



## THE COMPETENCES OF THE STOMATOLOGY STUDENTS ON THE DENTAL CARE OF THE ONCOLOGICAL PATIENT OF HEAD AND NECK IN THE PUEBLA CITY (México)

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### ABSTRACT

The permanent changes of knowledge and the diversity of paradigms, demand competent professionals, therefore, Universities are responsible for acquiring the commitment to remain in a constant curricular update, with flexibility, total quality, educational reengineering, strategic curricular planning, institutional analysis, etc. Mastery of this knowledge makes you able to act effectively in professional situations, in order that their graduates meet expectations according to the needs required by society.

As in the case of the health area, where the increase in the incidence of patients with cancer is inevitable unavoidable as well as, oral sequelae suffered by people undergoing radiotherapeutic treatment at head and neck level, the undergraduate students in Stomatology must finalize already with skills and competencies to give correct attention to this population, medical indication is that all cancer patients should go to dental checkup before, during being subjected to treatment by radiotherapy, which implies, an increase in demand in the dental practice

**KEYWORDS** : Function of the University, Skills and competences, Head and neck cancer.

### INTRODUCTION

One of the many functions of the Universities to generate a significant impact is to train professionals with knowledge, skills, competences, critical thinking attitudes and high value judgments that allow them to respond to the demand of society. As noted by Diaz Barriga, F. (2010), to mention that: "...The curriculum is not considered static, which is based on needs that can change, what it makes necessary to update the curriculum of agreement to the commanding needs and advances of the discipline to cover the needs of the needs of society with the graduates of the various higher education programs."(p.51)

Meza, J. (2012) mentioned that; "...Educational systems have to be in constant movement and change, that is why they see the need to build, rebuild or leave the curriculum open. At present a curriculum based on competitions appears, in the different types of knowledge such as: knowing, knowing how to do and knowing how to be; that in other words are translated into knowledge, skills or abilities, as well as the attitudinal aspect".(p.13)

Likewise, R. Schmal and A. Ruiz-Tagle (2007) make a review where they cite various authors and mention what a competence means for each of them: "...The competences have their origin in the need to promote an education capable of satisfying the requirements of an increasingly demanding work reality, the development of this approach has gone beyond, including aspects that are not only related to the business world. In consequence, the concept of competence integrates knowledge, potential, abilities, skills, practices and actions of various kinds, (personal, collective, affective, social, cultural), in different learning and performance scenarios. So, it is possible to affirm that the competition is the putting in action of the knowledge, what implies that a curricular design oriented to the formation of competences must be guided substantially by strategies that highlight the relevance and pertinence of the contents that are learned".(pp. 149-150)

For the disease of the cancer of head and neck, which has been increased in the last decades worldwide, and represents one of the main oncological problems due to oral sequelae in their treatments, as in the case of radiotherapy, however, the effects of radiation not only affect the malignant cells, but it is also absorbed by healthy oral tissues, particularly by those with greater capacity for cell renewal.

Therefore the radiotherapy, it is a planned treatment where the dose, chronogram and location are taken into account, but the pre-radiation dental evaluation must be included, for the preexistence of oral diseases during the development of the treatment. A protocol for dental care must be established, by dentists to minimize the long-term consequences and provide them with a better quality of life during the course of treatment.

Therefore, the students of the undergraduate programs in Stomatology in Puebla, they must have a discharge profile that includes the skills and competences to solve the oral problems that affect this oncological population. To prevent, minimize and control all sequelae, that will provide a quality of life to the patient during these phases of his oncological treatment as mentioned by González, W. (2010) "...The participation of the Stomatologist is important before, during and after radiotherapy, focused on the prevention of those late complications that can have severe consequences for the quality of life of the patient, So it is necessary dental treatments in patients with oral cancer after radiotherapy, it is the important reason for a dentist to be involved in the treatment of the cancer patient before, during and after they are irradiated. Studies have been reported with patients examined before radiotherapy who show that 82% of patients are in need of extractions, and 93% of them have moderate to severe periodontal disease. Extractions and periodontal treatment prior to radiotherapy prevent the development of radiation caries, progression of periodontal disease and osteoradionecrosis".

In this way, it is supported why it is necessary that the profile of the graduates of the different undergraduate programs of the Stomatology Faculties of the Puebla City, within your training, generate the competences and skills for the attention and oral care of this group of patients that is increasing. For it, the construction of a critical discussion space is needed, reflection and agreements that those responsible for the new educational projects such as updating programs, that from it, Values and attitudes that should prevail in Stomatology students are strengthened and graduate with the profile that demand right now the area of health, especially the oncological population of head and neck.

### OBJETIVE

Demonstrate the effectiveness of current programs in the curricula

of the undergraduate programs in Stomatology of the Puebla City, that provides skills and abilities in the students so that when they graduate, have a professional profile that provides adequate dental care to the oncological head and neck patient who is undergoing radiotherapy, in a preventive and corrective way that will allow controlling the oral sequelae.

**MATERIALS AND METHODS**

He measuring instrument validated since 2014 by the Academy of Rehabilitation Faculty of Dentistry of the Autonomous University of Puebla was used, it is consisting of 20 closed questions, that generate the information of the respondents to measure their knowledge, skills and competences in providing preventive and corrective treatments to the oncological patient of head and neck that has attended by radiotherapy in its different phases. The design, it gives the following values for each answer as described below; (Excellent =10, Very Good =9, Good =8, bad =5), in order to obtain a qualitative and quantitative evaluation. They were randomly selected 125 with 1 and 2 years of graduation from the universities of Stomatology of the city of Puebla. That way they were evaluated their skills and competencies regarding how to establish diagnoses and different treatment plans that can be made to the oncological population of the head and neck that are going to receive or already receive radiotherapy.

**RESULTS**

Of 125 graduates of the Universities of the Puebla City, 2,500 responses were generated, which gave the following results; As the comparison of quantitative data from four groups (Ex, VG, G, W) test Analysis of Variance (ANOVA) it was applied. The results of the surveys are shown in percentages in Table 1, Deviation E and the Average Trend Measures in Table 2, and Table 3 Analysis of ANOVA Variance

**Table 1, Results in percentages ANOVA**

125 graduates	EX	VG	G	W
2,500 answers	22	234	931	1313
%	.88%	9.36%	37.24%	52.52%

Source: Estrada, B. (2017)

**Table 2 Deviation E and the Average ANOVA**

	Media	Deviation E
Ex=10	1.1	1.54
VG=9	11.7	5.01
G=8	46.55	8.27
W=5	65.65	12.41

Source: Estrada, B (2017)

**Table 3, Analysis of ANOVA Variance**

Origin of variation	Sum of squares	Degrees of freedom	Average of squares	F	Probabil ity	Critical Value of F
Entre los grupos (E, VG, G, B)	54173.5	3	18057.8333	284.0516	3.39	2.724944
Between groups	4831.5	76	63.5723684			
Total	59005	79				

Source: Estrada, B (2017)

Is greater the value of  $F = 284.0516$  compared to the critical value of  $F = 2.724944$ . The value of  $P = 3.39$  what concerns that if there is a significant difference between graduates general practice they have no skills on treatments of cancer patients head and Radiated neck.

Most of the alumni agreed when expressing verbally, that "It is unfortunate that they graduated with very little training and knowledge for the oral care of the oncological patient and that in

many occasions they have had to refer these patients to various specialties, do not have the training on the subject, and there is a fear of performing a treatment that expose the patient's life, since his general state of health is very vulnerable and immunosuppressed"

The results obtained demonstrate the need to strengthen programs to generate the competencies that respond, both to professional knowledge based on the particularities of the oncology population, and to the development of the skills and abilities inherent to it; thus, the Stomatology graduate can have the precise knowledge, attitudes, values and competencies to preserve the oral health of the oncological head and neck patient treated with radiotherapy, both preventively and corrective, in an appropriate manner.

**CONCLUSIONS**

It shows the feasible correlation and the importance of updating the programs in the curricula of the undergraduate degrees in Stomatology of the different Universities of the Puebla City, so that the students to graduate have the knowledge and precise competences to provide the protocols of treatments in each one of the stages of the evolution of the disease, since it is one of so many functions that the universities must fulfill.

It is necessary to generate and favor the curricular conditions in the faculties of Stomatology of the different Universities of the Puebla City, which allow to create, produce and disseminate knowledge, both scientific and humanistic; with the purpose of forming a permanent way to the students and that they can develop a task that allows them to contribute to the improvement of the quality of life, within the framework of a fair and progressive society where they feel that the skills and competences acquired in the walking in the programs of the degree in Stomatology, it will allow them to grant cutting-edge preventive and corrective oral treatments to the oncological population of the head and neck that has undergone radiotherapy.

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