



ORIGINAL ARTICLE

Luis Espinoza¹.

1. CESFAM Hualpencillo, Hualpén, Chile.

Corresponding author: Luis Espinoza. Bulgaría 2845, Concepción, Chile. Phone: (+56) 413168230. E-mail: drluisespinoza@gmail.com

Receipt: 03/07/2016 **Revised:** 03/15/2016
Acceptance: 03/17/2016 **Online:** 03/17/2016

Training instances related to health psychology and counseling in the curricula of Chilean dentistry undergraduate programs.

Abstract: Introduction: Recent evidence shows the positive impact of oral health promotion interventions based on psychological models. However, no data exist regarding the training of these skills in Chilean dentistry undergraduate programs. Objective: To identify training instances related to health psychology and counseling in the curricula of Chilean dentistry undergraduate programs. Methodology: Cross-sectional study, the unit of analysis was the curricula of dentistry programs offered by Chilean universities in 2016. Results: Dentistry curricula of 20 Chilean universities were analyzed. On average, each university has 1.95 ± 2.16 courses (semester) related to psychology and/or counseling. Private universities have 1 ± 0.63 courses, while traditional, 3.11 ± 2.80 . In 4 (20%) universities it was not possible to identify courses related to this topic, while two universities (both traditional) had 7 and 8 courses in this area, respectively. Conclusion: There are few instances of psychology/counseling training in dentistry programs in Chile. Considering the implementation of a policy focused intensely on health care and the positive impact of the application of psychological models to dental practice it is necessary to give more importance to these skills in Chilean undergraduate dental training.

Keywords: *Psychology, Curriculum, Dentistry, Chile.*

DOI: *10.17126/joralres.2016.016.*

Cite as: *Espinoza L. Training instances related to health psychology and counseling in the curricula of Chilean dentistry undergraduate programs. J Oral Res 2016; 5(2): 77-81.*

INTRODUCTION.

Curriculum and learning have been the two areas of greatest interest in dental education worldwide¹. Curriculum seems to be the major concern, particularly in developed countries, when it comes to improve the teaching and training of dental surgeons to make it more efficient in order to meet the needs of the population^{2,3}. In this regard, an aspect that has been emphasized in dental education is training in research⁴. It has also been studied in Chile⁵. Once we have realized that the future of dentistry lies on evidence-based practice, evidence must come precisely from research.

In recent decades a number of theoretical advances with practical implications have been developed in psycholo-

gy to strengthen or restore the health of people⁶. Several of these theories have proven effective in the field of oral health promotion⁷. Some of the most important theories in this regard are the salutogenic model⁸, social cognitive theory⁹, the theory of reasoned action¹⁰ and the health belief model¹¹, among others. In general, the application of these theories can promote health through the empowerment of people, helping them to develop the necessary skills to maintain or restore their health. These skills are included in the concept of health literacy, which in dentistry corresponds to oral health literacy¹².

Nowadays, there is plenty of evidence of the crucial role literacy plays in oral health and in the state of oral health of people themselves and those who are under

their care¹². For this reason, a call has been made in order to improve the teaching of these psychological models to dental students⁷. Recent evidence has shown that dental students trained in motivational interviewing, based on some of the theories mentioned above, have had a positive impact on the health of their patients¹³.

Despite the above, there is little information about relevant areas in the curriculum of Chilean dental education⁵. Furthermore, there is no data with respect to training in psychology or health counseling techniques. As evidence shows⁷⁻¹³, they could have a positive impact on the oral health of patients in the long term.

The objective of this research is to identify training instances related to health psychology and counseling in the curricula of Chilean dentistry undergraduate programs.

MATERIALS AND METHODS.

This is a descriptive exploratory study based on the methodology proposed by Moreno to describe training in research in dental programs in Chile⁵. The unit of analysis was the curricula of dental programs offered by Chilean universities in 2016.

Curricula were found on institutional websites (universities) and downloaded on February 29th, 2016. The following variables were included in the analysis: name and type of university (traditional or private), number of psychology/counseling courses or subjects and the semester in which the course/subject is taught.

As the contents of psychology and health counseling courses can only be assessed in the syllabus of each subject, which is not freely accessible, the name of the subjects or courses was used as an indicator of their content. Subjects/courses including words such as the following were included in this study: *psychology, psychosocial, promotion and prevention*, plus their variants or similar keywords.

Data were tabulated in a spreadsheet MS Excel 2013 (Microsoft Corp., Redmond, USA). A descriptive analysis was performed using a distribution table for each semester.

RESULTS.

The curricula of dental programs of 20 universities were analyzed. On average, each university had 1.95 ± 2.16 subjects/courses (semester) related to psychology and/or health counseling. Private universities had 1 ± 0.63 subjects or courses of this kind, while traditional had 3.11 ± 2.80 . In four universities (20%) it was not possible to identify subjects/courses related to the topics, while two universities (both traditional) had seven and eight subjects or courses in this area, respectively.

Most of the subjects and courses identified are related to promotion and prevention (education) in oral health. Only in 7 (35%) curricula it was possible to identify the presence of some subjects with an explicit name in the field of psychology.

The distribution of subjects and courses by type, university and semester classified by colors and sequence are summarized in Table 1.

DISCUSSION.

The results of this exploratory study show that there are on average about 2 subjects or courses related to psychology and/or health counseling in the training of Chilean dental students.

However, these results can be misleading because the methodology used in this study has several limitations. First, subjects/courses were evaluated only by their name, which does not necessarily imply that students are trained in psychological models useful in dentistry in the identified subjects/courses. Moreover, it is possible that some of the unidentified subjects actually included training in psychology/counseling, as it is the case of public health courses or integrating subjects.

Second, it is not clear how many actual learning/teaching hours were included in these subjects. If we use the criterion proposed by Moreno⁵, who estimated a minimum of two teaching hours a week for each subject, it can be estimated that there is a minimum of 60 teaching hours during the 6 years of study. But this can also have a large variation, which can be even larger than estimated if the distribution

Table 1. Distribution of courses/subjects on psychology and counseling in dental programs according to semester and university, Chile, 2016.

University	Sem 1	Sem 2	Sem 3	Sem 4	Sem 5	Sem 6	Sem 7	Sem 8	Sem 9	Sem 10	Sem 11	Sem 12
Universidad de Chile			1	2			4	5	6	7		
Universidad de Concepción				3								
Universidad de Valparaíso			1		2							
Universidad de Antofagasta					1	2						
Universidad de Talca		1							2	3		
Universidad de La Frontera	1	2	3	4	6	8						
Universidad Mayor				5	7							
Pontificia Universidad Católica de Chile				1	2	3			4			
Universidad Austral de Chile			1		2							
Universidad de Los Andes												
Universidad Autónoma					1							
Universidad Bolivariana						1						
Universidad del Desarrollo				1		2						
Universidad Diego Portales									1			
Universidad Finis Terrae										1		
Universidad de La Serena												
Universidad Andrés Bello				1								
Universidad Pedro de Valdivia		1		2								
Universidad San Sebastián				1								
Universidad de Viña del Mar		1										

Classification by color and serial number of the course:

Psychosocial

Promotion

Psychology

Prevention

between theoretical and practical hours is included in the analysis. Third, this study examines the curricular component, in circumstances when most dental programs provide extracurricular instances in which it could be possible for

students to practice counseling activities, such as summer jobs. Fourth and finally, the last year of the program consists of an internship, in which in addition to clinical work, an important part of most Chilean dental programs seems

to offer students the opportunity of getting engaged in promotion and prevention activities, instances which lead to the development of skills in psychology and counseling applied to dentistry.

Another point out of interest is that approximately 3 out of 4 subjects or courses related to psychology/counseling are placed in the first three years of training. If we consider that most or all of the clinical work is done in the last 3 years, it seems that training in these areas it is not clearly integrated into the clinical period, but rather focused on theoretical aspects. However, it is not possible to say that this matter is not integrated in clinical training, as this could be one of the objectives in specialty and/or integrating clinics, as it is the case in periodontics¹³.

Although the role of the dentist is focused on the most prevalent diseases of the oral cavity, caries and periodontal disease, the type of counseling that dentists can provide is not limited to these pathologies. Another instance of counseling that can be advantageous in the dental box is smoking cessation, not only for its impact on oral cancer, but because of its negative impact on overall health. Unfortunately, numerous recent studies have shown that dentists do not have the necessary skills to provide this type of counseling, which is usually of very poor quality^{14,15}. While a direct reference to smoking cessation was not found in the curricula, it is important to

note that there are guidelines established by the Chilean Ministry of Health to encourage dentists to provide counseling in this area¹⁶.

However, smoking cessation is not the only untraditional area where dentists can practice counseling. In recent years there have been some experiences of counseling in diabetes¹⁷, HIV¹⁸, childhood obesity¹⁹ and substance abuse²⁰. This implies the possibility that the impact of a dentist's job is not limited to the treatment of caries and periodontal disease. But for achieving these goals, dentists need to receive the necessary training to meet the needs of the population in relation to health promotion and prevention.

Future research in this field should evaluate the contents of the subjects or courses identified in this study. Similarly it is necessary to assess the skills of Chilean dental students for performing counseling interventions in health care. Considering the implementation of a policy focused intensely on health care and the positive impact of the application of psychological models to dental practice it is necessary to give more importance to these skills in Chilean undergraduate dental training.

In summary and considering the limitations of this study, there are on average about two instances of training in psychology and/or health counseling mainly in the first three years of the dental programs in Chile.

Instancias de formación relacionadas con psicología y consejería en salud en las mallas curriculares de odontología en Chile.

Resumen: Reciente evidencia muestra el positivo impacto de intervenciones de promoción en salud oral basadas en modelos psicológicos. Sin embargo, no existen datos respecto a la formación de estas competencias en las carreras de odontología chilenas. **Objetivo:** Identificar la presencia instancias de formación relacionadas con psicología y consejería en salud en las mallas curriculares de odontología en Chile. **Metodología:** Estudio de corte transversal, la unidad de análisis fueron las mallas curriculares de las carreras de odontología, de todas las universidades chilenas vigentes el 2016. **Resultados:** Se analizaron las mallas curriculares de odontología de 20 universidades chilenas. En promedio

cada universidad tiene $1,95 \pm 2,16$ ramos (semestrales) relacionados con psicología y/o consejería. Las universidades privadas tienen $1 \pm 0,63$ ramos de este tipo, mientras que las tradicionales tenían $3,11 \pm 2,80$. En 4 (20%) universidades no fue posible identificar ramos relacionados con este tópico, mientras que 2 universidades (ambas tradicionales) presentaron 7 y 8 ramos en esta área, respectivamente. **Conclusión:** Existen pocas instancias de formación en psicología/consejería en las carreras de odontología en Chile. Considerando la implementación de un enfoque promocional en salud y el positivo impacto que tienen la aplicación de intervenciones basadas en modelos psicológicos a la práctica dental se hace necesario dar mayor relevancia a estas competencias en la educación odontológica chilena.

Palabras clave: *Psicología, Currículo, Odontología, Chile.*

REFERENCES.

1. Attik GN, Moreau K. In vitro biocompatibility of a dentine substitute cement on human MG63 osteoblasts cells: Biodentine™ versus MTA® Int Endod J. 2014 Feb 12; ahead of print.
2. Attik GN, Moreau K. In vitro biocompatibility of a dentine substitute cement on human MG63 osteoblasts cells: Biodentine™ versus MTA® Int Endod J. 2014 Feb 12;
3. Haden NK, Hendricson WD, Kassebaum DK, Ranney RR, Weinstein G, Anderson EL, Valachovic RW. Curriculum change in dental education, 2003-09. J Dent Educ. 2010;74(5):539-57.
4. Emrick JJ, Gullard A. Integrating research into dental student training: a global necessity. J Dent Res. 2013;92(12):1053-5.
5. Moreno X. Research training in dental undergraduate curriculum in Chile. J Oral Res. 2014;3(2):95-9.
6. Hollister MC, Anema MG. Health behavior models and oral health: a review. J Dent Hyg. 2004;78(3):6.
7. Kay E, Vascott D, Hocking A, Nield H, Dorr C, Barrett H. A review of approaches for dental practice teams for promoting oral health. Community Dent Oral Epidemiol. 2016;[Epub ahead of print].
8. Peker K, Bermek G, Uysal O. Factors related to sense of coherence among dental students at Istanbul University. J Dent Educ. 2012;76(6):774-82.
9. Jones K, Parker EJ, Steffens MA, Logan RM, Brennan D, Jamieson LM. Development and psychometric validation of social cognitive theory scales in an oral health context. Aust N Z J Public Health. 2015.
10. Jönsson B, Baker SR, Lindberg P, Oscarson N, Ohrn K. Factors influencing oral hygiene behaviour and gingival outcomes 3 and 12 months after initial periodontal treatment: an exploratory test of an extended Theory of Reasoned Action. J Clin Periodontol. 2012;39(2):138-44.
11. Walker K, Jackson R. The health belief model and determinants of oral hygiene practices and beliefs in preteen children: a pilot study. Pediatr Dent. 2015;37(1):40-5.
12. Cartes-Velásquez R. Literacy in health: conceptual base and evidences in dentistry. MEDISAN. 2015;19(4):562-70.
13. Woelber JP, Spann-Aloge N, Hanna G, Fabry G, Frick K, Brueck R, Jähne A, Vach K, Ratka-Krüger P. Training of Dental Professionals in Motivational Interviewing can Heighten Interdental Cleaning Self-Efficacy in Periodontal Patients. Front Psychol. 2016;7:254.
14. Shaheen S, Reddy S, Doshi D, Reddy P, Kulkarni S. Knowledge, Attitude and Practice Regarding Tobacco Cessation Among Indian Dentists. Oral Health Prev Dent. 2015;13(5):427-34.
15. Razavi SM, Zolfaghari B, Doost ME, Tahani B. Attitude and practices among dentists and senior dental students in Iran toward tobacco cessation as an effort to prevent oral cancer. Asian Pac J Cancer Prev. 2015;16(1):333-8.
16. Ministerio de Salud. Tabaco o salud bucal. Santiago: Ministerio de Salud; 2005.
17. Anders PL, Davis EL, McCall WD Jr. Dental students' glucometer experience and attitudes toward diabetes counseling, monitoring, and screening: a comparative study. J Dent Educ. 2014;78(9):1263-7.
18. Mucheto P, Makoni F, Mahachi L, Mahomva L, Rusike TA, Masiwa A, Kumbawa R. The role of dental practitioners in Provider Initiated HIV Counseling and Testing (PITC) for patients attending dental practices in Harare, Zimbabwe. Cent Afr J Med. 2012;58(9-12):39-43.
19. Lee JY, Caplan DJ, Gizlice Z, Ammerman A, Agans R, Curran AE. US pediatric dentists' counseling practices in addressing childhood obesity. Pediatr Dent. 2012;34(3):245-50.
20. Brondani MA, Pattanaporn K. Integrating issues of substance abuse and addiction into the predoctoral dental curriculum. J Dent Educ. 2013;77(9):1108-17.