



CODEN [USA]: IAJPBB

ISSN: 2349-7750

**INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.1243214>Available online at: <http://www.iajps.com>

Research Article

**EVALUATING THE ACADEMIC STATUS AND JOB
PROSPECT OF DENTISTRY GRADUATES IN IRAN**Abdolreza Gilavand¹ and Fatemeh Espidkar^{2*}¹Department of Education Development Center, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran²Staff of Dentistry School, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran**Abstract:**

Introduction: The increasing interest of students to dentistry field of study and the increasing admission of patients for jobs related to this field of study can clearly reflect the importance of the need for specialists in this regard. Thus, this research was conducted to evaluate the educational status and job prospect of graduates of dentistry in Iran.

Materials and Methods: This study was conducted analytically using content analysis technique.

Results: In Iran, dentistry field of study is divided into two levels of general dentistry and specialized dentistry. The total academic year for the general dentistry is 6 years. They can also study in 10 specialized fields of endodontics, oral and maxillofacial pathology, oral and maxillofacial radiology, oral and maxillofacial surgery, orthodontics, pediatric dentistry, periodontics, prosthodontics, restorative and cosmetic dentists, oral and maxillofacial diseases, oral and maxillofacial diseases diagnosis. Problems in field of dentistry in Iran include increasing number of dentists and the reduction of job opportunities for a large number of them, especially in large cities, being exposed to infectious diseases, AIDS and hepatitis, and suffering from physical diseases such as neck arthritis and spinal problems and eye problems due to high physical activity, lack of insurance coverage for dental services for patients, leading to reduction in their admission except in emergencies.

Discussion and Conclusion: In recent years, the number of students entering to dentistry schools has been increased significantly, while many facilities of these schools have remained unchanged. This problem in the future can lead to reduced quality of education and, consequently, a negative impact on oral health in the community.

Keywords: Dentistry, Academic status, Job prospect, Iran.

Corresponding author:*Fatemeh Espidkar,**

Staff of Dentistry School,

Ahvaz Jundishapur University of Medical Sciences,

Ahvaz, Iran.

Email: espidkar_f@ajums.ac.ir

QR code



Please cite this article in press: Gilavand A., Espidkar F., *Evaluating the Academic Status and Job Prospect of Dentistry Graduates in Iran*, Indo Am. J. P. Sci, 2018; 05(05).

INTRODUCTION:

In the last century, the life expectancy of people has increased and many changes have occurred in quality of life. Some of these changes, which have a positive impact on dentistry, include more emphasis on individual health, availability of antibiotics, vaccines, fluoridation, improved diets, electricity and heat, x-rays, telephones, computers and the Internet. Modern dentistry knowledge involves using silver and white restorations, fluoridation, air abrasion methods for restoration of cavities, and so on. An increase in the number of people aged above 65 and kept their teeth healthy has also affected dentistry and has drawn more attention to complex needs of older people. An increase in the number of informed and educated population in the United States has increased the number of dentistry visits to have a beautiful smile, which is completely in contrast with the reasons for visits over the past years: relief of pain and recovery of function in the next century along with an increase in the number of people kept their teeth healthy throughout their lives will increase this desire in customers.

Oral diseases have been the problem for humans since old days. The skull of Cro-Magnon people, lived 25000 years ago on Earth, shows evidence of tooth decay. The earliest recorded source of oral disease can be found in Sumerian text. Since middle ages to the beginning of the 1700s, most of dental treatments were performed by people called as barber surgeons. These versatile people extracted the teeth and performed small surgeries. They also cut the hair and made mummies. In ancient times, the Mayans were culturally rich people living in Guatemala and Honduras. They placed inlays on anterior teeth cavities and pierced the face and ear due to religious reasons. They were skillful in placing beautiful stone inlays on cavities of lower and upper anterior teeth and sometimes premolars. Undoubtedly, these inlays were placed on the living teeth, and they performed it so precisely that these inlays remained healthy even a thousand years later. The inlays were cemented to the cavity with special cements, most of which were detected by spectrography, calcium, phosphate. During the twentieth century, eight specialties were developed in dentistry, which today have their own special journals. Performing the board exams in each field was as follows: Orthodontics 1930, Oral Surgery 1946, Oral Pathology 1948, Dental prosthodontics 1948, Pediatric Dentistry 1949, Social Dentistry 1951, and Endodontics 1964. In Iran, a small group of barbers, goldsmiths and druggists were the first people who used variety of methods for tooth extraction, placing crown, making artificial teeth, or to relieve oral pain and inflammation using

very simple tools. Later, the issue of dentistry education was proposed. The pioneers of this movement were Dr. Milcharsky and Dr. Sayyah and some other dentists of that time. It should be noted that dentistry is a branch of the medicine, and the only class of medicine until 1918 was at Dar Alfonso School. In the November month of that year, the class of medicine changed to the medical school, and as a result, this school had a separate room and head, which it was located in the main courtyard of the Dar Alfonso. Over time and with the separation of the medicine school, several rooms in the courtyard of Ministry of Education were allocated to it. In 1921, when Dr. Sayah completed his studies in Europe, he returned to Iran and he got acquainted with people such as Dr. Milcharsky, Dr. Stump and Dr. Estepanian. Most of them were court physicians. At that time, on the proposal of Dr. Milcharsky and Dr. Sayah and the approval of authorities of Iran, the establishment of a dentistry school was ordered. This school was affiliated to Ali Talab School at that time. It was managed by Dr. Milcharsky, while it was later assigned to Dr. Sayah. At that time, the dentistry school had two rooms and one underground, where therapeutic, laboratory and administrative affairs were performed. The equipment and some materials included several seats with tin spittoons, four dental wheels for clinics, a wooden table, three pillars, vulcanizer, and building plaster, sieved by Mohammad Khan, the first servant of dentistry school. Theoretical and practical trainings were provided by Dr. Ashut Harutunian and Shahriar Salamat at that time. The campus was founded in 1313 in the style of European universities. In October of that year, Dr. Sayah became the head of the school and Dr. Mohsen Hasan Lak was in the charge of clinical teaching. It lasted five years, four years for practical training and one year for writing and presenting the thesis. Studying in university fields, including dentistry, is feasible after getting the high school degree and participating in university entrance and higher education institutions examinations (1). The profession of dentistry has many attractions for volunteers who want to enter to university (2-3-4). However, in the clinical setting of dentistry schools and clinics, dangerous diseases might be transmitted (5-6). Studies show that dentistry students have more favorable mental state than other students of fields of study due to their lack of employment concern after education (7). Although the importance of dentistry has been clarified in large and medium-size cities, this field has not yet been able to reflect its high value in small cities and villages, unfortunately. The increasing interest of volunteers to this field of study and the growing admission of citizens to dentistry clinics can clearly

reflect the importance and need for specialists in this field, even in comparison with other medical disciplines. Therefore, this research was conducted to evaluate the educational status and job prospect of graduates of dentistry in Iran.

MATERIALS AND METHODS:

This study was conducted analytically using content analysis technique.

RESULTS:

At current time, after completing the high school level of education, those who want study in dentistry in Iran can participate in university and higher education institutions examinations and if they are accepted and obtained the required score, they will enter this field of study. In Iran, dentistry field of study is divided into two periods: general dentistry and specialized dentistry. The total period of general dentistry is 6 years, divided into two levels of basic sciences (2 years) and a specialized course along with an internship (4 years). In the basic sciences period, students spend 2 years for learning the courses of biochemistry, theoretical physiology, practical physiology, anatomy, medical and dentistry statistics, research methodology, public health, histology, human genetics, microbiology and immunology, and after 2 years, when they completed the basic sciences, they are qualified to study at higher level (specialized dentistry). In specialized dentistry level of education, the courses such as oral and maxillofacial pathology, orthodontics, endodontics, fixed prosthesis and occlusion, mobile prostheses, periodontology, restorative dentistry and dental materials, oral and maxillofacial surgery, pediatric dentistry and oral and maxillofacial radiology are taught. During this level of education, students should pass the internship course. In this course, oral and maxillofacial diseases are introduced for them and at the end of this course, as public dentist, they diagnose and treat the disease. In addition, those who want to study at the specialized dentistry level, after obtaining the professional PhD and completing two-year manpower plan, they can participate in the entrance exam and continue their studies in one of the following specialties, if they are qualified:

Endodontics (tooth root treatment specialty)

It is a specialty in dentistry, which the basic and clinical sciences of it include diagnosis, prevention, and treatment of diseases and pulp injuries and tissue around the tooth root related to pulp. Dental pulp therapy is known as root canal, which is the most commonly used treatment by specialists in the field.

Stating that a tooth requires root canal causes fear and anxiety in many patients, and often their fears are due to false beliefs which are in this regard. Many patients, who prefer extract their tooth to be saved from its pain, become regretful later and wish they would have saved their tooth and treated it, especially those who are aware of the high costs of replacing those teeth with fixed prostheses.

Oral and maxillofacial pathology

It is a science, explores and examines the cause, characteristics, function, and effects of diseases related to jaw, mouth, and face. Working in this field involves research and diagnosis of diseases using clinical examinations, radiography, microscopy, biochemical tests, and so on.

Oral and maxillofacial radiology

It is a specialty in dentistry, which deals with the preparation and interpretation of images and information using radiant rays to diagnose and control diseases and abnormalities of the jaw and face.

Oral and maxillofacial surgery

It is a specialty in dentistry that involves diagnosis, surgery, and auxiliary treatment of diseases, functional defects and injuries, and the beauty of soft and hard tissues of the oral and maxillofacial area.

Orthodontics (orthodontic specialist)

This specialty is part of the dentistry, which involves controlling, directing and correcting mature or growing facial and oral tissues, such as situations requiring tooth displacement, correction of inappropriate jaw and dental relations, adjustment and correction of the relations between the teeth and the bones of the head and the face. The main responsibility of orthodontist is to diagnose, prevent, interpret, and treat the types of incorrect teeth coupling and changes in adjacent tissues.

Pediatric Dentistry

It is a dentistry specialty which its scope is determined by age of the person. The prevention and treatment of oral and dental diseases from infancy and childhood to puberty is the responsibility of a specialist in this field. Children in need of special health care are also being treated by a specialist. In addition, primary teeth, finger and the pacifier sucking habits, the sealant (martial blocking the tooth grooves), space maintainer, and primary tooth crown (SSC) are included in this specialty.

Periodontics (specialty of gum diseases and structures surrounding and supporting the teeth)

This specialty deals with prevention and treatment of diseases related to tooth adjunct supporting structures and maintaining the function and beauty of these structures (gum, jaw bone, etc.). Cares needed after gum surgery and tooth extraction, periodontitis, healthy gums, gingivitis as well as gum diseases are included in this specialty.

Prosthodontics (dental prosthesis specialty)

It is a branch of dentistry, which deals with restoring and maintaining the function of mouth, comfort, health, and beauty of the patient. Restoration of natural teeth or replacing lost teeth and jaw-facial tissues are within the scope of this field. This specialty is divided into two sections: fixed prosthesis and mobile prosthesis.

Restorative and cosmetic dentistry

It is a specialty in dentistry, which deals with the restoration of natural teeth and providing beauty for appearance of the teeth in an individual. Orthodontics, various dental restorations, tooth whitening, live teeth whitening, amalgam, and some misconceptions about amalgam are in the scope of this specialty.

Oral and maxillofacial diseases (diagnosis)

It is branch of dentistry, which deals with the diagnosis of abnormalities and diseases of soft and hard tissues of the mouth. These diseases may be specific to the oral cavity or part of a general disease, which its symptoms have been manifested in the mouth. Minor aphthous stomatitis, biting cheek, malodor of mouth, mouth dryness, and oral changes associated with age, fluorosis, bruxism, and oral cancer are included in this scope of dentistry. Positive aspects of dentistry include lack of overnight and compulsory work shifts, getting the PhD degree easily and easier periods of study compared to medicine and pharmacy, good income even with a general dentistry degree without specialty. The negative aspects of dentistry field of study include muscular and articular pain (due to long-term physical conditions, performing repetitive movements, placement in long-term inappropriate status, the risk of infectious and contagious diseases (can be prevented by observing the health principles such as use of masks, protective glasses and gloves), contaminated with infected blood (this is one of the dangers that is always a concern for dentists), reduced

job opportunities in major cities (the need for dentists is felt strongly in deprived areas).

The dentists can be employed in hospitals, clinics, and other treatment centers, while most dentists have personal clinics and work independently. In both of these forms, the dentist activity has a therapeutic aspect and he will have direct contact with patient. Dentists can be also employed at universities and high education centers. In this regard, having interest in academic discussions, teaching and having Ph.D. and specialized board are considered as the most important requirements. In the latter form, the activities of the dentist move away from treatment and they are performed in the form of teaching. Moreover, dentist can conduct research activities. There are some problems in the field of dentistry in the country, including:

- Uncontrolled increase in the number of dentists and reduced job opportunities for a large number of them, especially in large cities
- Being exposed to infectious diseases, AIDS and hepatitis, if they do not observe health principles.
- Physical diseases such as neck arthritis and spinal problems and eye problems due to high physical activity
- The lack of insurance coverage of dentistry services for patients, which leads to a reduction in their admission except in emergencies.

In recent years, the number of dentists has increased compared to population of the country, so that this number has reached global standard in large cities. In other words, job opportunities for dentist in these cities are very limited. However, there are good job opportunities for dentists in small cities. In general, according to studies and predictions of scientific communities outside Iran, the oral and dental health of people will be good enough by 2030 so that general dentistry will be part of general medicine. Dentistry is one of the most popular jobs in many countries of the world. According to statistics, the rate of employment and demand for this job is increasing. Therefore, dentists interested in working in other countries can find a good job opportunity and earn a good income.

DISCUSSION AND CONCLUSION:

In the coming years, it would be difficult for dentists to find job and establish personal clinic in the big

cities, because the number of dentistry schools has increased dramatically over the past years. In addition, many people completed their education in foreign countries, return to Iran with a Ph.D. degree to find job. Based on the report of the Association of Iranian Dentists, the rate of employment in the dentistry is 30%. It means that, out of 10 people with dentistry PhD degree, 3 people are unemployed. With development of oral health, the job opportunities for general dentists have decreased, and the problem of increase in the number of unemployed young dentists is not limited to Iran. Based on studies and predicts of scientific communities outside of Iran, oral health of people will be good enough by 2030, so that general dentistry will be a part of general medicine. There are other issues involved in the income and labor market of a dentist such as having skill and capability in delicately performing of works related to tooth as well as establishing good communication with patient delicate teeth. Generally, young dentists face many problems to enter the labor market. These problems vary, ranging from macro policies to the natural changes of the conditions of community. In general, the challenges faced by young dentists to enter the labor market and their causes can be summarized as follows: the challenge of increasing the number of graduated dentists, project problems, military service and commitments, buying or renting the clinic, equipment, inadequate education and insufficient support of some pioneers and professors, poor and ineffective laws, high taxes and cumbersome administrative rules, lack of coherent union, misuse of some clinics and dental equipment companies, and high expectations of young dentists. In recent years, the number of students accepted at dentistry schools has been increased significantly in Iran, while many facilities at these colleges have remained unchanged. Increasing the number of schools and increasing the number of students accepted in dentistry field of study would probably lead to reduced quality of education and leave negative effect on the oral health of community in future.

ACKNOWLEDGEMENTS:

This article is extracted from a research granted by Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran. (Numbered U- 95116 and the ethical code of IR.AJUMS.REC.1395.517)

REFERENCES:

1. Gilavand A, Gilavand S. Examining the Educational Status and Career Prospect of Nursing Graduates in Iran. *Indo American Journal of Pharmaceutical Sciences*, 2018; 05(04): 2656-2659. doi.org/10.5281/zenodo.1221369
2. Gilavand A. The Comparison of Iranian and Foreign Students' Motivations to Choose Dentistry Field of Study. *International Journal of Pediatrics*, 2016; 4 (6):1993-2010. doi: 10.22038/ijp.2016.6861
3. Gilavand A. The comparison of the tuition-paid and free tuition dental students' incentives in choosing their field of study at Ahvaz Jundishapur University of Medical Sciences, Southwest of Iran. *Annals of Tropical Medicine&Public Health*. 2017; 10(5): 1254-1259. doi: 10.4103/ATMPH.ATMPH_316_16.
4. Gilavand A, A Study of Ahvaz Jundishapur University of Medical Sciences Dental Students' Interest to Pursuing a Specialty according to their Demographic Information. *Indo American Journal of Pharmaceutical Sciences*, 2017; 4(06): 1593-1598. doi.org/10.5281/zenodo.819543.
5. Shooriabi M, Gilavand A, Emam SA. Evaluating the Awareness and Performance Ratio of Dental Assistants Working In Dentistry Centers of the City of Ahvaz in Southwest Iran, about Infection Control. *Indo American Journal of Pharmaceutical Sciences*. 2017; 4(9): 2959-2967. doi.org/10.5281/zenodo.892396
6. Gilavand A, Shooriabi M, Malakootian M. Investigating the Frequency of Occupational Exposure in Dentistry Students of Ahvaz Jundishapur University of Medical Sciences in Southwest of Iran. *Asian Journal of Pharmaceutical and Clinical Research*, 2018; 11(2): 1637-1642. 297-299. doi.org/10.22159/ajpcr.2018.v11i2.23191
7. Gilavand A, Shooriabi M. Investigating the Relationship between Mental Health and Academic Achievement of Dental Students of Ahvaz Jundishapur University of Medical Sciences. *International Journal of Medical Research & Health Sciences*. 2016; 5(7S): 328-333.