

New Educational Requirements for The Training of Dentists

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Abstract

The new demands of the professional labor market for dentists mean that the educational processes of these professionals are more carefully and demanding, as well as more closely monitored and supervised internally and externally by political and educational authorities. Therefore, evaluations and curricular restructuring are becoming increasingly necessary and timely to identify, propose, and implement strategies and actions to address these challenges and thus be able to offer students better educational conditions and job opportunities when they enter the labor market. Failure to do so will gradually condemn schools to disrepute and diminished social acceptance of their graduates. The quality of their educational process, the competitiveness of their graduates, and the possibility of being eligible to receive internal and external financial support will determine the need for their mandatory or voluntary transformation.

Keywords: requirements; transformation; quality; competitiveness

Introduction

Education is a dimension that is affected and influenced every day by more variables and factors both internal and external, in that sense the educational field of dentistry is no exception, because like all disciplines (undergraduate and graduate), day by day it has more and more requirements that graduates must meet in order to be successful professionally, economically and socially; In that sense it is essential that each of these educational institutions (schools) stop along the way to "look" at the future of the profession and from there make a thoughtful analysis of what has been done and is being done to evaluate the strengths, opportunities, weaknesses and threats (SWOT) and from there propose actions to be able to face this situation in the best circumstances and thereby give their students better conditions and opportunities for career success.

For this reason, knowing and understanding the past of dental schools and their educational processes helps uncover and unravel the SWOT analysis. From this perspective, we can understand the characteristics that make the dental profession a unique profession, one that, since its origins, has required innovative elements for the training of its students that are currently considered part of educational modernity. It is important to reflect on and analyze its historical, social, and curricular development and understand why this profession has established transformative and technological elements as central axes of teaching and learning in almost all the curricula of the diverse and diverse dental schools, which have allowed it to historically build its identity as a specialized profession within the medical field.

Medical work, within which dentistry fits perfectly, is determined by the way society perceives the dentist and his professional work, this perception is a dynamic concept generated by the continuous changes that it undergoes as a result of the evolution and transformation of social culture (Berguer and Luckmann, 2003), because we exist in a cosmos of symbols, meanings and interpretations, that is, the production and perception that is socially made of these contexts make it possible to understand the current reality that is lived, the past that was lived and can be projected with it towards what is to come in the future. Reality that, despite being shared directly or indirectly at the time of social interaction within the process of socialization, is constantly modified by the subjects themselves throughout their history and as part of their life story (Piñero Ramírez, 2008).

Under this logic, to carry out any transformation and rethinking in dental education, it is necessary to understand the cultural components of the profession, as well as the variations it has undergone throughout its history. Knowing the origin and evolution of scientific dogmas and paradigms allows us to understand them, as well as assess the consequences and impact they have had on the fields of health, disease, society, science, academia, school, and consequently on individual and collective culture. The terms and concepts that are handled and operated in the professional slang that revolves around dental practice and that give it part of its characteristic seal (profession, health, disease, cure, medicine, success, failure, wealth, economy, vocation, identity, dentist, stomatologist, dentist, elitism, prevention, rehabilitation, well-being,

iatrogenesis, caries, extraction, endodontics, etc.) can only be understood and reproduced with authority by being part of this guild.

Schools that have been caught up in this situation of analysis and reflection are, as a consequence, required to undergo curricular rethinking in order to advance and respond with actions to achieve the new required dental education goals. This is one of the central points in the path to generating curricular transformations in schools, but generally and paradoxically, the processes of institutionalization and legitimization have acted as the main obstacles to this change. The power of vested social, political, and economic interests often hinders these rethinking and very clearly and strongly influences the concept and method of teaching and teaching dental practice from outside the schools.

Another barrier to the change of educational paradigm is the commercial-professional domain which since it manifested in this profession the technological development has established the *modus operandi* in the prevailing clinical practices in this discipline, focusing the criticisms and isolating the profession towards the points of view of commercial interest and reorienting the social-professional relations towards an improvement of the care of the health with a stereotyped vision, this situation has influenced so that the medical-dental system is not so committed in the disinterested pursuit of the knowledge and the application of that knowledge to the clinical practice, but rather a significant part of it is committed in the defense of special interests (Beltrán, 2016).

Explanation

Today dentistry in Mexico celebrates more than 120 years and during that time the opening of many dental schools has been promoted, with training and a professional profile supposedly in accordance with the health needs of the society of each historical moment, the reality is not like that because the medical-dental service requested by each patient will depend on their economy, education, culture and the commercial interests of that moment, for example, in many states of our country a mutilating practice persists and is oriented towards the care and reconstruction of the consequences of oral pathologies, in which the clinical service models within the same schools are directed more towards the care of the disease and there are few actions oriented towards prevention, however there are programs in most educational institutions that are oriented towards prevention and health promotion, but this activity is very little attended to because it is little requested socially and consequently little promoted from the subjective and objective level.

This situation invites us to reflect on today's educational models and on the professional profiles of the human resources that operate and direct these educational and service models, because while it is true that today oral diseases continue to be highly prevalent and incidence in the population (Lira Rivera, 2019), it is also true that these indicators persist from previous decades and have not been able to significantly impact them, which is why it is important to identify the link between educational models, professional work models and social, economic and institutional demands. It is important to comment on the discursive importance that higher education must respond to the social needs of each country, as well as to international educational policies. Although it is true that education is recognized as a means to achieve the development of countries, then it is logical to prepare dentists under the scenarios that mark the national reality. Under this orientation, it will be possible to generate human resources that graduate and that are congruent with the national environment of each state.

For this reason, it will always be important to analyze the real and hidden curricular dimension in order to determine the need to propose curricular analysis and evaluations that are reflected in the rethinking of the study plans that ultimately allow the training of versatile human resources that respond to the innumerable demands of a society and labor market, as well as the introduction of new educational strategies that promote high quality and professional competitiveness in the student and the graduate. In this case, it is important to point out as one of the most important factors the educational policy that points out the need to face the challenge of moving from rigid educational and service models to more flexible models, giving a new curricular meaning to the different own and external interests of higher education.

In this sense, the new professional competencies required for the dental field acquire great importance because they promote a closer connection between theory and practice, a situation that, as already mentioned, is fundamental in each and every one of the curricula that have been developed throughout the history of human resource training in this profession. The history that dental education has had in society has led it to be conceptualized linearly, historically, socially and economically, for this reason the political and educational authorities have reoriented their implicit and explicit university policies of coercion, conviction, reward, punishment, recognition, duties and obligations mainly towards what is known as quality higher education because this concept (quality) is the main reference of the educational path where the results of educational financing can be seen, for this reason they have promoted the processes of certification and accreditation by disciplinary bodies external to the educational institution to pressure from them the assurance of the educational quality of the academic program or programs offered by the evaluated institution by monitoring, supervising, sanctioning or rewarding it and as a consequence of this there is no other alternative but to follow the signs and recommendations issued by these evaluating bodies at the end of the verification visits regarding the academic staff, the students, the curriculum, learning, the integral formation of the student, support services for learning, linkage and extension, research, infrastructure and equipment, management and internal and external financing.

Likewise, the educator, being a fundamental part of dental education, requires training with the new teaching model that meets the demands of new educational and labor policies. The teacher can no longer be isolated from what happens in the world; the classroom, previously closed to the outside world, must now be an open space for learning. The teacher must become an organizer, facilitator, and learner, since he is not the sole possessor of absolute knowledge. Education is something that can be acquired and shared with a certain independence, but the process of socialization with other social subjects with more knowledge and experience is required to enhance knowledge, knowledge, and therefore professional training. These conditions are part of the endless number of variables that together determine and define the type of education practiced in each society and school (Rivadeneira, E.; Silva Bustillos, R., 2015). However, how many different ways of teaching and learning are there? The previous question also raises the question of how to be a teacher in a dental school in the 21st century, in these uncertain, volatile, complicated, and critical times.

All dental educators require commitment and the ability to adapt to the new demands of the profession. Historically, many of them have experienced firsthand the changes that have occurred in politics and

society, reflected in the education they provide. The economic, political, and social circumstances that characterize the current situation in each country encourage the development of new educational strategies by higher education institutions, in order to respond to the demands of a changing society and an increasingly demanding and competitive labor market. The globalization of the economy, the market, and careers has led to competition in the field of education that has impacted all professions, giving rise to profound changes in professional training processes. This is an attempt to respond to the demands currently posed by the world of work and society, in order to work towards the professional training of competitive graduates at the national and international levels.

Over the last decade, many dental schools have focused on achieving and maintaining quality and continually updating their curricula. For its part, the State has implemented evaluation policies to differentiate institutions and their members through institutional accreditation and professional certification. This process has been used over time as a means to promote higher levels of quality (which is not always the case). The objective of accreditation is to verify that all academic programs meet acceptable levels of quality of operation, in light of institutional objectives and their admission, progress, and graduation profiles. At the same time, professional certification has been seen as a mechanism to guarantee that training corresponds to the general profiles established by the labor market for practicing the profession, especially considering that the policies for allocating extraordinary resources to Higher Education Institutions are linked to these processes.

In this regard, within dental schools, educators must be competent and competitive professionals in all their capacities, both as teachers and as dental professionals, and capable of fulfilling any substantive and adjective role within the educational system. In this regard, the professionalization of teachers in these schools is relatively new, and given the disadvantage posed to higher education by the fact that most educators lack teaching training that would adequately enrich their profile based on the discipline they teach, this weakness and need have been discussed in depth in recent years in order to understand the social role they must fulfill, viewing this situation as a great opportunity for improvement. As time passes, this internal and external demand for professionalization has increased and has led most educators to prepare for the new educational processes that have been emerging in the 21st century.

Living in the era of technological, digital and globalized knowledge implies and determines being in contact with everything and everyone, this situation has its cost in time and money invested to achieve greater and better professional competence as a teacher and that positively impacts the professional who graduates. One of the greatest pressures in dental education is what is generating precisely the globalization process, this situation is reflected in the restructuring of the social, educational and labor world by economically and politically reconfigured countries and regions. With the reorganization of economic and political powers, new economic markets have emerged centered on capitalist models, with the predominance of the free market economy and with distinction for those based on advanced, sophisticated, competitive and highly productive technology, causing irrelevance, modifications and new parameters to establish the hierarchical levels of employment, underemployment and unemployment (Wit, H., 2011).

On the other hand, new demands and cutting-edge knowledge, policies, creativity, skills, and competencies are emerging for dental schools and

their graduates, which until then were little in demand in the labor market; new forms of communication are developing with the use of computers and the WWW (World Wide Web) or cyberspace networks; improvements in transportation and the relative reduction in costs have facilitated the acquisition and movement of technological products; and the increase in human mobility, facilitating integration and communication across the planet, has resulted in a hyperactive planetary life.

As a result of these changes, doubts can be observed among society, educational authorities, and students regarding the usefulness of the traditional educational process for the success of the professional and social life of dentistry graduates. This is often due to the limited updating and efficiency of schools in preparing their graduates more efficiently and effectively to meet current social, technological, and labor market demands. At the same time, educational and social authorities have increasingly demanded greater efficiency in the use of physical, economic, and human resources, greater equity in the treatment of different socioeconomic groups, higher quality educational services, and a greater capacity to respond to the needs of the productive sector and society in general. For this reason, the government, parents of students, employers and society in general have pressured dental schools for better quality of teaching, greater relevance between the content provided and its future relevance in the professional market and in social life, achieving with this, gradually these educational institutions are looking for ways, strategies, procedures and actions to respond to these demands and enter the change, having among other things to increase the cost of registrations, services and school fees to achieve the acquisition, use and maintenance of modern technology in classrooms, clinics, laboratories and libraries, all this observing and taking care of the transparency that implies the presentation of clear accounts of the economic resources entered and used by the institution.

Just as many tangible and intangible educational assets suffer from obsolescence, impertinence, and anachronism, requiring constant updating, this situation has in turn led to the emergence of business education (diplomas, postgraduate programs, courses, workshops, seminars, etc.), to which only the wealthy will have access. This situation, in turn, becomes another differentiating and segregating factor in the demand for higher education in dentistry. The new professional demands in the field of dentistry, faced with a context of changes that pressure university institutions, can be seen in the curricular restructuring processes and in the transformations that universities are making to address the changes necessary to respond to the new century. Special aspects and characteristics of the dental university organization, such as ambiguous objectives focused exclusively on serving undemanding clients, problematic technologies, operation of products that are difficult to measure, coexistence with complex decision-making processes and forms of teaching, research, extension and management that mix bureaucratic, political and collegial characteristics, added to the vulnerability of the external environment, identify dental education as a complex and paradoxical organization, which in many cases is overwhelmed by the new demands that the market and society as a whole mark in this new century, that is, in many cases they turn it into a profession of labor uncertainty.

The university dental organization is characterized in its essence by the qualitative nature of its work, its departmentalized and fragmented structure in different areas of disciplinary knowledge, a shared decision-

making power based on academies or collegiate bodies and a highly questioned university autonomy, an individualistic and selfish work, an academic freedom of the chair enjoyed by the teacher as a professional and main agent of production and re-production that is increasingly misunderstood, all this baggage of activities and actions draws the profile of an increasingly complicated organization defined by an anarchy organized by a few, all this is what originates and substantially prevents fundamental changes to counteract the current high rate of unemployment in the dental field.

For this reason, dental schools and their training processes must continually transform and evolve in order to respond to the demands of a changing society, a global revolution and an increasingly demanding and competitive labor market, where the demand and need to create, recreate and transmit knowledge with quality and the responsibility of offering relevant professionals is increasingly marked, therefore it must be recognized that many of the academic dentistry programs have entered a process of obsolescence, both in their processes and their contents in relation to the labor market and social needs, causing great uncertainty among graduates and their parents. In this context, if it was considered that in the 20th century there was a transition towards a dental education with a productivist perspective that places employment as the central point of the educational goal, training the graduate for mainly technical work as the axis of most of the dental educational debate of that century that gradually mark the path to follow, it is unlikely that we will see in the immediate future curricular transformations that promote complex disciplinary thinking as proposed at the time by the French sociologist Edgar Morin, "... subjects who are permanently between the aspiration to an undivided, unreduced knowledge and the identification of the unfinished or incomplete ..." (Juárez, 2012).

Currently, in the current century, rather than passively training for employment, we must focus on training for employability by developing in students and graduates the skills and motivation to find and keep work. We must primarily consider active strategies for advancing professionally and in the workplace, and for adapting to changes throughout their professional lives with flexible knowledge, skills, and abilities that enable them to respond responsibly, creatively, innovatively, with a critical vision, and with knowledge to a labor market that is in a constant state of change. Likewise, technological development and the globalization of markets have transformed the functional rules of the labor market, imposing demands for greater flexibility and qualifications in exchange for fewer guarantees of security and stability.

For graduates, career prospects are becoming increasingly uncertain; uncertainty has become widespread, and the future is unpredictable and uncertain. In order to increase individual employment opportunities, the demand for professional qualifications for graduates has increased, and paradoxically, enrollment in dentistry has risen. This strange situation exerts an imminent influence on the conditions and opportunities of graduates and consequently directly and indirectly affects the curricula of dental degree programs. This does not generate a truly positive impact on reducing oral morbidity indicators and, on the contrary, makes the training of human resources more chaotic.

One of the most important points of analysis in the educational change process has to do, as already stated, with the flexibility of the training process itself. In that sense, we will say that flexibility has long appeared in all the debates on education. Making dental education flexible means making it more open, giving it internal options and in relation to those

that the world of work is demanding. In that sense, flexibility is manifested in the opening and restructuring of the traditional University Missions. It is now accepted that current and future society are open and therefore flexible, not rigid and closed-in, which is why it requires versatile, multi-skilled, competitive, creative, innovative, critical, sensitive professionals who are eager for new cutting-edge knowledge (Ocampo Gómez, 2021).

Closing

Given the new challenges facing society and the rapid, exponential changes that are rapidly rendering knowledge obsolete, major developments in science and technology, new concepts of teaching and learning, the application of new methods and systems, and the changing needs of the environment, among other factors, it is necessary to generate ongoing processes of educational transformation. This in turn requires curriculum models that are open to change in order to respond to the demands placed on educational institutions by the world of work, ensuring that the curriculum is not decontextualized and obsolete, thus ensuring its social and scientific relevance.

The training of modern dentists is oriented toward disciplinary specialization, toward the training of professional technocrats, without necessarily guaranteeing success. The new educational paradigm of current dentistry must consider training agents for change, for adaptation to a rapidly changing society, not for segmented patient care or for making it elitist, more expensive, and less accessible to the general population. Therefore, dentistry must be designed based on more open and flexible curricula, where students can choose their subjects, maintaining what is common or necessary for training in their chosen profession while integrating other more complex and innovative content. Schools must comprehensively and complementarily consider students' preferences and society's demands in the cognitive, affective, technological, political, social, economic, cultural, and ethical spheres.

Likewise, the new teaching profile of dental education must be built with a multi-skilled teaching and dental professional in mind, capable of connecting different dimensions in their teaching processes with a globalizing intention and encompassing all the phenomena that arise, but considering each of their particularities. The society of the 21st century demands that the dental student acquire intellectual skills built through complexity, which allow them to continue learning on their own and build complex multi and interdisciplinary thinking, allowing the student and graduate to interconnect different dimensions of reality, develop different and diverse strategies to understand and confront problems with a reflective vision, work in self-directed learning, manage well the processes and skills through which knowledge is produced, their knowledge, thinking that allows them to become familiar with the use of new technologies, acquire social skills and abilities typical of modern citizenship and prepare for group work and group management. Likewise, flexible society expects these professionals to master basic research skills.

On the other hand, curricular flexibility in the dental education world means that students and graduates must adapt easily, quickly, and efficiently to different types of knowledge and social needs, to new forms of qualifications, to relationships between employers and professionals, and to a more flexible way of organizing the academic, school, and work worlds. Today, the generalized procedures of disciplinary education, organized around specific competencies for specific services, which are only useful in very exclusive treatments, must be reconsidered. Therefore,

from this new perspective, they have become inappropriate. The idea of lifelong learning is part of the framework of education based on recognition. Currently, we must consider the training of dentists who are trained and qualified to adequately attend to and resolve situations within their professional practice, in addition to being able to offer a professional, committed, accurate, and competitive service.

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