foro nacional de legislación en optometría y una vez analizado el contexto general de la situación jurídica de la atención de la salud visual, se ha llegado a los siguientes consensos:

1. El licenciado en Optometría es un profesional facultado para intervenir en términos de la LexArtis Ad Hoc en la atención primaria de la salud visual a efecto de participar en la prevención de problemas de salud visual, el diagnóstico, el tratamiento y la rehabilitación de los pacientes que soliciten el concurso. Este facultamiento se obtiene en razón de tres elementos básicos: la expedición de título profesional por la institución facultada legalmente; por la expedición de la cédula profesional a cargo de las autoridades competentes y el entrenamiento correspondiente, con arreglo a los planes y programas de estudio de las instituciones formativas.
2. En razón de lo anterior es imprescindible obtener la plena reglamentación de su ejercicio en la ley general de salud; en los reglamentos sanitarios y merced a la emisión de una Norma Oficial Mexicana Específica.
3. A dicho propósito es imprescindible avanzar en el estudio de la LexArtis Ad Hoc, a fin de resolver los dilemas de su ejercicio; particularmente y sin espíritu limitativo, en sus relaciones e interacciones con otras áreas, disciplinas y especialidades.
4. Uno de los puntos esenciales del trabajo conjunto es erradicar el intrusismo y los fraudes a la salud en esta disciplina.
5. Bajo el tenor expuesto, a partir de la fecha se integra un grupo de consenso cuya función será la de avanzar en los estudios inherentes a la consolidación del régimen normativo necesario, a fin de garantizar las buenas prácticas

optométricas, en beneficio de la población mexicana y obtener una reforma juridicial sistemática e íntegra a corto plazo.

6. A dicho propósito se invitará a las instituciones relacionadas con el ejercicio de la optometría y en especial a la Academia Mexicana de Cirugía, la Academia Nacional de Medicina, la Sociedad Mexicana de Oftalmología y el Consejo Mexicano de Oftalmología, la Universidad Nacional Autónoma de México, el Instituto Politécnico Nacional y en general a las instituciones educativas del país, para obtener el consenso necesario.
7. De igual suerte, se agradece la participación de las instituciones que el día de hoy mostraron su apoyo: Secretaría de Salud, Academia Mexicana de Cirugía, la Sociedad Mexicana de Oftalmología y el Consejo Mexicano de Oftalmología.
8. En razón de lo anterior quedan convocadas las instituciones y personas relacionadas con nuestra disciplina para el objeto de obtener su colaboración y aportaciones en el proyecto que hoy inicia.
9. Los principios que inspiran estos trabajos son los de buena fe; razonable seguridad a los pacientes; justicia y ejercicio ético de la profesión. A dicho propósito se inician, igualmente, los trabajos para la consolidación de un código de ética uniforme a nivel nacional.
10. Una vez concluidos los trabajos correspondientes se harán las propuestas conducentes a las autoridades del país.

Francisco Pérez Robles Presidente de Col. de Coahuila
José Iván Camacho Arellano 2do Sec.propietario de CODIFE
María Celinda Monroy Mendiola Presidente de Colegio de Hidalgo
María Concepción González Del Rosario COMACEO
Xóchitl de Jesús Salazar Hernández AMFECCO
Fredy Nacif López Presidente de Colegio de Opt. de Nuevo León
Marcelo Hernández Ramos Representante de Colegio de Tlaxcala
José Luís Chessal Rivero COMOF
Alfonso Hernández Loera Presidente del Colegio de Opt.del estado de Chihuahua

José Juan Romo Gutiérrez Presidente del Colegio de Optometristas de Yucatán

Rebeca Carrillo Calderón Representante del Col. de Opt. del Estado de Aguascalientes

Fernando Angel Jiménez García Representante del estado de Guerrero

Julio Andrés Castro Muñoz Presidente del Colegio de Licenciados en Opt.de Zacatecas

Juan Antonio Pineda Morán Representante del Col. de Opt.de Tamaulipas

Cecilia Escobar Gómez Secretaria del Col. de Opt.de Oaxaca A.C.

Jaime de Loera Cervantes Presidente del CONACEPRO

Manuel Leonardo Martínez Tapia Presidente del Colegio de Opt.del Estado de Sonora

José Francisco Matos Santos Vicepresidente de CODIFE y Tesorero de AMFECCO

Luis Alberto Silva Jiménez Director ejecutivo AMFECCO

Juan Bernardo Leñero García Primer secretario Prop.de CODIFE

Cecilia LouiseDennie Haro Operador político AMFECCO

Abraham BrombergAlterowicz Presidente de AMFECCO

Jorge Luis Flores Avilés Representante del Estado de Baja California

Stewar Saucedo Salcedo Presidente del Colegio de Opt.tituladosdel Estado de San Luis Potosí

Ricardo Flores Moreno presidente del colegio del Estado de México

Alejandro Ramírez RamírezPresidente del colegio de Licenciados en Optometría deTamaulipas A.C.

Dante Alilleri Galicia Domínguez Presidente del Colegio Veracruzano de Optometristas A.C.

Juan Carlos López Méndez Vicepresidente del Col. de optometristas

JoséTarango Mendoza Presidente del Colegio de Optometristas Titulados del Estado de Chiapas, A.C.

Felipe de Jesús Verdín Altamirano Presidente del Colegio de Licenciados en Optometría del Estado de Michoacán, A.C.

6.

Justification for Including Optometry in Article 79

29-04-2013
Cámara de Diputados.
INICIATIVA con proyecto de Decreto que reforma el artículo 79 de la Ley General de Salud.
Presentada por el Dip. Mario Alberto Dávila Delgado (PAN)
Se turnó a la Comisión de Salud.
Diario de los Debates, 29 de abril de 2013.

INICIATIVA CON PROYECTO DE DECRETO QUE REFORMA EL ARTÍCULO 79 DE LA LEY GENERAL DE SALUD

El suscrito, Mario Alberto Dávila Delgado, diputado federal del Grupo Parlamentario del Partido Acción Nacional e integrante de la LXII Legislatura, con fundamento en las fracciones II del artículo 71 y III del artículo 78 de la Constitución Política de los Estados Unidos Mexicanos, así como en los artículos 6, numeral 1, 77 y 78 del Reglamento de la Cámara, somete a consideración de esta asamblea la presente iniciativa por la que se reforma el artículo 79 de la Ley General de Salud, al tenor de la siguiente

Exposición de Motivos

La Constitución Política de los Estados Unidos Mexicanos establece en el artículo 4o. que toda persona tiene derecho a la protección de la salud.

Optometría es una profesión independiente, encargada del cuidado de la salud visual que requiere educación superior y regulación laboral (licencia y/o registro).

"Los optometristas son los profesionales encargados del cuidado primario del ojo y del sistema visual", de acuerdo a la definición del Consejo Mundial en Optometría.

La optometría en México tiene sus inicios en 1950 en la Escuela Rural de Medicina del Instituto Politécnico Nacional. En 1984 se inician las sesiones de trabajo para el diseño del plan de estudios de la licenciatura de optometría en la Universidad Nacional Autónoma de México. En 1986 este plan de estudios fue aprobado por el H. Consejo Universitario y en octubre de 1992 se iniciaron las clases de la licenciatura de optometría en la entonces Escuela Nacional de Estudios Profesionales Iztacala, con un plan de estudios modular que pretendía formar licenciados en optometría que dieran respuesta a las demandas de la salud visual en México.

Es preocupante que la situación del ejercicio de la optometría en nuestro país por personal con poca o sin preparación pone en peligro la salud visual y general de la población en México.

Aunado a esto, el Consejo Nacional de Normalización y Certificación de Competencias Laborales esta certificando la competencia de Optometrista a personas sin estudios. Optometría es la única profesión del área de la salud en la que esto ocurre, a diferencia de lo que se realiza en México con médicos, dentistas, veterinarios etc.

Los licenciados en optometría ven con angustia cómo pacientes pierden la visión porque personas sin preparación o preparadas al vapor que no son capaces de diagnosticar enfermedades oculares o generales como el glaucoma, tumores, diabetes, cataratas, degeneraciones maculares, hipertensiones arteriales, entre otras afectando la salud de muchos pacientes.

En México existen hasta el dia de hoy 15 Universidades que imparten la licenciatura en optometría.

De acuerdo con la Dirección General de Profesiones de la Secretaria de Educación Pública, existen actualmente 4000 licenciados en optometría en México, más que en cualquier otra época, así mismo contamos con 1500 estudiantes de licenciatura en optometría, de los cuales 400 se egresan cada año. Entre las Instituciones Educativas que imparten la licenciatura de optometría son la Universidad Autónoma de México, Instituto Politécnico Nacional y la Universidad Autónoma de Aguascalientes entre otras.

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La Organización Mundial de la Salud estipula que debe haber un optometrista por cada 10,000 habitantes, por lo que se requieren 7,500 Licenciados en optometría en nuestro país.

Los optometristas son profesionales del cuidado primario de la salud del ojo y del sistema visual, que proporcionan un cuidado integral, que incluye la refracción, dispensación, detección/diagnóstico, tratamiento y la rehabilitación dentro de su competencia.

Comúnmente, la optometría se centra en la medida del estado refractivo de ambos ojos, mediante procedimientos como la esquiascopia o retinoscopia y, sobre todo, a través de métodos de refracción ocular. De esta forma se detectan, compensan y corrigen numerosas anomalías visuales como la miopía, hipermetropía, astigmatismo, queratocono o estrabismo, entre otras.

Sin embargo, la optometría también comprende la detección de manifestaciones sistémicas, enfermedades y trastornos relacionadas con el sistema visual, así como aplicación clínica y la derivación hacia un oftalmólogo. Además, analiza e investiga toda la estructura ocular en sí, mediante técnicas de queratometría, biomicroscopia, paquimetría, la integridad de las superficies oculares con tinciones, presión intraocular con métodos invasivos y no invasivos, evaluación del nervio óptico y estructuras internas con oftalmoscopio directo o indirecto.

En los últimos años la optometría en México está evolucionando, siguiendo un proceso de maduración, y gracias al interés de algunos emprendedores, han estado sucediendo cambios que favorecen de alguna manera a esta noble profesión. A últimas fechas los licenciados en optometría han generado movimientos que están impulsando poco a poco a la profesión para ubicarse en el lugar que le corresponde. Y para ejemplos podemos mencionar.

El Consejo Mexicano de Optometría Funcional, se ha consolidado como la asociación más estable y de máximo crecimiento en la optometría, a través de la realización de 13 congresos nacionales y regionales de forma ininterrumpida en los últimos años.

En 2008 se llevo a cabo la primer reunión preliminar llamado proyecto optometría en México, en donde se buscó el reconocimiento del nivel de la licenciatura en optometría.

En marzo del presente año, durante el V Congreso Nacional de Optometría, el doctor Kovin S. Naidoo, líder en salud pública, investigador y profesor de optometría, señaló que el acudir con este tipo de especialistas de la salud visual puede evitar que las personas desarrollen ceguera prematura.

El especialista afirmó que el optometrista es capaz de detectar enfermedades oculares como el glaucoma, retinopatía diabética, hipertensión, cataratas y otras enfermedades que producen ceguera, pero en estos casos debe remitir al paciente al oftalmólogo, porque es el único que puede medicar u operar mientras que cuando se trata de problemas de refracción como la miopía, el astigmatismo, o la hipermetropía, el optometrista es el responsable de recetar los anteojos o lentes de contacto adecuados para cada paciente.

En México hay 60 millones de personas que necesitan lentes o gafas, pero solo 15 millones las utilizan, y se desconoce si lo hacen correctamente.

De acuerdo con el INEGI Más del 50% de la población en México tiene problemas visuales, muchos de los cuales pueden causar ceguera. Entre las discapacidades la salud visual es la segunda causa. La Organización Mundial de la Salud, indica que 153 millones de personas en el mundo tienen discapacidad visual por errores refractivos como miopía, astigmatismo y/o hipermetropía, que en la mayoría de los casos podrían corregirse su visión con anteojos.

Estos datos, indican que faltan 50 mil optometristas en el país, que cubran las áreas de necesidad de las personas.

La OMS a afirma que la primera causa de ceguera en el mundo son las enfermedades crónicas y degenerativas, y la segunda causa son los problemas de la refracción", y por lo tanto al tanto tener un diagnóstico oportuno, se evita que la ceguera avance rápidamente.

Para el desarrollo del Sistema Nacional de Salud, es necesaria la generación de mejores condiciones para ofrecer servicios de salud con calidad, es indispensable la profesionalización del personal de salud en todas sus ramas.

Por ello, se requiere la regulación de los profesionales de la salud que proporcionan servicios en optometría. Esto será bien recibido, ya que cada vez es más la necesidad de los pacientes y a su vez se requiere de más profesionales de esta área de la salud. Beneficiando con ellos a millones de mexicanos.

Con la presente iniciativa se busca mejorar las condiciones del ejercicio de la optometría en nuestro país y la salud visual de los mexicanos.

En atención a lo anteriormente expuesto, el suscrito Diputado Mario Alberto Dávila Delgado del Grupo Parlamentario del Partido Acción Nacional someto a consideración de esta Honorable Cámara de Diputados la siguiente iniciativa con proyecto de

Decreto por el que se reforma el artículo 79 de la Ley General de Salud

Único: Se reforma el artículo 79 de la Ley General de Salud, para quedar como sigue:

Artículo 79. Para el ejercicio de actividades profesionales en el campo de la medicina, odontología, veterinaria, biología, bacteriología, enfermería, trabajo social, química, psicología, **optometría**, ingeniería sanitaria, nutrición, dietología, patología y sus ramas, y las demás que establezcan otras disposiciones legales aplicables, se requiere que los títulos profesionales o certificados de especialización hayan sido legalmente expedidos y registrados por las autoridades educativas competentes.

...

Transitorio

Único. El presente decreto entrará en vigor el día siguiente al de su publicación en el Diario Oficial de la Federación.

Palacio Legislativo de San Lázaro, Cámara de Diputados, a 10 de abril de 2013.— Diputado Mario Alberto Dávila Delgado (rubrica).»

Se turna a la Comisión de Salud, para dictamen.

7.

Letter of the Ministry of Health Giving an Opinion on Optometry

SALUD
SECRETARÍA DE SALUD

Subsecretaría de Integración y Desarrollo del Sector Salud
Dirección General de Calidad y Educación en Salud
Dirección de Procesos Normativos en Salud
Subdirección Normativa en Servicios de Salud

Oficio No. 00462

México, D.F., a 11 MAR 2013

Asunto: Se atiende escrito, se da respuesta a peticiones y se comunica disposición para concertar fecha de audiencia solicitada.

DR. ABRAHAM BROMBERG ALTEROWICZ
PRESIDENTE DE LA ASOCIACIÓN MEXICANA
DE FACULTADES, ESCUELAS, COLEGIOS Y
CONSEJOS DE OPTOMETRÍA.
Av. Paseo de las Palmas 275-E, Mezzanine,
Col. Lomas de Chapultepec,
Deleg. Miguel Hidalgo
11000, México, D. F.

Me refiero a su escrito de fecha 13 de febrero de 2013, dirigido a la C. Secretaria de Salud, mediante el cual describe la situación que priva en torno de los Licenciados en Optometría y formula diversas solicitudes relacionadas con la práctica de esta disciplina.

Al respecto, me permito hacer de su conocimiento que la Titular del Ramo, turnó su escrito al C. Subsecretario de Integración y Desarrollo del Sector Salud, quien instruyó a la Dirección General de Calidad y Educación en Salud, para integrar un grupo técnico multidisciplinario de expertos en materia de regulación de servicios de salud, para revisar y analizar con todo detalle la viabilidad de las solicitudes que manifiesta en su escrito; dicho grupo formuló comentarios generales para cada una de las propuestas, así como las conclusiones derivadas del análisis correspondiente, mismas que se expresan a continuación:

COMENTARIOS GENERALES PARA CADA UNA DE LAS PROPUESTAS.

1.- Se incluya a la optometría en el artículo 79 de la Ley General de Salud.

La optometría es una actividad que no está explícita en la Ley General de Salud, sin embargo, es parte de los servicios de salud, en particular de la atención médica, de conformidad con el artículo 24 fracción I de la misma Ley. Por lo tanto, la optometría es un procedimiento con fines diagnósticos y en su caso, prescriptivos para algún problema de refracción, que debe ser realizado exclusivamente en establecimientos de atención médica, por personal profesional que puede ser médico especialista en oftalmología, licenciado en optometría o por personal técnico en sus respectivos ámbitos de formación académica y responsabilidad profesional, de conformidad con los artículos 78 y 79 de la mencionada Ley; dicho personal deberá contar con título profesional, en su caso, certificado de especialización o diploma para el personal técnico según corresponda, legalmente expedidos

Homero No. 213, piso 12, Col. Chapultepec Morales, C.P. 11570, Delegación Miguel Hidalgo, México, D.F.,
Tel.: (55) 200 3400 www.calidad.salud.gob.mx

y registrados por las autoridades educativas competentes.

2.- Se derogue el artículo 67 del reglamento de la Ley General de Salud en materia de prestación de servicios de atención médica.

El Reglamento de la Ley General de Salud en Materia de Prestación de Servicios de Atención Médica, **establece en el artículo 67, que en los consultorios de optometría, únicamente se podrán efectuar exámenes para medir la refracción del ojo y adaptaciones de prótesis, lentes y ayudas funcionales**; actividades que de acuerdo con su formación académica, pueden ser desarrolladas por el médico, el licenciado en optometría o por personal técnico; es decir, el mencionado artículo describe y regula con toda claridad las actividades que deben ser realizadas en establecimientos de atención médica denominados genéricamente consultorios de optometría, por parte del personal profesional o técnico del área de la salud facultado para ello. Derogar el artículo 67 del Reglamento referido, implicaría generar un vacío jurídico que seguramente propiciaría anarquía en el funcionamiento de estos establecimientos y falta de certidumbre jurídica para el prestador de servicios de optometría, pero sobre todo, para los pacientes y usuarios de estos servicios.

3.- Se establezca la exigencia de receta para anteojos y lentes de contacto firmados por Licenciados en Optometría o médico Oftalmólogo con cédula profesional.

Los exámenes para medir la refracción del ojo, las adaptaciones de prótesis, lentes y ayudas funcionales, tienen como finalidad realizar diversos estudios y valoraciones para integrar un diagnóstico conlleva en muchos casos, la formulación de una prescripción por parte del personal facultado para ello, en una receta que cumpla con los requisitos exigidos por el marco jurídico-sanitario vigente, sea que se trate del médico, licenciado en optometría o técnico. En este caso concreto de la propuesta, la receta para proceder a la elaboración de anteojos y lentes de contacto, debe ser exigida por el personal del establecimiento o taller responsable de elaborar dichos anteojos o lentes de contacto con la graduación prescrita y características indicadas en la receta formalmente expedida. De no ser así, se deberá rechazar toda solicitud informal de elaboración de anteojos o lentes de contacto, que no estén prescritas y amparadas por una receta expedida por personal profesional o técnico del área de la salud facultado para ello.

4.- Se establezcan normas para el funcionamiento de las ópticas y los consultorios de optometría.

Las ópticas donde únicamente se comercializan anteojos, no son establecimientos de atención médica, por lo que no son sujetos de cumplir los requisitos de un consultorio, pero

tampoco pueden funcionar como tal, ya que se trata de establecimientos mercantiles y por lo tanto, sus actividades son ajenas al ámbito de la salud. En el caso de coexistir consultorio y óptica, la parte o área que corresponda al consultorio deberá ser notificada por separado a la autoridad sanitaria, a través de los avisos de responsable sanitario y de funcionamiento correspondientes, así como cumplir con la normatividad aplicable en el ámbito de la atención médica.

La práctica de exámenes de refracción, es una actividad exclusiva del personal profesional y técnico del área de la salud, que académicamente ha sido formado de manera específica, para proporcionar estos servicios en establecimientos de atención médica a pacientes y usuarios ambulatorios, por tales razones, su regulación está determinada por la Ley General de Salud y el Reglamento en Materia de Prestación de Servicios de Atención Médica, así como por las Normas Oficiales Mexicanas que resulten aplicables, cuyo cumplimiento es obligatorio, como es el caso de las normas siguientes:

1. Norma Oficial Mexicana NOM-004-SSA3-2012, Del expediente clínico. Publicada en el DOF el 15/10/2012.

2. Norma Oficial Mexicana NOM-005-SSA3-2010, Que establece los requisitos mínimos de infraestructura y equipamiento de establecimientos para la atención médica de pacientes ambulatorios. Publicada en el DOF el 16/08/2010.

3. Norma Oficial Mexicana NOM-016-SSA3-2012, Que establece las características mínimas de infraestructura y equipamiento de hospitales y consultorios de atención médica especializada. Publicada en el DOF el 08/01/2013.

CONCLUSIONES:

Por lo anteriormente expresado, el grupo técnico multidisciplinario de expertos en materia de regulación de servicios de salud, formuló las siguientes conclusiones:

Primera.- La optometría es parte de la prestación de servicios de atención médica, por lo que debe ser realizada exclusivamente en consultorios, por parte de personal profesional, que incluye médicos y licenciados en optometría, así como por personal técnico. El ejercicio profesional del personal de las disciplinas del área de la salud, está regulado de manera explícita o implícita por los ordenamientos ya mencionados, por lo que en este caso particular, no es necesario hacer explícita la optometría en la Ley General de Salud.

Segunda.- Los consultorios y las actividades que se realizan por parte del personal del área de la salud, en sus respectivos ámbitos de responsabilidad profesional y técnica, están reguladas por la Ley General de Salud en lo general y por el Reglamento de la misma Ley en Materia de Prestación de Servicios de Atención Médica en lo particular. Derogar el artículo 67 del Reglamento, tal como se solicita, por una parte dejaría en estado de indefensión y vulnerabilidad jurídica, técnica y operativa al prestador de servicios de optometría, así como a la población usuaria de los mismos y por la otra, propiciaría que dichos establecimientos funcionen de manera anárquica y posiblemente al margen de la Ley.

Tercera.- La receta con la prescripción de anteojos o lentes de contacto, emitida legal y formalmente por un profesional o técnico facultado para ello, debe ser exigida por el establecimiento o taller responsable de elaborar dichos anteojos con la graduación prescrita o características indicadas; es decir, la receta debe ser un requisito que solicite y exija quien "surte la receta y entrega el producto terminado al paciente o usuario", no de quien emite la receta con una prescripción específica.

Cuarta.- Contar con un marco regulatorio vigente, integrado por la Ley General de Salud, el Reglamento de la misma Ley en Materia de Prestación de Servicios de Atención Médica, así como por Normas Oficiales Mexicanas que regulan todo tipo de consultorios, hace innecesario que se requieran otras normas para los establecimientos en que se practica la optometría.

Quinta.- Las Normas Oficiales Mexicanas en materia de prestación de servicios de atención médica, como las referidas en párrafos anteriores, no tienen como finalidad constituirse en manuales de organización, de funcionamiento, de procedimientos, ni mucho menos en un catálogo para caracterizar, tipificar o legitimar la existencia de establecimientos que no son de atención médica. Su propósito es que a partir de las normas que les apliquen, los consultorios de optometría elaboren sus propios manuales de organización, de procedimientos y otros instrumentos que se requieran para la adecuada operación de esos establecimientos en que se practica la optometría y de ese modo cumplan con la normatividad vigente.

Sexta.- Las ópticas donde únicamente se comercializan anteojos, son establecimientos mercantiles y no de atención médica, ni son considerados consultorios de optometría; por lo que están impedidas legalmente en el ámbito de la salud, para publicitarse, ostentarse, ofertar y proporcionar esos servicios a la población.

Por último, estimamos que con los comentarios y conclusiones antes expresadas, se atiende su escrito y se da respuesta a sus peticiones. Asimismo, por instrucciones del C. Subsecretario de Integración y Desarrollo del Sector Salud, en atención a su solicitud de concertar (sic) "una cita para platicar de la salud visual y del papel que tiene la optometría en prevenir la ceguera en nuestro país", le manifiesto nuestra mejor disposición para recibirlo y escuchar personalmente sus planteamientos; por lo que he girado instrucciones al área técnica correspondiente, para que a la brevedad se pongan en contacto con usted y de común acuerdo entre ambas partes, se establezca la fecha y hora de la audiencia que usted solicita.

Sin otro particular, hago propicia la ocasión para enviarle un cordial saludo.

ATENTAMENTE
EL DIRECTOR GENERAL

DR. FRANCISCO HERNÁNDEZ TORRES.

C.c.p. Dr. Luis Rubén Durán Fontes.- Subsecretario de Integración y Desarrollo del Sector Salud.- Presente.
C.c.p. Dirección de Procesos Normativos en Salud.- Presente.

ASM/

Folio DGCES: 308

8.

List of Letters for Congressmen and Senators and two Examples from the WCO and the ALDOO

- Universidad Nacional Autónoma de México, FES Iztacala
- Instituto Politécnico Nacional, Unidad Milpa Alta
- Universidad Autónoma de Aguascalientes
- Universidad de Xochicalco Campus Tijuana
- Universidad Autónoma de Sinaloa
- Universidad de Xochicalco, Campus Mexicali
- Universidad Vasco de Quiroga (Campus Santa María, Morelia, Michoacán)
- Consejo Mexicano de Acreditación en Optometría
- Consejo Mexicano de Optometría Funcional
- Colegio de Optometristas del Estado de Coahuila
- Colegio de Optometristas del Distrito Federal
- Colegio de Optometristas del Estado de México
- Colegio de Optometristas del Estado de Chihuahua
- Colegio de Optometristas del Estado de Sinaloa
- Colegio de Licenciados en Optometría del Estado de Jalisco
- Colegio de Licenciados en Optometría del Estado de Michoacán

- Colegio Veracruzano de Optometristas
- Colegio de Optometristas de Yucatán
- Colegio de Licenciados en Optometría del Estado de Zacatecas
- Colegio de Optometristas del Estado de Aguascalientes
- Colegio de Optometristas del Estado de Baja California
- Colegio de Optometristas del Estado de Hidalgo
- Colegio de Optometristas del Estado de Morelos
- Colegio de Optometristas del Estado de Oaxaca
- Colegio de Optometristas del Estado de Sonora
- Colegio de Licenciados en Optometría del Estado de Puebla
- Colegio Médico Hidalguense
- Colegio de Licenciados en Optometría de Tamaulipas
- Colegio de Optometristas Titulados del Estado de Chiapas
- Colegio de Optometristas Titulados del Estado de San Luis Potosí
- Colegio de Licenciados en Optometría del Estado de Guanajuato
- Sociedad Médica del Hospital General de Pachuca
- World Council of Optometry
- Asociación Latinoamericana de Optometría y Óptica

- Doctors of Optometry Canada
- American Optometric Association
- Federación Colombiana de Optómetras
- Colegio de Ópticos y Optómetras de Chile
- Association of Schools and Colleges of Optometry
- Conselho Brasileiro de Óptica de Optometría
- Association des Optométristes de France
- Trinidad & Tobago Optometrists Association
- Nepalese Association of Optometrists
- New Zealand Optometric Association
- New England College of Optometry
- Universidad Nacional Autónoma de México, FES Iztacala
- Instituto Politécnico Nacional, Unidad Milpa Alta
- Universidad Autónoma de Aguascalientes
- Universidad Xochicalco Campus Tijuana
- Departamento de Optometría de la Universidad Xochicalco, Campus Mexicali
- Federación de Colegios y Asociados profesionistas delEstado de Oaxaca
- Colegio de Optometristas del Estado de Morelos
- Sociedad Oaxaqueña de Salud Pública A.C.
- Colegio de Optometristas del Estado de Baja California
- Colegio de Optometristas del Estado de Coahuila

- Colegio de Optometristas del Distrito Federal
- Colegio de Optometristas del Estado de Hidalgo
- Colegio de Licenciados en Optometría del Estado de Michoacán
- Asociación de Egresados del Instituto Politécnico Nacional de Oaxaca
- Servicios de Salud de Oaxaca (dirección de regulación y fomento sanitario)
- Colegio de Licenciados en Optometría del Estado de Puebla
- Colegio de Optometristas Titulados del Estado de San Luis Potosí
- Colegio de Optometristas del Estado de Yucatán
- Colegio de Optometristas del Estado de Oaxaca
- Consejo Mexicano de Optometría Funcional
- Colegio de Licenciados en Optometría del Estado de Guanajuato
- Colegio de Optometristas del Estado de México
- Colegio de Optometristas Titulados del Estado de Chiapas
- Colegio de Optometristas del Estado de Sinaloa

Asociación Latinoamericana de Optometría y Óptica

Puerto Rico, 4 de diciembre de 2013

Diputado Ricardo Anaya Cortés
Presidente de la LXII Legislatura
Cámara de Diputados
Honorable Congreso de la Unión
Estados Unidos Mexicanos

Folio - 2601

De nuestra mayor consideración

La Asociación Latinoamericana de Optometría y Óptica (ALDOO) es una organización civil, profesional, científica y gremial, sin fines de lucro, con personería jurídica y patrimonio propio.

ALDOO es el representante regional del Consejo Mundial de Optometría (World Council of Optometry - WCO) en Latinoamérica y el Caribe. El WCO es una organización internacional de optometría que representa a 200.000 optómetras de 94 organizaciones miembros en 50 países. Se divide en diferentes regiones, similares a las regiones definidas por la Organización Mundial de la Salud (OMS). El WCO la define como: "... *una profesión de la salud, autónoma, regulada, licenciada y registrada, y los optometristas son los profesionales de atención primaria del sistema visual que proporcionan el cuidado integral del ojo y de la visión, incluyendo la refracción, la adaptación y despacho de ayudas ópticas, la detección, el diagnóstico y el manejo de las enfermedades del ojo, y la rehabilitación de disfunciones del sistema visual*".

La Asociación en sus estatutos tiene como objetivo: procurar el desarrollo de la optometría y la óptica; velar por el decoro, el prestigio y la dignificación de la profesión; fomentar vínculos de confraternidad entre las Asociaciones, Colegios, Federaciones y/o sociedades de Optómetras y Ópticos, existentes o por crearse en los países latinoamericanos, reconocidas oficialmente por las entidades gubernamentales de cada país.

Para ALDOO, es una necesidad y una preocupación especial que todos los países de nuestra región logren resolver los problemas de salud visual de la población satisfactoriamente,

especialmente de la más pobre y desposeída. Es en esta tarea que el ejercicio de la optometría, basada en un ejercicio idóneo, competente y ético, debidamente regulado, es una alternativa efectiva y eficiente para que la comunidad resuelva sus problemas de salud visual.

Sabemos de la iniciativa legislativa para modificar el artículo 79 de la Ley General de Salud para incluir la Optometría dentro de las actividades profesionales que requieren título profesional para su ejercicio dentro de la República Mexicana. La aprobación de esta iniciativa sin duda será un paso adelante para elevar la calidad de los servicios profesionales de salud que se brinda a los ciudadanos de ese país.

La ausencia de leyes o regulación para el ejercicio profesional de la optometría pone en riesgo la salud de la población al permitir que personas sin la formación adecuada puedan realizar exámenes de salud visual sin poder detectar, cuando sea el caso, la presencia de patologías impidiendo de esta forma que, cuando lo requieran, los pacientes sean oportunamente remitidos a oftalmólogos. La ausencia de leyes o regulación no tiene ninguna justificación especialmente porque hace más de 60 años se inició en México la formación de Optometristas a nivel universitario.

Esta modificación a la Ley General de Salud dará paso a la regulación o normativa, que proporcionará de forma incluyente y explícita los derechos y las responsabilidades de los optometristas ante la sociedad y será de gran beneficio para la población, pues con ello se garantizará que el servicio de salud y la atención del cuidado visual será proporcionado por profesionales con conocimientos, herramientas conceptuales y competencias clínicas suficientes.

Aprobar esta reforma dará como resultado elevar la calidad de los servicios de atención a la salud visual de la población y contribuirá en gran medida a disminuir la discapacidad visual y la ceguera en México que, como sabemos, en un gran porcentaje es prevenible si se toman las previsiones adecuadas cuando todavía los daños no están instalado en el sistema visual.

Asociación Latinoamericana de Optometría y Óptica

Por lo anteriormente expuesto **solicitamos su apoyo para lograr que sea aprobada la iniciativa del Diputado Mario Alberto Dávila Delgado e incluir la optometría en el artículo 79 de la Ley General de Salud como una profesión que requiere título profesional para su ejercicio.**

Sin más por el momento, quedamos a sus órdenes

Max Schilling
Presidente ALDOO
Vice – Presidente COCH

Katerin Ortiz, OD, FAAO
Secretaria ALDOO

cc. Diputados y Diputadas de la Unión.
cc. Asociación Mexicana de Facultades, Escuelas, Colegios y Consejos de Optometría A.C.
cc. Junta Directiva ALDOO.

Londres 20 de Marzo del 2014

Honorable Senadora Maki Esther Ortíz Domínguez
Presidenta Comisión de Salud
Cámara de Senadores de la LXII Legislatura
Congreso de la Unión

Distinguida Senadora Ortíz Domínguez,

Re: Propuesta del Diputado Mario Alberto Dávila Delgado para la modificación del Artículo 79 de la Ley General de Salud

Le escribo a nombre del Consejo Mundial de Optometría (WCO por sus siglas en inglés). El WCO es una organización internacional que representa a más de 200,000 optometristas en 50 países y seis regiones en el mundo. El organismo regional representado en WCO es la Asociación Latinoamericana de Optometría y Óptica (ALDOO). Los miembros asociados del WCO son organizaciones de profesionales optometristas que trabajan por el mantenimiento de los más altos estándares de formación y ejercicio profesionales para asegurar que la población acceda al cuidado y salud visual de alta calidad. El WCO mantiene relaciones oficiales con la Organización Mundial de la Salud (OMS) y está representado en el Directorio Global de la Agencia Internacional para la Prevención de la Ceguera (IAPB); ambas organizaciones reconocen el rol de la Optometría en la prevención de la ceguera.

La optometría es una profesión establecida hace más de cien años en muchas partes del mundo y es definida por el WCO y ALDOO como una profesión de cuidado de la salud que sigue una formación académica y es reglamentada. La Clasificación Internacional Estándar de la Educación de la UNESCO (ISCED 1997) incluye a la Optometría dentro de los servicios médicos, dando así reconocimiento internacional a la formación académica de la Optometría.

H. CÁMARA DE SENADORES
30 MAR 2014
RECIBIDO
COMISIÓN DE SALUD

Los optometristas practican el cuidado de salud primaria del sistema visual y óptico y son quienes proporcionan cuidados integrales de la vista y la visión los cuales, de acuerdo al WCO, deberían incluir como mínimo las competencias de dispensación, refracción, prescripción y la detección de enfermedades o anormalidades para que alguien pueda llamarse optometrista. Los miembros del WCO y las organizaciones con las que colabora trabajan arduamente para asegurar que se mantengan niveles adecuados de ejercicio profesional para generar el mayor impacto posible especialmente entre los grupos vulnerables y más necesitados de la sociedad.

En nuestra experiencia, también reconocida por la OMS, los optometristas son a menudo el primer punto de contacto para la provisión de cuidado visual y como tales, se constituyen en una importante defensa contra la discapacidad visual, las enfermedades oculares previsibles y la ceguera. Los optometristas proveen cuidados accesibles y rentables dentro de su alcance y competencias profesionales, remitiendo sus pacientes a oftalmólogos u otros profesionales de la salud cuando sea apropiado.

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www.worldoptometry.org

El WCO está al tanto de que la Cámara de Diputados del Congreso Mexicano aprobó unánimemente la propuesta para modificar el Artículo 79 de la Ley General de Salud para incluir la Optometría dentro de las actividades profesionales que requieren título profesional para su ejercicio. El WCO acoge esta importante decisión. Debido al importante rol y la influencia que tiene México en muchos procesos multilaterales, incluyendo aquellos relacionados a la salud, la modificación del Artículo 79 no solo mejoraría el acceso de la población mexicana a servicios de salud y atención del cuidado visual de calidad, sino también se convertiría en un importante precedente para otros países de la región Latino Americana y del Caribe. Sin embargo, al WCO le preocupa la ausencia de leyes vigentes para el ejercicio profesional de la Optometría y la debilidad en aquellas donde se hace referencia a esta actividad en la medida que en México se están formando Optometristas de nivel universitario por más de 60 años.

El WCO cree que la modificación propuesta dará paso a la adecuada reglamentación de la profesión y será de gran beneficio para la población, pues con ello se garantizara un servicio de salud y atención del cuidado visual de calidad además de poder identificar problemas que afectan la visión de manera temprana permitiendo así la prevención de la ceguera y discapacidad visual. Esto es particularmente cierto de las cataratas, la retinopatía diabética y el glaucoma, la incidencia de las cuales esta aumentado a medida que la expectativa de vida crece. La Organización Mundial de la Salud reconoce que 43% de las causas de discapacidad visual incluida la ceguera están relacionadas a los errores refractivos no corregidos (OMS, 2010) y que los optometristas juegan un rol muy importante dentro de los equipos multidisciplinarios para atender estas problemáticas. Las comunidades pobres y con menor formación académica continúan siendo las más afectadas por la incapacidad visual y la ceguera.

A nivel global la tendencia es la de aceptar que profesionales de salud autónomos y competentes como son los optometristas, ofrezcan servicios rentables y de alta calidad.

Estamos convencidos que la Optometría en México puede desarrollarse a su máximo nivel y contribuir a una mayor universalización y eficiencia del cuidado visual y salud ocular.

Por todo lo expuesto le solicito muy respetuosamente apoyar la iniciativa de modificación del Artículo 79 de la Ley General de Salud para incluir la optometría dentro de las profesiones que requieren título universitario para su ejercicio. Tendré mucho placer en proporcionarle información más detallada si fuera necesario.

Susan Cooper

Dra. Susan Cooper
Presidenta
Consejo Mundial de Optometría

Cc:// Lic Lourdes Meza, Presidenta AMFECCO

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9.

Letter from the Ministry of Health Signed by Dr. Maki Ortiz

ETARIA DE SALUD

SUBSECRETARÍA DE INNOVACIÓN Y CALIDAD

Lieja No. 7, 1er. piso, Col. Juárez, Delegación Cuauhtémoc, C.P. 06696, México D.F.

Oficio No. SIC/CAS/ 0079 /07

México, D.F., a 11 MAY 2007

LIC. CARLOS LÓPEZ ROJAS
PRESIDENTE DE LA ASOCIACIÓN DE ÓPTICOS
Y OPTOMETRISTAS DE MÉXICO, A.C.
PRESENTE

En relación a la problemática referente al reconocimiento laboral de los capacitados y egresados de los centros de formación para el trabajo y certificados por CONOCER, a fin de que puedan realizar exámenes de refracción y fungir como responsables sanitarios de las ópticas en donde laboran como técnicos, refraccionistas de la salud visual; hago de su conocimiento lo siguiente:

Mediante oficio número SIC/0263/06 de fecha 1 de septiembre del año próximo pasado suscrito por el entonces Subsecretario de Innovación y Calidad, Dr. Enrique Ruelas Barajas, se informó respecto del criterio que sobre el particular ha emitido esta Secretaría de Salud, en el sentido de que todo centro de estudios para la formación de personal de las disciplinas para la salud, debe cumplir con lo dispuesto en la legislación sanitaria, que al respecto señala: "todo profesional, técnico o auxiliar debe contar con la documentación que haya sido legalmente expedida y registrada por las autoridades educativas competentes". Lo anterior significa que los egresados de los Centros de Formación para el trabajo incluyendo las personas que cuenten con Certificación en Competencia Laboral (en tanto que ambos casos son avalados por la Secretaría de Educación Pública), no deben tener impedimento alguno por parte de la autoridad sanitaria federal o estatal para realizar exámenes de refracción y fungir como responsables sanitarios de las ópticas en donde laboran como técnicos refraccionistas de la salud visual.

Reconocido por su atención, aprovecho la oportunidad para enviarle un cordial saludo.

Atentamente
LA SUBSECRETARIA

DRA. MAKI ORTÍZ DOMÍNGUEZ

RT/JIG
CAS/CT35/0815/07

10.

Official Gazette dated March 17, 2015

DOF: 17/03/2015

DECRETO por el que se reforma el artículo 79 de la Ley General de Salud.

Al margen un sello con el Escudo Nacional, que dice: Estados Unidos Mexicanos.- Presidencia de la República.

ENRIQUE PEÑA NIETO, Presidente de los Estados Unidos Mexicanos, a sus habitantes sabed:

Que el Honorable Congreso de la Unión, se ha servido dirigirme el siguiente

DECRETO

"EL CONGRESO GENERAL DE LOS ESTADOS UNIDOS MEXICANOS, DECRETA:

SE REFORMA EL ARTÍCULO 79 DE LA LEY GENERAL DE SALUD

Artículo Único. Se reforma el artículo 79 de la Ley General de Salud, para quedar como sigue:

Artículo 79. Para el ejercicio de actividades profesionales en el campo de la medicina, odontología, veterinaria, biología, bacteriología, enfermería, trabajo social, química, psicología, **optometría**, ingeniería sanitaria, nutrición, dietología, patología y sus ramas, y las demás que establezcan otras disposiciones legales aplicables, se requiere que los títulos profesionales o certificados de especialización hayan sido legalmente expedidos y registrados por las autoridades educativas competentes.

Para el ejercicio de actividades técnicas y auxiliares que requieran conocimientos específicos en el campo de la atención médica prehospitalaria, medicina, odontología, veterinaria, enfermería, laboratorio clínico, radiología, **optometría**, terapia física, terapia ocupacional, terapia del lenguaje, prótesis y órtesis, trabajo social, nutrición, citotecnología, patología, bioestadística, codificación clínica, bioterios, farmacia, saneamiento, histopatología y embalsamiento y sus ramas, se requiere que los diplomas correspondientes hayan sido legalmente expedidos y registrados por las autoridades educativas competentes.

Transitorio

Único. El presente Decreto entrará en vigor al día siguiente al de su publicación en el Diario Oficial de la Federación.

México, D.F., a 12 de febrero de 2015.- Dip. **Silvano Aureoles Conejo**, Presidente.- Sen. **Miguel Barbosa Huerta**, Presidente.- Dip. **Javier Orozco Gómez**, Secretario.- Sen. **María Elena Barrera Tapia**, Secretaria.- Rúbricas."

En cumplimiento de lo dispuesto por la fracción I del Artículo 89 de la Constitución Política de los Estados Unidos Mexicanos, y para su debida publicación y observancia, expido el presente Decreto en la Residencia del Poder Ejecutivo Federal, en la Ciudad de México, Distrito Federal, a diez de marzo de dos mil quince.- **Enrique Peña Nieto**.- Rúbrica.- El Secretario de Gobernación, **Miguel Ángel Osorio Chong**.- Rúbrica.

http://dof.gob.mx/nota_detalle.php?codigo=5385543&fecha=17/03/2015

11.

Statement from the Senate of the Republic

Requesting the Suspension of CONOCER Certificates

Proponen suspender certificados de técnicos en optometría

Domingo, 15 de Junio de 2014 12:55

COMUNICADO-1000

Prácticamente cualquier persona puede ser acreditada para hacer estudios relacionados a la salud visual: senador Romo Medina

Inadecuada atención de enfermedades como el glaucoma conducen a la ceguera, advierte el legislador por el PRI

Es urgente la profesionalización de prácticas y estudios relacionados con la salud visual en la vista, pues más de un millón 292 mil mexicanos padecen de alguna discapacidad visual y, de no atenderse adecuadamente, corren el riesgo de que sufrir incluso ceguera.

Así lo advirtió el senador del PRI, Miguel Romo Medina, al presentar el punto de acuerdo por el que se solicita al Consejo Nacional de Normalización y Certificación de Competencias Laborales (Conocer) suprima la emisión de certificaciones referentes a las Normas Técnicas de Competencias Laborales relacionadas con la salud visual, el cual se turnó a la Segunda Comisión de la Permanente.

El legislador puntualizó que un gran porcentaje de la población padece glaucoma o la degeneración macular, que causan pérdida paulatina de la vista, y de no atenderse adecuadamente conducen a la pérdida total de la vista.

A pesar de lo anterior, advirtió, normas técnicas de competencia laboral como la NUOPT002.01: Adaptación de lentes de contacto y la "NUOPT001.01: Práctica de examen de refracción, acreditan prácticamente a cualquier persona para realizar prácticas y estudios relacionados con la salud visual.

La gravedad del problema, insistió, obliga a otorgarle la importancia debida a la salud visual y facultar sólo a los licenciados en oftalmología y optometría para realizar consultas, tratamientos y diagnósticos.

Romo Medina destacó que su propuesta es en beneficio tanto de la población infantil como adulta, pues acorde a la Asociación Mexicana de Facultades, Escuelas, Colegios y Consejos de Optometría, A. C, más de 48 millones de personas requieren de servicios optométricos, de los cuales 20 por ciento corresponde a niños en edad escolar, mientras que en mayores de 45 años la cifra es del 100 por ciento.

12.

Point of Agreement of the Permanent Commission of Congress where the Elimination of the CONOCER Certificates is Requested

En razón de lo anterior, las legisladoras y los legisladores integrantes de la Segunda Comisión de Relaciones Exteriores, Defensa Nacional y Educación Pública, sometemos a consideración de esta Honorable Soberanía el siguiente:

PUNTO DE ACUERDO

ÚNICO.- La Comisión Permanente del H. Congreso de la Unión solicita respetuosamente al Consejo Nacional de Normalización y Certificación de Competencias Laborales (CONOCER) que suprima la emisión de certificaciones referentes a las Normas Técnicas de Competencias Laborales relacionadas con la salud visual.

Salón de Sesiones de la H. Comisión Permanente, a los 17 días del mes de junio de 2014.

13.

CONOCER,

Competency Standard

conocer

conocimiento • competitividad • crecimiento

ESTÁNDAR DE COMPETENCIA

I.- Datos Generales

Código	**Título**
EC0994	Desarrollar los servicios de optometría y los productos ópticos

Propósito del Estándar de Competencia

Servir como referente para la evaluación y certificación de las personas que desarrollan las funciones relativas a la detección de los problemas visuales del cliente y la elaboración y venta de lentes oftálmicos y de contacto.

Asimismo, puede ser referente para el desarrollo de programas de capacitación y de formación basados en Estándares de Competencia (EC).

El presente EC se refiere únicamente a funciones para cuya realización no se requiere por disposición legal, la posesión de un título profesional. Por lo que para certificarse en este EC no deberá ser requisito el poseer dicho documento académico.

Descripción general del Estándar de Competencia

El estándar describe y cita las funciones críticas relativas a la realización de las pruebas para determinar la agudeza y capacidad visual del cliente, el estado de salud visual, alternativas de solución y determinación de la graduación final, así como las características de las diferentes lentes que atienden a las necesidad visual del cliente y por último al servicio final de entrega de los lentes, de proporcionar información sobre su uso y dar servicio posventa.

Todo lo anterior complementado por los conocimientos específicos necesarios para el desarrollo de las funciones considerada en el presente EC.

El presente EC se fundamenta en criterios rectores de legalidad, competitividad, libre acceso, respeto, trabajo digno y responsabilidad social.

Nivel en el Sistema Nacional de Competencias: Dos

Desempeña actividades programadas que, en su mayoría son rutinarias y predecibles. Depende de las instrucciones de un superior. Se coordina con compañeros de trabajo del mismo nivel jerárquico.

Comité de Gestión por Competencias que lo desarrolló:

De la Subsecretaría de Educación Media Superior

Fecha de aprobación por el Comité Técnico del CONOCER:	**Fecha de publicación en el Diario Oficial de la Federación:**
18 de mayo de 2018	28 de junio de 2018
Periodo sugerido de revisión /actualización del EC:	
3 años	

Ocupaciones relacionadas con este EC de acuerdo con el Sistema Nacional de Clasificación de Ocupaciones (SINCO)

Grupo unitario
2422 Optometristas.

Ocupaciones asociadas
Optometrista y óptico.

Clasificación según el sistema de Clasificación Industrial de América del Norte (SCIAN)

Sector:
62 Servicios de salud y de asistencia social.
Subsector:
621 Servicios médicos de consulta externa y servicios relacionados.
Rama:
6213 Otros consultorios para el cuidado de la salud
Subrama:
62132 Consultorios de optometría.
Clase:
621320 Consultorios de optometría.

El presente EC, una vez publicado en el Diario Oficial de la Federación, se integrará en el Registro Nacional de Estándares de Competencia que opera el CONOCER a fin de facilitar su uso y consulta gratuita.

Organizaciones participantes en el desarrollo del Estándar de Competencia

- Devlyn

Aspectos relevantes de la evaluación

Detalles de la práctica:
- Para demostrar la competencia en este EC, se recomienda que se lleve a cabo en el lugar de trabajo y durante su jornada laboral, sin embargo, pudiera realizarse de forma simulada si el área de evaluación cuenta con los materiales, insumos, e infraestructura, para llevar a cabo el desarrollo de todos los criterios de evaluación referidos en el EC.

Apoyos/Requerimientos:
- Consultorio de optometría / gabinete equipado con sillón, foroptor, proyector; retinoscopio; oftalmoscopio; queratómetro; caja de pruebas y armazón de pruebas; oclusor; cartilla de lectura; cartilla de optotipos; regla milimétrica;
- Insumos de limpieza e higiene de manos, pañuelos desechables; lavabo con agua y jabón; solución antiséptica.
- Insumos para las pruebas,
- Formato de historial del caso que cumpla con los requerimientos del EC de referencia
- Cliente real o simulado

Duración estimada de la evaluación

- 1 hora en gabinete y 5 horas en campo, totalizando 6 horas

Referencias de Información

- Artículo 79 de la Ley General de Salud

II.- Perfil del Estándar de Competencia

Estándar de Competencia

Desarrollar los servicios de optometría y productos ópticos

Elemento 1 de 3

Detectar problemas visuales del cliente

Elemento 2 de 3

Elaborar lentes oftálmicos y de contacto

Elemento 3 de 3

Vender lentes oftálmicos

III.- Elementos que conforman el Estándar de Competencia

Referencia	Código	Título
1 de 3	E3129	Detectar problemas visuales del cliente

CRITERIOS DE EVALUACIÓN

La persona es competente cuando demuestra los siguientes:

DESEMPEÑOS

1. Entrevista al cliente:
   - Indicando su nombre y actividades que van a realizar,
   - Indicando que va a generar el historial de su persona y caso,
   - Solicitando sus datos generales,
   - Preguntando el motivo de su visita,
   - Solicitando sus antecedentes de salud general, personal y familiar,
   - Profundizando en los aspectos que tengan repercusión ocular,
   - Indagando información de su salud visual y de su historial óptico,
   - Preguntando su ocupación, actividades y pasatiempos, y
   - Registrando en la historia del caso los aspectos relevantes relacionados con su condición visual.

2. Determina la agudeza y capacidad visual del cliente:
   - Guardando la relación de la distancia requerida entre el cliente y el tamaño de los optotipos utilizados,
   - Utilizando la iluminación que permita la visibilidad del optotipo,
   - Realizando la medición monocular y binocular,
   - Considerando las reacciones y respuestas del cliente,
   - Corrigiendo la postura del cliente cuando se requiera,
   - Utilizando el Agujero Estenopéico, y
   - Registrando los resultados cuando termina la evaluación de cada ojo.

3. Determina la integridad de los anexos oculares y reflejos pupilares:
   - Lavándose las manos antes de la exploración,
   - Explorando pestañas y párpados,
   - Realizando pruebas de motilidad ocular,
   - Realizando la toma de presión intraocular palpable/tonometría,
   - Registrando las anomalías que presente, y
   - Lavándose las manos después de la exploración.

4. Determina las medidas queratométricas:
   - Alineando la cara del cliente con las líneas de ajuste del Queratómetro,
   - Ajustando el ocular del Queratómetro hasta que la cruz de fe se vea nítida,
   - Calibrando las miras del Queratómetro hasta que se vean nítidas y alineadas el eje,
   - Verificando los resultados obtenidos en las escalas del Queratómetro, y
   - Registrando las medidas queratométricas en la historia del caso del cliente.

5. Determina la distancia interpupilar del cliente:
   - Midiendo la distancia para lejos, cerca, monocular y binocular y
   - Registrando el resultado obtenido en la historia del caso del cliente.

6. Ajusta el Foroptor:
   - De acuerdo a la distancia interpupilar del cliente,
   - Nivelando su posición horizontal con la burbuja de nivel, y
   - Manteniendo la posición de distancia al vértice.

7. Determina la graduación inicial del cliente:
   - Tomando la medición de la graduación con el Autorrefractómetro,
   - Tomando la medición de la graduación con el Retinoscopio,
   - Afinando con pruebas subjetivas, y
   - Registrando la graduación inicial del cliente en la historia del caso.

8. Aplica la prueba bicromática:
   - Preguntándole al cliente que colores ve,
   - Miopizando la visión del cliente con una graduación de + 0.50,
   - Confirmando con el cliente en qué color ve más nítidas las letras,
   - Realizando los ajustes necesarios en la graduación esférica, y
   - Confirmando con el cliente que su visión es igual en ambos colores.

9. Realiza la prueba de Máximo Poder Positivo para Mejor Agudeza Visual:
   - Miopizando la visión del cliente con una graduación de + 1.00, y
   - Disminuyendo la graduación esférica de + 1.00 hasta que el cliente reporte ver nítidos los optotipos.

10. Realiza la prueba de cilindro cruzado:
    - Miopizando la visión del cliente con +0.50 esférico,
    - Utilizando el cilindro cruzado en posición para afinar el eje y el poder cilíndrico, y
    - Ajustando el eje y poder del cilindro de acuerdo a las respuestas del cliente.

11. Determina las condiciones de los medios refringentes:
    - Verificando la transparencia de cada uno de ellos,
    - Verificando la salud ocular en general del fondo del ojo, y
    - Registrando las irregularidades detectadas.

12. Realiza la prueba ambulatoria:
    - Utilizando el armazón de pruebas,
    - Colocando los lentes con la graduación determinada con una diferencia no mayor a 3D entre un ojo y otro,
    - Ajustando el armazón de pruebas a las características y medidas del cliente,
    - Solicitando al cliente que deambule con el armazón de pruebas puesto con los lentes seleccionados,
    - Preguntando al cliente si ve el entorno normal mientras camina y si se siente cómodo con los lentes seleccionados,
    - Preguntando al cliente si lee y ve de cerca con los lentes seleccionados,
    - Ajustando la graduación de acuerdo a las respuestas del cliente y
    - Registrando el resultado de la graduación final.

13. Informa al cliente su estado de salud visual y las alternativas de solución:
    - Considerando los resultados obtenidos durante las pruebas realizadas,
    - Informando el diagnóstico,
    - Indicando las principales causas del problema que presenta,
    - De acuerdo al estado refractivo de sus ojos,
    - De acuerdo a las necesidades refractivas detectadas,
    - Considerando la corrección visual que requiere,
    - De acuerdo a la ocupación, actividades y pasatiempos del mismo, y
    - Destacando las ventajas y desventajas generales de cada alternativa.

La persona es competente cuando obtiene los siguientes:

PRODUCTOS

1. La historia del caso integrada:
    - Contiene los datos generales del cliente,
    - Incluye los antecedentes de salud general, personal y familiar,
    - Especifica los antecedentes de salud visual, personal y familiar,
    - Indica las características de los lentes en uso del cliente,
    - Contiene los resultados de la agudeza visual determinada,
    - Especifica los aspectos relevantes del estado de los anexos oculares,
    - Contiene las irregularidades de transparencia detectadas en los medios refringentes,
    - Especifica la distancia interpupilar del cliente,
    - Contiene los resultados de la retinoscopia del cliente,
    - Especifica la graduación definitiva que requiere el cliente,
    - Especifica la corrección visual que requiere el cliente, e
    - Indica las alternativas de solución visual para el cliente.

2. La receta óptica elaborada:
    - Incluye la graduación definitiva determinada,
    - Corresponde a las necesidades visuales del cliente, y
    - Contiene los datos generales del cliente.

La persona es competente cuando posee los siguientes:

CONOCIMIENTOS	NIVEL
1. Partes del ojo humano y sus funciones: • Anexos • Segmento anterior • Segmento posterior • Fondo de ojo	Comprensión
2. Principales enfermedades que alteran la visión de las personas: • Diabetes • Hipertensión • Glaucoma • Catarata • Queratocono	Comprensión

CONOCIMIENTOS	NIVEL
3. Ametropias: • Miopia • Hipermetropía • Astigmatismo • Presbiopía	Comprensión
4. Interpretación de las medidas refractivas que se obtienen del • Autorrefractómetro. • Retinoscopia	Comprensión
5. Que es la Presbicie y como se detecta a un paciente presbita.	Comprensión

ACTITUDES/HÁBITOS/VALORES

1. Amabilidad:	La manera en que recibe al cliente en el consultorio de optometría, dándole la bienvenida, se presenta y se dirige a él con cordialidad y respeto, mostrando interés en sus comentarios y demostrándole responsabilidad profesional.
2. Tolerancia:	La manera en que escucha al cliente, le proporciona instrucciones adicionales y lo atiende pacientemente al momento de realizarle el examen visual.
3. Responsabilidad:	La manera en que informa detalladamente al cliente su diagnóstico, la corrección visual que requiere, así como las ventajas y desventajas de las alternativas que se le proporcionan y seguimiento posventa.

GLOSARIO

1. Agudeza visual:	Es la habilidad que presenta el ojo para percibir detalles, con o sin ayuda óptica.
2. Agujero Estenopéico:	Accesorio que se utiliza para determinar la capacidad visual de los clientes.
3. Autorrefractómetro:	Equipo que mide de forma electrónica los posibles defectos de refracción de los ojos. Determina objetivamente el valor refractivo ocular.
4. Cliente:	Se le denomina y conoce también como paciente, socio y/o usuario. En cualquiera de los casos, nos referimos a la persona que acude a un lugar especializado para que le realicen un examen visual.
5. Consultorios de optometría:	Refiere al lugar en el que se practica el examen de refracción y se adaptan lentes de contacto, también se conoce como gabinete.
6. Cruz de fe:	Es la imagen en forma de cruz que se observa a través del ocular del lensómetro.
7. Datos generales:	También se les denomina datos personales y consideran el

	nombre del cliente, edad, dirección, teléfono y correo electrónico.
8. Eje de la lente:	Refiere a la línea que une los centros de curvatura de las dos caras esféricas de las lentes.
9. Foroptor:	Instrumento que contiene lentes de diferentes graduaciones y accesorios, que se utiliza para determinar la graduación del paciente.
10. Graduación:	Hace alusión al poder refractivo de la lente.
11. Historia del caso:	Formato utilizado para registrar los datos del paciente y su historial óptico.
12. Historial óptico:	Se refiere a la información que el cliente puede proporcionar acerca de sus datos generales, salud en general, anteojos o lentes de contacto que utilice, o haya utilizado, así como a los resultados de la medición objetiva que debe realizarse para determinar las características de los mismos.
13. Medición Binocular:	Se refiere al procedimiento que se realiza para determinar cuánto ve el cliente con ambos ojos con la mejor corrección posible.
14. Medición Monocular:	Se refiere al procedimiento que se realiza para determinar cuánto ve el cliente con cada ojo, y se realiza primero al ojo derecho y posteriormente al ojo izquierdo.
15. Medidas queratométricas:	Es el resultado de la queratometría. Dichas medidas corresponden a la curvatura de la de cada una de las corneas del cliente, y se dan en dioptrías / milímetros y ejes.
16. Medios refringentes:	Se refieren a córnea, humor acuoso, cristalino y humor vítreo.
17. Miopizar:	Agregar graduación positiva para que el cliente vea borroso y relajar la visión.
18. Métodos objetivos:	Son pruebas que se aplican para determinar la graduación que requiere un cliente, y se realizan con equipos especializados. Se caracterizan por que su resultado depende únicamente de las habilidades de la persona que realice la prueba.
19. Métodos subjetivos:	Son pruebas que se aplican para determinar la graduación que requiere un cliente y depende de las respuestas que proporciona el paciente.
20. Necesidades refractivas:	Se refiere al poder necesario de los lentes para que el cliente obtenga una buena visión.
21. Presbicie:	Defecto de refracción involutivo debido, por la edad, a disminución de la amplitud de acomodación por alejamiento del punto próximo, dificultando o imposibilitando la visión de cerca. La edad de comienzo de la presbicie en el emétrope es entre 40 y 45 años.
22. Prueba Ambulatoria:	Es una prueba subjetiva que se utiliza para confirmar la tolerancia del paciente a la graduación final, pidiéndole que deambule.
23. Prueba Bicromática:	También se conoce en el medio como prueba roji-verde o duocromo. Es una prueba subjetiva que se utiliza para afinar el poder esférico de la graduación.

24. Prueba de Cilindro Cruzado:	Es una prueba subjetiva que se utiliza para afinar el eje y el poder cilíndrico de la graduación.
25. Prueba de Máximo Poder Positivo para Mejor Agudeza Visual:	Es una prueba subjetiva para relajar el sistema visual y que se utiliza para determinar el mayor poder positivo o menor poder negativo, el cual proporcione la mejor agudeza visual. También se cita como MPP / MAV.
26. Queratómetro:	Equipo también conocido como queratoscopio u oftalmómetro, que sirve para realizar la prueba a un cliente en la que se determinan los parámetros de su córnea, tales como la medida de sus radios de curvatura de los ejes principales de la córnea.
27. Queratocono:	Es una patología degenerativa de la córnea (la parte transparente de la cara anterior del ojo) no inflamatoria, caracterizada por una alteración en su forma, que se hace irregular, como consecuencia de la alteración de uno de sus principales componentes el colágeno.
28. Retinoscopio:	Es el instrumento utilizado para determinar el foco del ojo del paciente. Cuando el punto focal del retinoscopio y el ojo coinciden, la imagen del retinoscopio aparece como una línea claramente enfocada en la pupila del ojo. Consta de una fuente de luz, una lente, un espejo plano y un espejo cóncavo y un mando de enfoque para variar la distancia entre la bombilla y la lente.

Referencia	Código	Título
2 de 3	E3130	Elaborar lentes oftálmicos y de contacto

CRITERIOS DE EVALUACIÓN

La persona es competente cuando obtiene los siguientes:

PRODUCTOS

1. La orden de solicitud de los lentes de contacto de diagnóstico elaborada:
   - Especifica el tipo, el diámetro, la curva base, el poder, el diseño, material y tipo del lente de contacto, e,
   - Incluye los cálculos de especificación de los lentes de contacto.

2. La orden de solicitud de los lentes de contacto finales elaborada:
   - Especifica el tipo, el diámetro, la curva base, el poder, el diseño, material y tipo del lente de contacto, e,
   - Incluye los cálculos de especificación de los lentes de contacto.

La persona es competente cuando posee los siguientes:

CONOCIMIENTOS	NIVEL
1. Procedimiento general para verificar el funcionamiento de la biseladora.	Conocimiento
2. Procedimiento general para verificar la bloqueadora.	Conocimiento

CONOCIMIENTOS	NIVEL
3. Procedimiento general para verificar el equipo de medición para el biselado de las lentes.	Conocimiento
4. Procedimiento general para ajustar el lensómetro.	Conocimiento
5. Procedimiento general para verificar el estado físico de las lentes.	Conocimiento
6. Aspectos a verificar en el armazón para el montaje de las lentes.	Conocimiento
7. Acciones a realizar cuando el equipo del banco de biselado presenta fallas mayores.	Conocimiento
8. Condiciones físicas que debe presentar la biseladora para avisar que requiere mantenimiento.	Conocimiento
9. Acciones a realizar cuando un armazón: • Tiene características distintas a las especificadas en la orden de pedido. • Tiene un diseño no apto para montar la lente. • Presenta anomalías que impiden el montaje de las lentes.	Conocimiento
10. Tolerancia de la graduación y ejes en lentes oftálmicas de acuerdo a la ANSI Z80.1-última versión.	Conocimiento
11. Criterios para determinar ajustes de biselado.	Conocimiento
12. Cálculo de descentrado y de altura de la lente.	Aplicación
13. Procedimiento y cuidados para ranurar las lentes.	Comprensión
14. Procedimiento y cuidados para perforar las lentes.	Comprensión
15. Procedimiento para ajustar el armazón de acetato/pasta.	Comprensión
16. Procedimiento para determinar el lente de contacto de diagnóstico del cliente.	Aplicación
17. Tipo de soluciones para mantenimiento y uso de lentes de contacto.	Conocimiento
18. Características del lente de contacto que causan exceso de movimiento y visión borrosa y deteriorada.	Aplicación
19. Modalidad de uso de los lentes de contacto.	Conocimiento
20. Tipos de materiales de los lentes de contacto.	Conocimiento
21. Procedimiento para colocar y remover los lentes de contacto blandos y rígidos	Comprensión

GLOSARIO

1. Biselado:	Es el terminado que se le da a la lente oftálmica graduada de acuerdo al diseño del armazón.
2. Características de los lentes de contacto:	Se entiende por características el conjunto de curva base, diámetro, poder y diseño.
3. Lensómetro:	Es el instrumento óptico que sirve para medir la potencia de una lente.
4. Lentes bifocales:	Se les conoce de esta forma a las lentes con dos focos, la parte superior destinada para la visión lejana y la inferior para la visión próxima.

5. Lentes progresivas: Son las lentes que poseen diferentes áreas de potencia dióptrica uniforme y progresiva utilizada en la corrección de la presbicia.
6. Orden de pedido: Es la receta que envia el refraccionista/profesional de la salud visual para la graduación del tipo de lente requerida.
7. Ranura: Es un canal angosto cortado en la superficie de una pieza de trabajo.
8. Rx: Refiere al poder de la lente expresado en dioptrías y a los grados de ubicación del eje del cilindro.
9. Tipo de lentes: Es el diseño de la lente, el cual puede ser monofocal, bifocal y progresivo.

Referencia	Código	Título
3 de 3	E3131	Vender lentes oftálmicos

CRITERIOS DE EVALUACIÓN

La persona es competente cuando demuestra los siguientes:

DESEMPEÑOS

1. Acuerda con el cliente la aceptación del producto:
   - Resumiendo los beneficios y cuidados del producto,
   - Confirmando la forma en que resuelve sus necesidades,
   - Verificando que cumpla con las especificaciones de la orden de trabajo después de procesado,
   - Inspeccionando las condiciones del producto en presencia del cliente,
   - Ofreciendo productos adicionales de acuerdo a las necesidades del cliente,
   - Conviniendo el precio, forma de pago, promociones, descuentos, garantías, servicios adicionales y accesorios,
   - Ajustando el armazón colocando las plaquetas de acuerdo a la forma de cara del cliente,
   - Corrigiendo el largo de varillas,
   - Verificando las terminales de acuerdo con la forma anatómica de la oreja del cliente, y,
   - Alineándolo con respecto al ángulo pantoscópico de 10 a 12 grados y al ángulo de envolvencia.

2. Entrega el lente oftálmico al cliente:
   - Revisando que se encuentre en buen estado,
   - Indicándole las limitaciones referentes al uso, y
   - Mencionándole las recomendaciones de manejo y cuidado del mismo.

3. Realiza el servicio postventa:
   - Preguntando al cliente si está satisfecho con el producto adquirido, y
   - Ofreciendo nuevos productos ópticos de acuerdo a las necesidades del cliente.

La persona es competente cuando posee los siguientes:

CONOCIMIENTOS NIVEL

CONOCIMIENTOS	NIVEL
1. Características de los materiales para el diseño de lentes.	Comprensión
2. Tipos de anteojos de acuerdo a las formas de cara	Comprensión
3. Tipos y manejo de lentes de contacto y soluciones.	Comprensión
4. Características y beneficios de la protección U.V.	Comprensión
5. Tipos de materiales de armazones.	Comprensión
6. Adaptación de progresivos.	Comprensión
7. Interpretación de Rx.	Comprensión

La persona es competente cuando demuestra las siguientes:

ACTITUDES/HÁBITOS/VALORES

1. Perseverancia:	La manera en que ofrece diferentes productos ópticos adicionales al cliente después de concretar la venta.

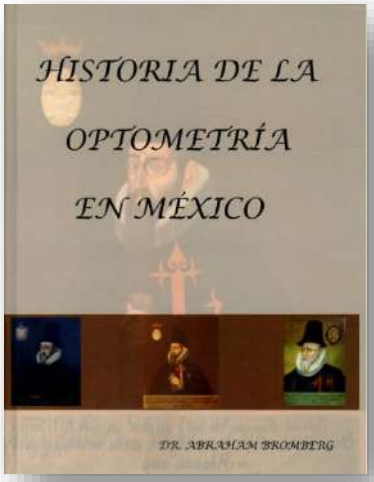
GLOSARIO

1. Ángulo pantoscópico:	Es la inclinación que debe de tener un armazón con respecto al plano facial.
2. Anteojos:	Es el sistema de armazón y lentes oftálmicos que dan corrección refractiva y/o protección solar al cliente.
3. Plaquetas:	También se le llama puente anatómico.
4. Productos ópticos:	Todos aquellos referentes a la corrección óptica de las ametropias como: armazones, lentes oftálmicos y de contacto, accesorios y soluciones para el mantenimiento de los lentes.

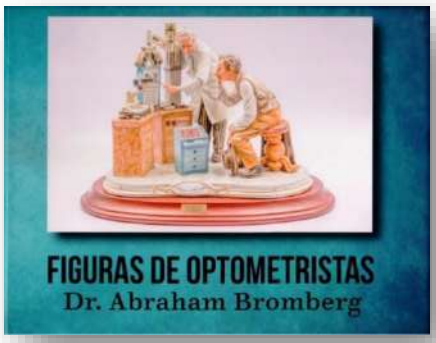
14.

Books


Visión
Baja
¿Qué es? ¿Qué la causa? ¿Qué hacer?
DR. ABRAHAM BROMBERG


HISTORIA DE LA
OPTOMETRÍA
EN MÉXICO
DR. ABRAHAM BROMBERG


Uso de los anteojos para
todo tipo de vistas


FIGURAS DE OPTOMETRISTAS
Dr. Abraham Bromberg

15.

Repeal of Article 67

DOF: 17/07/2018

DECRETO por el que se reforman, adicionan y derogan diversas disposiciones del Reglamento de la Ley General de Salud en materia de Prestación de Servicios de Atención Médica.

Al margen un sello con el Escudo Nacional, que dice: Estados Unidos Mexicanos.- Presidencia de la República.

ENRIQUE PEÑA NIETO, Presidente de los Estados Unidos Mexicanos, en ejercicio de la facultad que me confiere el artículo 89, fracción I de la Constitución Política de los Estados Unidos Mexicanos, y con fundamento en los artículos 39 de la Ley Orgánica de la Administración Pública Federal, así como 17 Bis, 28 Bis, 45, 46, 47, 78 y 79 de la Ley General de Salud, he tenido a bien expedir el siguiente

DECRETO POR EL QUE SE REFORMAN, ADICIONAN Y DEROGAN DIVERSAS DISPOSICIONES DEL REGLAMENTO DE LA LEY GENERAL DE SALUD EN MATERIA DE PRESTACIÓN DE SERVICIOS DE ATENCIÓN MÉDICA

ARTÍCULO ÚNICO.- Se **REFORMAN** los artículos 7o, fracción III, 60 y 64, se **ADICIONA** un segundo párrafo al artículo 66 y se **DEROGA** el artículo 67 del Reglamento de la Ley General de Salud en materia de Prestación de Servicios de Atención Médica, para quedar como sigue:

ARTICULO 7o.- ...

I. a **II.** ...

III.- ESTABLECIMIENTO PARA LA ATENCIÓN MÉDICA.- Todo aquél, público, social o privado, fijo o móvil, cualquiera que sea su denominación, que preste servicios de atención médica, ya sea ambulatoria o para internamiento de enfermos;

IV. a **VI.** ...

Artículo 60.- Los consultorios deberán contar con el equipo, mobiliario e instrumental señalados en las normas oficiales mexicanas que emita la Secretaría, en materia de establecimientos que brindan servicios de atención médica a pacientes ambulatorios.

El responsable del consultorio al presentar los avisos correspondientes, deberá señalar las actividades que se realizarán en el mismo.

Artículo 64.- Las recetas expedidas a Usuarios deberán contener lo siguiente:

I. El nombre del profesional de la salud o, en su caso, el del pasante responsable de la prescripción;

II. El nombre de la institución que les hubiere expedido el título profesional, la profesión o pasantía de que se trate;

III. El número de la cédula profesional o de autorización provisional para ejercer como pasante, otorgada por la autoridad educativa competente;

IV. El domicilio del Establecimiento para la Atención Médica;

V. La fecha de su expedición, y

VI. La firma autógrafa o, en caso de contar con medios tecnológicos, firma digital o electrónica de quien la expide.

Asimismo, las recetas a que se refiere este artículo deberán ajustarse a las demás especificaciones que se determinen en las disposiciones jurídicas aplicables.

Artículo 66.- ...

Tratándose de consultorios dedicados a actividades profesionales, a que se refiere el artículo 79 de la Ley, distintas de la medicina y sus especialidades, se requerirá al menos de un profesional de la salud con formación específica, en el área correspondiente.

Artículo 67.- Derogado.

TRANSITORIO

ÚNICO. El presente Decreto entrará en vigor al día siguiente de su publicación en el Diario Oficial de la Federación.

Dado en la Residencia del Poder Ejecutivo Federal, en la Ciudad de México, a seis de julio de dos mil dieciocho.- Enrique Peña Nieto.- Rúbrica.

https://dof.gob.mx/nota_detalle.php?codigo=5531691&fecha=17/07/2018

16.

Summary of SSA Policy 005

DOF: 09/07/2020

NORMA Oficial Mexicana NOM-005-SSA3-2018, Que establece los requisitos mínimos de infraestructura y equipamiento de establecimientos para la atención médica de pacientes ambulatorios.

Al margen un sello con el Escudo Nacional, que dice: Estados Unidos Mexicanos.- Secretaría de Salud.

ASA EBBA CHRISTINA LAURELL, Subsecretaria de Integración y Desarrollo del Sector Salud y Presidenta del Comité Consultivo Nacional de Normalización de Innovación, Desarrollo, Tecnologías e Información en Salud, con fundamento en lo dispuesto por los artículos 39, de la Ley Orgánica de la Administración Pública Federal; 4, de la Ley Federal de Procedimiento Administrativo; 38, fracción II, 40, fracciones III y XI, 43 y 47, fracción IV, 52, 55 y 112, de la Ley Federal sobre Metrología y Normalización; 3o fracciones I y II, 13, apartado A, fracciones I y II, 45 y 46, de la Ley General de Salud; 28 y 34, del Reglamento de la Ley Federal sobre Metrología y Normalización; 7o y 10o, fracciones I, II y III, del Reglamento de la Ley General de Salud en materia de Prestación de Servicios de Atención Médica; 8 fracción V y 9, fracción IV Bis, del Reglamento Interior de la Secretaría de Salud, y

CONSIDERANDO

Que con fecha 20 de enero de 2017 en cumplimiento del acuerdo del Comité Consultivo Nacional de Normalización de Innovación, Desarrollo, Tecnologías e Información en Salud y de lo previsto en el artículo 47, fracción I, de la Ley Federal sobre Metrología y Normalización, se publicó en el Diario Oficial de la Federación el proyecto de modificación de la presente Norma, a efecto de que en los siguientes 60 días naturales posteriores a dicha publicación, los interesados presentaran sus comentarios al Comité Consultivo Nacional de Normalización de Innovación, Desarrollo, Tecnologías e Información en Salud;

Que durante el periodo de Consulta Pública de 60 días, que concluyó el 21 de marzo de 2017, fueron recibidos en la sede del citado Comité, los comentarios formulados por los interesados respecto del proyecto de la Norma Oficial Mexicana, razón por la cual, con fecha previa fueron publicadas en el Diario Oficial de la Federación las respuestas a los mismos, en términos de lo previsto por el artículo 47, fracción III, de la Ley Federal sobre Metrología y Normalización;

Que la Secretaría de Salud, a través de la Subsecretaría de Integración y Desarrollo del Sector Salud ha dado cumplimiento a lo establecido en los artículos 78 de la Ley General de Mejora Regulatoria y Quinto del Acuerdo que fija los lineamientos que deberán ser observados por las dependencias y organismos descentralizados de la Administración Pública Federal, en cuanto a la emisión de los actos administrativos de carácter general a los que les resulta aplicable el artículo 69-H de la Ley Federal de Procedimiento Administrativo, publicado en el Diario Oficial de la Federación, el 8 de marzo de 2017, con las acciones de desregulación realizadas que representan un ahorro de hasta $90,872,839.00 pesos, y

Que en atención a las anteriores consideraciones, contando con la aprobación del Comité Consultivo Nacional de Normalización de Innovación, Desarrollo, Tecnologías e Información en Salud, se expide la siguiente:

NORMA OFICIAL MEXICANA NOM-005-SSA3-2018, QUE ESTABLECE LOS REQUISITOS MÍNIMOS DE INFRAESTRUCTURA Y EQUIPAMIENTO DE ESTABLECIMIENTOS PARA LA ATENCIÓN MÉDICA DE PACIENTES AMBULATORIOS

PREFACIO

En la elaboración de la presente Norma participaron:

CONSEJO GENERAL DE SALUBRIDAD.

SECRETARÍA DE SALUD.

Subsecretaría de Integración y Desarrollo del Sector Salud.
Dirección General de Calidad y Educación en Salud.
Dirección General de Desarrollo de la Infraestructura Física.
Dirección General de Información en Salud.
Dirección General de Planeación y Desarrollo en Salud.
Centro Nacional de Excelencia Tecnológica en Salud.
Comisión Coordinadora de Institutos Nacionales de Salud y Hospitales de Alta Especialidad.
Comisión Federal para la Protección contra Riesgos Sanitarios.
INSTITUTO NACIONAL DE PEDIATRÍA.
HOSPITAL GENERAL DE MÉXICO DR. EDUARDO LICEAGA.
INSTITUTO MEXICANO DEL SEGURO SOCIAL.
Dirección de Prestaciones Médicas.
Coordinación de Unidades Médicas de Alta Especialidad.
INSTITUTO DE SEGURIDAD Y SERVICIOS SOCIALES DE LOS TRABAJADORES DEL ESTADO.
PETRÓLEOS MEXICANOS.
Hospital Central Norte.
SISTEMA NACIONAL PARA EL DESARROLLO INTEGRAL DE LA FAMILIA.
SECRETARÍA DE SALUD DE LA CIUDAD DE MÉXICO
Dirección de Coordinación y Desarrollo Sectorial.
Dirección Atención Médica.
SECRETARÍA DE SALUD EN EL ESTADO DE HIDALGO.
Comisión para la Protección sobre Riesgos Sanitarios del Estado de Hidalgo.
SECRETARÍA DE SALUD EN EL ESTADO DE MORELOS.
Dirección General de Servicios de Salud de Morelos.
SECRETARÍA DE SALUD EN EL ESTADO DE PUEBLA.
Subdirección de Enseñanza e Investigación.
SECRETARÍA DE SALUD EN EL ESTADO DE TLAXCALA.
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SOCIEDAD MEXICANA DE ARQUITECTOS ESPECIALIZADOS EN SALUD.

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0. Introducción

El desarrollo de tecnologías y nuevos materiales en la fabricación de equipos para la atención médica ha generado avances importantes, ello ha determinado la producción y disponibilidad de mobiliario, equipos e instrumentos con mejores estándares de calidad y seguridad para el paciente, usuarios y personal de los establecimientos para la atención médica de pacientes ambulatorios.

En este contexto, la infraestructura y el equipamiento de dichos establecimientos debe estar en relación directa con el tipo de servicios que se ofrecen, asimismo, el personal profesional y técnico del área de la salud encargado de la operación de los mismos debe contar con los conocimientos, habilidades y destrezas necesarios para que éstos sean utilizados de manera adecuada, segura y eficiente.

Es importante destacar que la presente Norma no es un listado o catálogo de mobiliario y equipo, pero tampoco representa un instrumento limitativo para los establecimientos de atención médica, sino que se constituye en un basamento o plataforma que permite, a partir de lo mínimo, el mejoramiento gradual de los establecimientos para la atención médica de pacientes ambulatorios, a través de la incorporación y sustitución de mobiliario, equipos e instrumentos similares o equivalentes y en su caso, por tecnología superior y de punta en las diversas áreas y servicios de la medicina.

1. Objetivo

Esta Norma tiene por objeto establecer los requisitos mínimos de infraestructura y equipamiento que deben cumplir los establecimientos para la atención médica de los sectores público, social y privado que integran el Sistema Nacional de Salud, que proporcionen serviciosa pacientes ambulatorios.

2. Campo de aplicación

Esta Norma es de observancia obligatoria para todos los establecimientos para la atención médica de los sectorespúblico, social y privado que integran el Sistema Nacional de Salud, denominados o que funcionen como consultorios que proporcionen atención médica no especializada.

3. Referencias normativas

Para la correcta aplicación de esta Norma, es necesario consultar las siguientes Normas Oficiales Mexicanas o las que las sustituyan:

3.1 Norma Oficial Mexicana NOM-001-SEDE-2012, Instalaciones Eléctricas (utilización).

3.2 Norma Oficial Mexicana NOM-004-SSA3-2012, Del expediente clínico.

3.3 Norma Oficial Mexicana NOM-016-SSA3-2012, Que establece las características mínimas de infraestructura y equipamiento de hospitales y consultorios de atención médica especializada.

3.4 Norma Oficial Mexicana NOM-017-SSA3-2012, Regulación de servicios de salud. Para la práctica de la acupuntura humana y métodos relacionados.

3.5 Norma Oficial Mexicana NOM-030-SSA3-2013, Que establece las características arquitectónicas para facilitar el acceso, tránsito, uso y permanencia de las personas con discapacidad en establecimientos para la atención médica ambulatoria y hospitalaria del Sistema Nacional de Salud.

3.6 Norma Oficial Mexicana NOM-087-SEMARNAT-SSA1-2002, Protección ambientalSalud ambiental-Residuos peligrosos biológico-infecciosos-Clasificación y especificaciones de manejo.

4. Términos y definiciones

Para los efectos de esta Norma, se entenderá por:

4.2 Atención médica ambulatoria: al conjunto de servicios que se proporcionan en establecimientos para la atención médica fijos o móviles, con el fin de proteger, promover o restaurar la salud de pacientes que no requieren ser hospitalizados.

4.3 Atención médica de urgencias: a las acciones médicas que se llevan a cabo de manera inmediata, encaminadas a disminuir el riesgo de muerte y evitar el daño a órganos o funciones vitales.

4.4 Botiquín de urgencias: a los materiales indispensables para la atención de urgencias médicas.

4.5 Calidad de la atención médica: al atributo por medio del cual los servicios de salud prestados a individuos y poblaciones aumentan la probabilidad de lograr los resultados deseados en salud y son consistentes con los conocimientos profesionales actualizados; para otorgar al usuario atención médica con oportunidad, seguridad, competencia y con los medios disponibles, ofrecer el mayor beneficio con el menor riesgo.

4.6 Consultorio: a todo establecimiento para la atención médicapúblico, social o privado, independiente o ligado a un servicio hospitalario o dedicado al ejercicio profesional independiente, que tenga como propósito prestar servicios de atención médica a pacientes ambulatorios.

4.10 Consultorio de medicina general o familiar: a todo establecimiento para la atención médica que no sea de especialidad, de los sectores público, social o privado, ligado a un servicio hospitalario o dedicado al ejercicio profesional independiente, donde se realizan actividades de promoción, prevención, diagnóstico, tratamiento y rehabilitación.

4.13 Consultorio de optometría: a todo establecimiento para la atención médica de los sectores público, social o privado, ligado a un servicio hospitalario o dedicado al ejercicio profesional independiente, en donde se realizan actividades de medición de la agudeza visual a través de exámenes de refracción y prescripción de anteojos graduados.

4.15 Equipo médico: a los aparatos, accesorios e instrumental para uso específico, destinados a la atención médica, quirúrgica o a procedimientos de exploración, diagnóstico, tratamiento y rehabilitación de pacientes, así como aquellos para efectuar actividades de investigación biomédica.

4.16 Expediente clínico: al conjunto único de información y datos personales de un paciente, que se integra dentro de todo tipo de establecimiento para la atención médica, ya sea público, social o privado, el cual consta de documentos escritos, gráficos, imagenológicos, electrónicos, magnéticos, electromagnéticos, ópticos, magneto-ópticos y de cualquier otra índole, en los cuales, el personal de salud deberá hacer los registros, anotaciones, en su caso, constancias y certificaciones

correspondientes a su intervención en la atención médica del paciente, con apego a las disposiciones jurídicas aplicables.
4.17 Infraestructura física: al conjunto de áreas, servicios y locales interrelacionados para la prestación de servicios de atención médica.
4.18 Medicina preventiva: al conjunto de procedimientos y actividades de la práctica médica, encaminadas a prevenir las causas de morbilidad y disminuir los índices de mortalidad asociados a enfermedades que padecen los seres humanos.
4.19 Mobiliario: al conjunto de bienes de uso duradero, indispensables para la prestación de servicios de atención médica.
4.20 Paciente ambulatorio: a todo aquel usuario de servicios de atención médica que no necesite hospitalización.
4.21 Personal de salud: a los profesionales, técnicos y auxiliares del área de la salud, que intervienen en el proceso de atención al paciente ambulatorio.
4.22 Seguridad del Paciente: conjunto de acciones interrelacionadas que tienen como objetivo prevenir y reducir los eventos adversos, que implican un daño al paciente como resultado de la atención médica que recibe.
4.23 Urgencia: a todo problema médico-quirúrgico agudo, que ponga en peligro la vida o la pérdida de un órgano o una función y que requiera atención inmediata.
5. Disposiciones generales
Todo consultorio, a que se refiere esta Norma, debe:
5.1 Estar integrado a un hospital que tenga licencia sanitaria o en el caso de consultorios independientes fijos o no ligados a un hospital, debe presentar aviso de funcionamiento ante la autoridad correspondiente por lo menos 30 días anteriores a aquel en que se pretenden iniciar operaciones, conforme a lo dispuesto en el artículo 47, de la Ley General de Salud y demás disposiciones aplicables.
5.2. Presentar aviso de Responsable Sanitario, de acuerdo con las disposiciones aplicables.
5.5 Contar con el mobiliario que permita guardar y disponer de los expedientes clínicos en todo momento, de conformidad con lo establecido en la Norma Oficial Mexicana citada en el punto 3.2, del Capítulo de Referencias normativas, de esta Norma.
5.6 Los establecimientos que proporcionan servicios de atención médica ambulatoria de los sectores público, social y privado, en su caso, podrán solicitar la evaluación de la conformidad respecto de la presente norma, ante los organismos aprobados para dicho propósito.
5.7 De la infraestructura física
5.7.1 Contar con las facilidades arquitectónicas para efectuar las actividades médicas propias del establecimiento, de acuerdo con su denominación y oferta de servicios, además de contar con un área, sala o local apropiado para la espera de pacientes, así como la disponibilidad de sanitarios, de conformidad con lo establecido en la Norma Oficial Mexicana citada en el punto 3.3, del Capítulo de Referencias normativas, de esta Norma.
5.7.2 Establecer las condiciones de seguridad en el diseño de la infraestructura físicaque protejan integralmente los establecimientos para la atención médica, quepreserve su funcionalidad y capacidad de atención, posterior a un desastre natural o provocado, en particular en aquellas localidades donde es reconocido el riesgo latente o patente de estos fenómenos.
5.7.3 Considerar lo necesario en el diseño arquitectónico para que el acceso y salida del establecimiento puedan llevarse a cabo en forma rápida y segura, considerando las necesidades especiales de las personas con discapacidad y adultos mayores, de conformidad con lo establecido en la Norma Oficial Mexicana citada en el punto 3.5, del Capítulo de Referencias normativas, de esta Norma.
5.7.4 Asegurar el suministro de los recursos energéticos, de consumo y cumplir con las especificaciones técnicas de las instalaciones eléctricas indispensables para el funcionamiento del establecimiento para la atención médica, de conformidad con lo establecido en la Norma Oficial Mexicana citada en el punto 3.1, del Capítulo de Referencias normativas, de esta Norma.
5.7.5 Considerar en aquellos consultorios en donde se realicen actividades docentes los espacios suficientes para la permanencia del personal de salud en formación, de tal forma que no interfiera con el tránsito de personas.
6.5 El Consultorio de optometría debe:
6.5.1 Contar con espacio y mobiliario suficiente y adecuado para la atención de pacientes ambulatorios, así como con el mobiliario y equipo médico descrito en el Apéndice C Normativo, de esta Norma.
7. Concordancia con normas internacionales y mexicanas
Esta Norma no tiene concordancia con ninguna norma internacional ni mexicana.
8. Bibliografía
8.1 Norma Oficial Mexicana NOM-026-STPS-2008, Colores y señales de seguridad e higiene, e identificación de riesgos por fluidos conducidos en tuberías.

8.2 T0o Err Is Human, Building a Safer Health System. Linda T. Kohnn, Janet M. Corrian, and Molla S. Donaldson. Washington, D.C. Pág. 211. AbedisDonabedian.

9. Vigilancia

La vigilancia de la aplicación de esta Norma corresponde a la Secretaría de Salud y a los gobiernos de las entidades federativas en el ámbito de sus respectivas competencias.

10. Vigencia

Esta Norma, entrará en vigor a los 60 días naturales, contados a partir de la fecha de su publicación en el Diario Oficial de la Federación.

TRANSITORIO.- La entrada en vigor de la presente Norma deja sin efectos la Norma Oficial Mexicana NOM-005-SSA3-2010, Que establece los requisitos mínimos de infraestructura y equipamiento de establecimientos para la atención médica de pacientes ambulatorios, publicada en el Diario Oficial de la Federación el 16 de agosto de 2010.Ciudad de México, a 4 de marzo de 2020.- La Subsecretaria de Integración y Desarrollo del Sector Salud y Presidenta del Comité Consultivo Nacional de Normalización de Innovación, Desarrollo, Tecnologías e Información en Salud, **Asa Ebba Christina Laurell**.- Rúbrica.

11. Apéndices Normativos

Apéndice C Normativo

C.1 EQUIPAMIENTO PARA CONSULTORIO DE OPTOMETRÍA

C.1.1. Mobiliario

C.1.1.1 Asiento para el optometrista;

C.1.1.2 Asiento para el paciente y acompañante;

C.1.1.3 Escritorio o mesa de trabajo;

C.1.1.4 Guarda de materiales y equipo, y

C.1.1.5 Mueble para guarda de expedientes clínicos.

C.2. Equipo

C.2.1 Armazón de lentes para pruebas;

C.2.2 Cartilla de Amsler o Yanuzzi;

C.2.3Cartilla para prueba de distancia;

C.2.4Cartilla de Ishihara;

C.2.5Caja de prismas;

C.2.6Lámpara de hendidura;

C.2.7Lentes para prueba;

C.2.8Lensómetro;

C.2.9Oclusor;

C.2.10Proyector de Optotipos;

C.2.11 Sillón Oftalmológico.

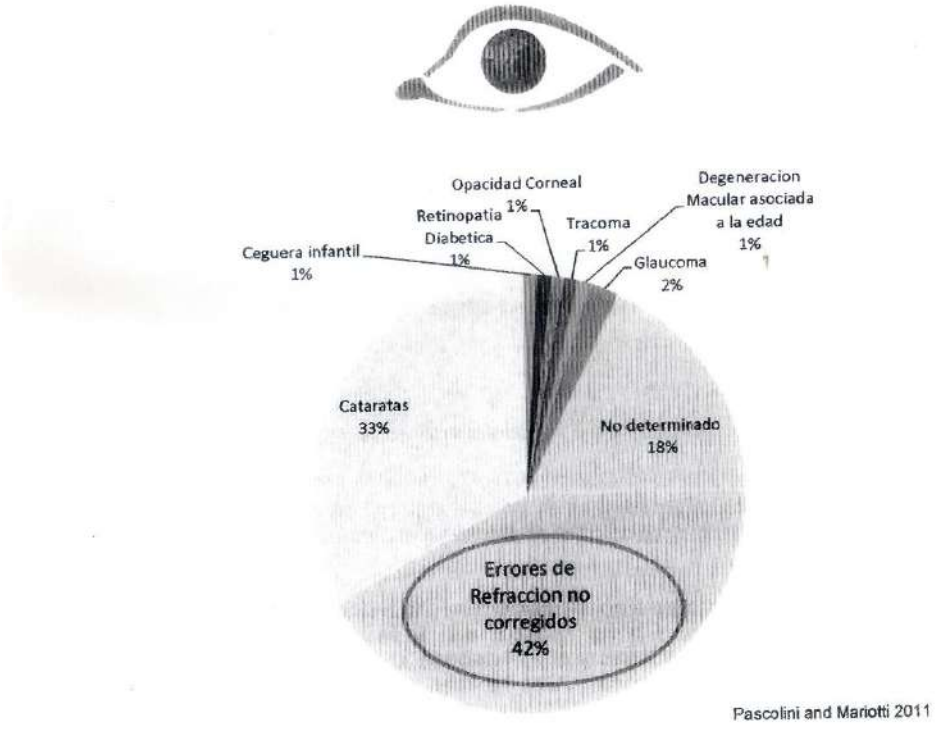
C.2.12Tonómetro, y

C.2.13Unidad de refracción con foróptero;

17.

Information on Visual Health in the World and in Mexico

Chart Provided by the World Council of Optometry



- El 80% de las discapacidades visuales en el mundo se pueden prevenir (OMS).
- En 2020 en el mundo hay 75 millones de ciegos y 200 millones de débiles visuales (OMS).

- Mil millones de personas en el mundo tienen presbicie (Instituto BrienHolden).
- Más de dos mil millones de personas requieren anteojos y no los tienen (KovinNaidoo, *New York Times*,5 de mayo 2018).

Información de optometría y la visión en México

- Número de licenciados en optometría de acuerdo con la Dirección General de Profesiones de la Secretaría de Educación Pública: 4 158 (2017).
- Número de escuelas de optometría a nivel superior: 17 (2017).
- Escuelas certificadas por el Consejo Mexicano de Acreditación en Optometría: 4 (2017): Universidad Autónoma de Aguascalientes; Instituto Politécnico Nacional, unidades Santo Tomás y Milpa Alta; Universidad Nacional Autónoma de México, campus FES Iztacala.
- La Asociación Nacional de Universidades e Instituciones de Educación Superior (ANUIES) reporta que hay 2 101 estudiantes de optometría a nivel superior (2017).
- La segunda discapacidad es la visual; cerca de 2 000 000 de personas la padecen. La primera discapacidad es la motora.
- Requieren servicios optométricos:
  - 20% de los menores de 15 años
  - 100% de los mayores de 50 años
  - 50% de la población total

I would like to thank Sandra Karina Hernandez Millan and Norma Eloisa Hernandez Millan for their support in the different tasks of documentation and supervision of the editorial work of these Memoires *(in addition to several adventures that I have told where they have been present), as well as Lizbeth Zavala Mondragon for her support in the style correction of my manuscript.*

Abraham Bromberg, July, 2020

Dr. Abraham Bromberg is one of the most outstanding optometrists in the country. He studied his bachelor's degree at the IPN and completed master's degree studies at the University of Houston and a doctorate degree in optometry at the University of California, Berkeley. He has fought for the professionalization and recognition of optometry in Mexico since the sixties. In these **Memoires** he describes the state of the profession that he found when he graduated up to its current status.

Optometry is a fundamental profession in the care of visual health of Mexicans and it has gradually been recognized not only among students, professionals and citizens in general, but also among the hierarchies of government institutions at different levels. Dr. Bromberg has worked hard for this.

Memoires of an Optometrist is a very important testimony for those interested in the visual health of our country.

memoires of an optometrist