THE TEACHING OF DENTISTRY IN THE 21ST CENTURY: WHERE ARE WE HEADING TO?

JOSÉ PABLO TISI LANCHARES[1]

ABSTRACT. *The 21st century has brought swift changes in organizations, due in part to current exponential technological advances. The academic programs in health are not an exception and the teaching in these areas has also been adapting to such changes. However, dentistry is rooted in medicine, whose systematic format stems from Ancient Greece. Empathy is a key element not only for patient-physician relationships but also for treatment success, so our dental teaching must pay attention to this element, which is often neglected because of our current "high-performance culture".*

Keywords: *education, teaching, health, empathy, dentistry*

Tisi-Lanchares JP. The teaching of dentistry in the 21st century: Where are we heading to? Rev Fac Odontol Univ Antioq. 2018; 29 (2): pp-pp. DOI: http://dx.doi.org/10.17533/udea.rfo.v29n2a12

SUBMITTED: AUGUST 1/2017 – ACCEPTED: NOVEMBER 7/2017

[1] Dental surgeon. Assistant Professor, School of Health Sciences - Dental Program, Universidad Arturo Prat, Iquique

Dentistry in Chile and its training institutions, namely dental schools, has recently evolved as the world has become globalized and technologies undergo exponential development.[1] The advances in clinical simulation and treatments for various oral and maxillofacial conditions, and the increasingly accurate new diagnostic tools, have been relevant points of attention in the design of the new dental curricula.[2]

Our profession started off in Chile thanks to Germán Valenzuela Basterrica, a prominent doctor who managed to unravel a crime that at the time had a great impact on Chile-Germany relations, thanks to his stomatognathic studies in Paris and to the dental records of both victim and perpetrator. This paved the way for the first dental school in Santiago de Chile in the early 20th century.[3] The study of medicine and dentistry has fascinated many people, including myself, mostly motivated by a desire to help *the patient*—understood from a philosophical perspective not as one who has patience or buys a health service, but as a human being "suffering from a disease"—and to put into practice what otherwise is known as the Hippocratic Oath.

As I have made progress in my incipient knowledge and my teaching experience, I have realized that during the preparation of our future colleagues we base our actions on what the curriculum establishes, though trying to transcend in some extent the lessons thought by our own professors in the past. In our daily teaching practice, some of us wonder and assess whether our students' learning outcomes are acceptable, whether this learning fits the community's needs, or the information we spread is consistent with up-to-date and quality evidence.[4] However, at some point in this journey of teaching we perceive a subtle distancing from what once was the reason for our future being: the intention of helping patients understanding their condition beyond the pathological technicalities. In other words, we gradually lose the touch of empathy.

Analyzing this concept very generally, we must differentiate empathy from sympathy, as the former is related to reasoning, while sympathy is related to feelings in a more emotional domain. However, both concepts are interrelated and are part of a learning process. This means that empathy is formed from a neurobiological learning sequence.[5] Then, if empathy can be trained, the questions are: in what we try to teach and pass on to future generations, how concerned are we with the endurance of this empathy—the one that motivated us to choose our profession in the first place and is therefore crucial for success in our treatments? How relevant we currently consider this ability to comprehend the suffering of others during the dental formation? Are we dissociating science from the humanities?[6] The perception of the learning environment in dentistry tends to decrease as students progress in their studies—a common

trend in other countries, though with nuances among regions—. There are differences between the perception during the first stages of dental education and the time when students start seeing their first patients, often overloaded with academic duties, leading them to change their educational perspective to "I must fulfil my goals so that I won't fail this course".[7-9] Probably then, the patient will no longer be seen as a person who suffers, but also as a number of procedures that must be met. Probably many of us have thought that the successful student is one who achieves more goals and better grades, instead of that who better internalizes science and the humanities.

An interesting study in full edentulous patients was carried out in 2010 in a public health service in Santiago de Chile. The study uses a textual approach to assess the way edentulous patients live their experience, obtaining answers like: "I felt really bad when I started losing my teeth [general opinion], because I felt shy and hung up in many ways; I stayed home all the time with my kids only because, can you imagine? With no teeth!; I would covered my mouth to talk to other people"; "I felt bad when I was losing my teeth, I would avoid laughing not to show my teeth and I had a serious look all the time; I was really depressed, I even had to go to the psychologist. A mouth with no teeth looks ugly".[10] In my opinion, the study has an enormous added value, which may go unnoticed for professionals seeking updates in technical knowledge: it shows us the reality of dental patients—in this case older people with difficulties in accessing healthcare due to their socioeconomic conditions.

Now, if we take this study related to prosthodontics and public health as an example, a series of questions arises: If we evaluate an undergraduate student's performance based on the rehabilitation of those patients, would it be necessary to consider that empathy is essential to achieve effective treatment? Can an empathetic student, in the process of becoming an empathetic professional, contribute to improve these patients' quality of life with the treatment itself? Can we gradually evaluate the student's degree of empathy, so that this quality is not decreased by the time he or she sees a patient?

The answer is: Yes. As health professionals training others, we must look out for this facet of the teaching-learning process. There are tools to measure empathy objectively so that we can appropriately monitor and intervene this dimension of the hidden curriculum.[11] This way, the student will no longer have a "comprehensive" or "integrated" training, restricted to mere therapeutic clinical rationing, but a deeper perception in a broader psychosocial spectrum. The entire curriculum should materialize this formative element—empathy—from the hidden curriculum to the formal one,[12] training and maintain

empathy throughout the dental training process to avoid losing our medical roots in a fast-paced 21st century focused on performance and productivity.[13]

I will follow that system of regimen which, according to my ability and judgement, I consider for the benefit of my patients, and abstain from whatever is deleterious and mischievous.

Hippocratic Oath excerpt

ACKNOWLEDGMENTS

The author expresses his gratitude to the Vice Presidency for Research, Innovation and Advanced Studies for its support in research, as well as to his work team, his support team, his own professors and students, who contribute to his human and professional development in a daily basis.

CONFLICT OF INTEREST

The author declares that he has no conflicts of interest.

CORRESPONDING AUTHOR

José Pablo Tisi Lanchares
Universidad Arturo Prat
(+569) 56 688 976
j.pablo.tisi@gmail.com, jtisi@unap.cl
Avenida Arturo Prat 2120
Iquique, Chile

REFERENCES

1. Nicolescu R. The influences of globalization on educational environment and adjustment of national systems. Procedia Soc Behav Sci. 2015; 180: 72-79. DOI: https://doi.org/10.1016/j.sbspro.2015.02.088

2. Dávila-Cervantes A. Simulación en educación médica. Inv Ed Med. 2014; 3(10): 100-105

3. Ramírez-Skinner H. ¿Y antes de Fauchard qué? La odontología en las cavernas, los templos, los hospitales y las universidades. Rev Clin Periodoncia Implantol Rehabil Oral. 2012; 5(1): 29-39. DOI: http://dx.doi.org/10.4067/S0719-01072012000100006

4. McHarg J, Kay E. Designing a dental curriculum for the twenty-first century. Br Dent J. 2009; 207(10): 493-497. DOI: https://doi.org/10.1038/sj.bdj.2009.1011

5. Keskin SC. From what isn't empathy to empathic learning process. Procedia Soc Behav Sci. 2014; 116: 4932-4938. DOI: https://doi.org/10.1016/j.sbspro.2014.01.1052

6. Pedersen R. Empathy development in medical education – A critical review. Med Teach. 2010; 32(7): 593-600. https://doi.org/10.3109/01421590903544702

7. Elani H, Allison P, Kumar R, Macini L, Lambrou A, Bedos C. A systematic review of stress in dental students. J Dent Educ. 2014; 78(2): 226-242.

8. Kang I, Foster-Page LA, Anderson VR, Thomson WM, Broadbent JM. Changes in students' perceptions of their dental education environment. Eur J Dent Educ. 2014; 19(2): 122-130. DOI: https://doi.org/10.1111/eje.12112

9. Jain A, Bansal R. Stress among medical and dental students: a global issue. IOSR-JDMS. 2012; 1(5): 5-7.

10. Von-Marttens A, Carvajal J, Leighton Y, Von-Marttens M, Pinto L. Experiencia y significado del proceso de edentulismo de adultos mayores, atendidos en un consultorio del servicio público chileno. Rev Clin Periodoncia Implantol Rehabil Oral. 2010; 3(1): 27-33. DOI: http://dx.doi.org/10.4067/S0719-01072010000100005

11. Hemmerdinger JM, Stoddart SD, Lilford RJ. A systematic review of tests of empathy in medicine. BMC Med Educ. 2007; 7(1): 24. DOI: https://doi.org/10.1186/1472-6920-7-24

12. Merfat-Ayesh A. Hidden curriculum as one of current issue of curriculum. J Educ Pract. 2015; 6(33): 125-128.

13. Useche-Aldana Ó. Jóvenes y productividad: las nuevas formas del trabajo y el problema del desarrollo humano. Polis (Santiago). 2009; 8(23): 195-224.