Impact of the curricular component management and professional guidance on the level of knowledge about administration of dentistry students at UFPB

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ABSTRACT

Obtaining basic management skills and including management and leadership as essential components of the curriculum is a critical part of dental students' education. This research evaluated the understanding of management concepts of dental students at the Federal University of Paraíba (UFPB), before and after participating in a Management and Professional Guidance course. This quantitative study assessed the level of knowledge of management skills and competencies of dental students through a validated questionnaire. The data were analyzed using descriptive and inferential statistics, adopting a significance level of 5%. The sample consisted of 47 students, 18 from the 1st semester, 18 from the 7th semester and 11 from the 10th semester of the course. All students considered knowledge about management extremely important for the dentist. The level of knowledge about management skills and leadership is low among students, with no statistically significant difference between student year of training. Specifically, concerning students midway through their dental training, there was a significant increase in knowledge for all management skills after attending the Management and Professional Guidance course (p < 0.05). As for Leadership Skills, there was a statistically significant difference (p <0.05) for "Legal Notions", "Self-Management" and "Management Relationship". We conclude that knowledge about management and leadership is low among undergraduate dental students at UFPB and that the "Management and Professional Guidance" course promoted a significant increase in the level of this knowledge, contributing to better professional training for students.

Descriptors: Leadership. Management. Professional Practice. Education, Dental.

1 INTRODUCTION

The large number of dental clinics in Brazil, and the resulting competition, reinforced the need for practices to differentiate themselves in management and leadership skills, specifically in financial analysis, strategic planning and personal administration¹. However, dentists in general have not received adequate training as part of their dental school education. Hence, the time has come for dental schools to take a more active stance on training the new professionals to better manage their dental office². Indeed, dental students' development of leadership skills represents one of the best opportunities for identifying limitations, talents, interests, and skills³.

There are numerous reasons for dentists to gain knowledge in the broad areas of management leadership. and Knowledge financial sustainability and other aspects involved in office management contribute to reducing the risk of failure for potential entrepreneurs, which includes graduates starting a new dental practice or taking over and expanding an existing practice, especially careers². their Furthermore, early entrepreneurship teaching should be included as part of an all rounded academic education and professional life for students, as many students may have entrepreneurship as their main focus⁴. Importantly, a curriculum composed of solely clinical courses will not prepare our learners for the demands of running the modern dental clinic⁵.

The National Curricular Guidelines for the Undergraduate Dentistry Curriculum in Brazil state that the curriculum should aim to provide the students with the knowledge to exercise management skills and competencies, workforce administration, human and material resources and information and be able to be entrepreneurs, managers, employers or leaders of the health team⁶. These demands are also related to administrative and management knowledge, whether in the public or private sector⁷.

Taichman and Parkinson (2012)⁸ believe that the focus on leadership is an essential component of undergraduate dentistry curricula, and that the failure to train and develop future leaders is a serious mistake and puts the profession at risk. They also believe that oral health is best promoted by professionals with the ability, knowledge and passion to put patients' needs first. Failure to invest in leadership development can accelerate an erosion of the profession's stature, and at the same time put decisions and processes in the hands of those who do not offer oral health its due value, as dental professionals do. Therefore, it is essential for dental academic courses, to expand leadership and management training for its students.

Similarly, leadership training for dental postgraduate students is an educational opportunity that is currently untapped in most institutions and many aspects of the current curriculum could be used or expanded as a basis for leadership training⁹.

Given the need for skills development as oral health educators, community leaders and respected professionals, Harvard School of Dental Medicine developed a course with the purpose of teaching skills and competencies associated with leadership. The course successfully introduced dental students to leadership concepts relevant to oral health. In addition, students enjoyed being able to self-assess their level on various leadership skills before and after participating in the course⁵.

In 2015, a similar study assessed the perception of dental students at the Federal University of Paraíba (UFPB) about leadership and management and the need to guide students on the topic. It became clear that knowledge of management and leadership topics was lacking and that there was enthusiasm on the part of students regarding the creation of a leadership and management course at UFPB¹⁰.

In 2018, the curriculum component of Professional Management and Guidance was created at UFPB, and since then, the impact of this

course on the students' level of knowledge in relation to the subjects addressed has not yet been assessed. The present study assessed the level of knowledge on management and leadership of undergraduate dental students at UFPB and analyzed this knowledge for students midway through dental school, before and after taking the Management and Professional Guidance course.

2 METHODS

This research was approved by the Research Ethics Committee of the UFPB Health Sciences Center under the number (CAE78877817.5.0000.5188); written consent was obtained from participants. Dental students who previously had taken an undergraduate course in administration or a management course were excluded.

This is a cross-sectional, quantitative study carried out with Dental students at the UFPB, during the first semester of 2019. The Management and Professional Guidance training is offered in the 7thth semester of Dental School, which has ten

academic semesters in all. There were 313 students enrolled in the entire dentistry's course during the period of data collection. A convenience sample was chosen including students regularly enrolled in the Management and Professional Guidance course in the 2019 (n= 28) in addition to students in the 10th semester (n=32), who had not taken the Professional Management and Guidance course because they were enrolled in the curriculum prior to the implementation of the Professional Management and Guidance course and students in their 1st semester (n=35) who also had not yet taken the course.

Students were asked to answer the questionnaire based on the questionnaires applied by Kalenderian *et al.* (2014)⁵ and validated in Brazil by Almeida *et al.* (2018)¹¹. The questionnaire uses a *Likert* scale, in which the student self-describes his level of knowledge around the topics covered on a scale ranging from 1 to 5, 1 being very insufficient; 2 insufficient; 3 fair /moderate; 4 good and 5 excellent knowledge on the subject (figure 1).

Management skills and competences	Leadership skills and competences
Scientific management concepts	Humanization
Classic administration concepts	Legal notions
Strategic planning	Consultation skills
Clinical hour cost	Empathy
Calculation of fixed costs	Ability to influence
Determination of the wage compensation	Self-management
Determination of corrected operating cost	Management relationship
Determination of Variable office costs	Authenticity
Establishment of fee table	Integrity
Production and productivity	Reliability
Correct office setup	Personal responsibility
Marketing concepts in dentistry	Conflict management
Market segmentation	Lead Groups/Teams
Target clients of the office	Dealing with difficult personalities
Need, desire and demand	Probability of exercising leadership during conflict
Visual identity and brand	

Figure 1. Skills and competences assessed

The questionnaire presented knowledge levels questions about management skills, the instrument addressed administrative concepts, methods and organizational strategies, business financial aspects, setting up and maintaining an office, market strategies and dental marketing. In addition, in relation to the level of knowledge of leadership skills and competences such as in the

areas of patient care management, emotional intelligence, the exercise of leadership in daily life, legal notions and consultation skills.

The questionnaires were applied at UFPB in person during class time for the Management and Professional Guidance course for students of the 7th semester. For the others, the questionnaires were applied in person during other academic hours according to the availability of each class.

The data were tabulated in a Microsoft Office Excel 365® spreadsheet (Microsoft, Redmond, WA, USA) and later transferred to the statistical software SPSS® v. 22.0 (IBM, Armonk, NY, USA). Descriptive statistics were used to characterize the sample and to obtain measures of central tendency and variability of responses related to questions based on a Likert scale (management skills and administration skills). In addition, inferential statistical analysis was performed to compare the responses present in the questionnaires between the different semesters. First, the responses related to management skills and administration skills between the different semesters (1st semester 1, 7th semester 7 and 10th semester 10) were compared using the Kruskal Wallis Test, with complementation by the Mann-Whitney Test. Subsequently, the responses of the students of the 7th semester were compared between the two different times they answered the questionnaire (before after participating and the Management and Professional Guidance course), through the Wilcoxon Test. For all analyzes, the 5% significance level was adopted.

3 RESULTS

The questionnaire was answered by 49 students, however two were disregarded due to the exclusion criteria, resulting in a final sample of 47 participants from the 95 students enrolled in the 1st, 7th and 10th semesters (49.5%). The distribution of sample (n=47) according to

semester was: 18 (38.3%) students from the 1 th semester of the Dentistry course, 18 (38.3%) from the 7th semester and 11 (23.4%) from the 10th semester of the Dentistry course.

Fourteen (29.8%) students identified themselves as male, while 33 (70.2%) identified themselves as female. Their age ranged from 17 to 27 years, with an average of 21.47 ± 2.3 years.. The characterization of the sample is shown in table 1.

Table 2 shows the level of knowledge regarding management skills for students from different semesters, with insufficient to moderate levels, with no statistically significant difference between semesters for most variables, with the exception of "scientific management concepts", "classic management concepts", "clinical hour cost" and "visual identity and brand".

Table 3 shows the level of knowledge regarding leadership skills for students from different semesters, with insufficient to moderate levels, with no statistically significant difference between semesters for most variables, with the exception of "legal notions", "consultation skills" and "authenticity".

When analyzing the management skills of students in the 7th semester before and after taking the Management and Professional Guidance course, the level of knowledge has improved for all variables analyzed, with a statistically significant difference (p-value <0.05). The following skills had the most significant gain: "determination of adequate pro-labore", "variable costs of the office" and "production and productivity" (table 4).

Table 5 shows the results obtained by students in the 7th semester before and after the course in terms of leadership skills. Three of the fifteen skills improved, showing a significant difference (p-value <0.05): "legal notions", "self-management" and "management relationship".

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Table 1. Characterization of the sample according to sex and academic semester of graduation

Sex	S1	S7	S10	TOTAL
	n (%)	n (%)	n (%)	n (%)
Female	9 (50.0)	16 (88.9)	8 (72.7)	33 (70.2)
Male	9 (50.0)	2 (11.1)	3 (27.3)	14 (29.8)
Total	18 (100.0)	18 (100.0)	11 (100.0)	47 (100.0)

S1 = students of the first semester, S7 = students of the seventh semester, s10 = students of the tenth semester.

Table 2. Systematization of responses related to management skills according to school terms

Managament Chille		S1		$\mathrm{S7}^{eta}$				S10		
Management Skills	Mean	Median	SD	Mean	Median	SD	Mean	Median	SD	value*
Scientific management concepts	1.72ª	2.00	0.83	1.44 ^{a,b}	1.00	0.78	2.00 ^{a,c}	2.00	0.45	0.026**
Classic administration concepts	2.06ª	2.00	1.00	1.39 ^b	1.00	0.61	2.27 ^{a,c}	2.00	0.90	0.014**
Strategic planning	2.72	3.00	1.23	2.00	2.00	0.77	2.27	2.00	0.78 6	0.119
Clinical hour cost	1.78 ^a	1.50	0.94	2.39^{b}	2.00	0.85	2.91 ^b	3.00	0.94	0.008**
Calculation of fixed costs	2.12	2.00	1.22	2.17	2.00	0.86	2.55	2.00	0.93	0.512
Determination of the wage compensation	1.44 ^a	1.00	0.70	1.56ª	1.50	0.62	2.27 ^b	2.00	1.01	0.018**
Determination of corrected operating cost	1.61	1.50	0.70	1.61	2.00	0.50	2.18	2.00	0.75	0.070
Determination of variable office costs	1.88	2.00	0.86	2.22	2.00	0.88	2.50	2.00	1.08	0.307
Establishment of fee table	1.78	1.00	1.00	2.17	2.00	0.86	2.73	2.00	1.19	0.069
Production and productivity	2.50	3.00	1.29	1.89	2.00	0.83	2.60	2.50	1.07	0.161
Correct office setup	2.00	2.00	0.97	2.39	2.00	0.78	2.90	3.00	1.10	0.083
Marketing concepts in dentistry	2.00	2.00	1.08	2.61	3.00	0.85	2.60	3.00	0.84	0.121
Market segmentation	1.83	2.00	0.79	1.94	2.00	1.00	2.30	2.00	0.82	0.360
Target clients of the office	2.94	3.00	1.16	2.72	3.00	0.83	3.10	3.00	0.99	0.660
Need, desire and demand	2.72	2.40	1.23	2.22	2.00	1.11	2.70	3.00	0.67	0.338
Visual identity and brand	3.00a	3.00	1.26	2.11 ^b	2.00	1.02	3.30 ^{a,c}	3.50	0.82	0.013**

^{*} Kruskal Wallis test. ** Statistically significant difference (p-value <0.05). a, different letters indicate a statistically significant difference in the two-by-two comparison (S1XS7, S1XS10, S7XS10) detected by the Mann-Whitney test (p-value <0.05). β 7th semester, before taking the curricular component of Management and Professional Guidance.

Table 3. Systematization of responses related to leadership skills

Landamskin Chille		S1			S7 ^β			S10		р-
Leadership Skills	Mean	Median	SD	Mean	Median	SD	Mean	Median	SD	value*
Humanization	4.11	4.00	0.68	4.22	4.00	0.55	4.55	5.00	0.52	0.179
Legal notions	2.72^{a}	3.00	0.90	2.06^{b}	2.00	0.80	2.64 ^a	3.00	0.81	0.047**
Consultation skills	3.39^{a}	3.00	1.04	3.67^{a}	4.00	0.84	4.27^{b}	4.50	0.47	0.035**
Empathy	4.56	5.00	0.51	4.44	4.00	0.51	4.40	4.50	0.70	0.786
Ability to influence	3.56	3.00	0.86	3.39	3.00	0.92	3.64	4.00	0.81	0.700
Self management	3.17	3.00	1.04	2.72	2.00	1.02	3.18	3.00	0.98	0.325
Management Relationship	2.89	3.00	0.83	2.56	2.00	0.98	3.36	4.00	1.03	0.079
Authenticity	4.11 ^a	4.00	0.68	4.11 ^a	4.00	0.83	4.82^{b}	5.00	0.40	0.012**
Integrity	4.50	4.50	0.51	4.39	4.50	0.70	4.64	5.00	0.50	0.645
Reliability	4.35	4.00	0.70	3.94	4.00	0.72	4.09	4.00	0.70	0.232
Personal responsability	4.11	4.00	0.90	4.33	4.00	0.59	4.45	4.00	0.52	0.625
Conflict management	3.39	3.00	0.78	3.28	3.00	0.89	3.73	3.00	0.95	0.548
Ability to lead groups/teams	3.6	4.00	0.78	3.67	4.00	0.97	3.82	4.00	0.87	0.879
Dealing with difficult personalities	3.61	3.00	0.92	3.61	3.50	0.70	3.64	3.00	0.92	0.983
Probability of exercising leadership during conflict	4.00	4.00	0.77	3.53	3.00	0.80	3.64	3.00	0.81	0.198

^{*}Kruskal Wallis test. **Statistically significant difference (p-value<0.05). a, bDifferent letters indicate a statistically significant difference in the two-by-two comparison (P1XP7, P1XP10, P7XP10) detected by the Mann-Whitney test (p-value <0.05). β 7th semester, before taking the curricular component of Management and Professional Guidance.

Table 4. Systematization of responses related to the management skills of students in the seventh semester before and after taking the curricular component of Management and Professional Guidance

Managamant Skills	S	7 - Before		S7 - After			
Management Skills	Mean	Median	SD	Mean	Median	SD	p-value*
Scientific management concepts	1.44	1.00	0.78	2.61	3.00	0.61	0.003**
Classic administration concepts	1.39	1.00	0.61	3.06	3.00	0.72	0.001**
Strategic planning	2.00	2.00	0.77	3.44	3.00	0.86	0.002**
Clinical hour cost	2.39	2.00	0.85	3.28	3.00	0.89	0.008**
Calculation of fixed costs	2.17	2.00	0.86	3.56	3.50	0.92	0.001**
Determination of the wage compensation	1.56	1.50	0.62	3.28	3.00	0.67	<0.001**
Determination of corrected operating cost	1.61	2.00	0.50	2.78	3.00	0.73	0.002**
Determination of variable office costs	2.22	2.00	0.88	3.61	3.50	0.85	<0.001**
Establishment of fee table	2.17	2.00	0.86	3.44	3.00	0.86	0.001**
Production and productivity	1.89	2.00	0.83	3.61	3.50	0.70	<0.001**
Correct office setup	2.39	2.00	0.78	3.33	3.00	0.91	0.007**
Marketing concepts in dentistry	2.61	3.00	0.85	3.56	4.00	0.70	0.007**
Market segmentation	1.94	2.00	1.00	3.39	3.00	0.50	0.001**
Target clients of the office	2.72	3.00	0.83	3.72	4.00	0.75	0.002**
Need, desire and demand	2.22	2.00	1.11	3.61	3.50	0.85	0.004**
Visual identity and brand	2.11	2.00	1.02	3.56	4.00	0.70	0.001**

^{*} Wilcoxon test. ** Statistically significant difference (p-value <0.05).

Table 5. Systematization of responses related to the leadership skills of students in the seventh semester before and after taking the curricular component of Management and Professional Guidance

Loodonskin Skills		S7- Before			S7-After		p-value*
Leadership Skills	Mean	Median	SD	Mean	Median	SD	
Humanization	4.22	4.00	0.55	4.39	4.00	0.50	0.180
Legal notions	2.06	2.00	0.80	2.78	3.00	0.88	0.033**
Consultation skills	3.67	4.00	0.84	3.83	4.00	0.62	0.317
Empathy	4.44	4.00	0.51	4.33	4.00	0.59	0.480
Ability to influence	3.39	3.00	0.92	3.61	3.50	0.85	0.248
Self-management	2.72	2.00	1.02	3.50	4.00	0.79	0.023**
Management relationship	2.56	2.00	0.98	3.22	3.00	0.73	0.018**
Authenticity	4.11	4.00	0.83	4.28	4.00	0.67	0.405
Integrity	4.39	4.50	0.70	4.56	5.00	0.51	0.257
Reliability	3.94	4.00	0.72	4.00	4.00	0.69	0.763
Personal responsibility	4.33	4.00	0.59	4.17	4.00	0.79	0.257
Conflict management	3.28	3.00	0.89	3.56	4.00	0.70	0.197
Ability to lead groups/teams	3.67	4.00	0.97	3.67	4.00	1.24	0.850
Dealing with difficult Personalities	3.61	3.50	0.70	3.89	4,00	0.90	0.218
Probability of exercising leadership during conflict	3.53	3.00	0.80	3.72	4.00	0.96	0.490

^{*} Wilcoxon test. ** Statistically significant difference (p-value <0.05).

4 DISCUSSION

Management and leadership skills are essential in both the public and private arena. In this context, management education can influence the student's education process, positively impacting their performance in the job market⁷. For the students to alter their choice of employment may be in part a testimony of the influence of the course. It also aligns with the national guidelines of Dentistry courses in Brazil, which demands training dental students to work in the Unified Health System (Sistema Único de Saúde, SUS).

The development of leadership skills was most significant in those students who did not have training in this topic before taking this course, allowing for the introduction of key concepts to form a solid basis for their continuing education in leadership. In addition, it is noted that the course incorporated a wide variety of leadership concepts and processes currently accepted within the dental job market¹².

In the present study, there was an increase in leadership skills among students in the third year of the dentistry course. In another study, students graduating from a similar course were found more competent in areas of "humanization of care", "performance of collective actions" and "being entrepreneurs". However, students were found to not have gained competencies in the areas of other leadership skills such as: "leadership of the health and dentistry team" and "administrative guidance"¹³.

The current study showed a positive impact on the level of knowledge of dental students after attending the management and leadership course. A similar survey assessed the impact of the Management and Strategic Planning in Dentistry course for students at the University of São Paulo (USP-SP), showing that some of the students incorporated attitudes and values addressed throughout the semester. There was understanding of the importance of aspects such as: who will be the client, ways of adapting services to the patient's needs, places of care, costs, forms of payment, marketing and user satisfaction, among others⁷.

Leadership and management courses in dental schools are still rather nascent. Hence, we

cannot know the long-term impact of such programs offered to undergraduate dental students. However, as the need for oral health to become integrated with overall health continues to increase, it is imperative that we find effective ways to develop leaders in Dentistry^{3,14}.

The need for the new course was clearly demonstrated through the results of students from the last semester (10th semester). Even though they received some management and leadership training in their first two years, they did not score well in the questionnaire. The need for the course was further underscored by a study carried out at the UEPB that explored the perception of dentistry students related to leadership development. A significant percentage of students reported that they hoped to participate in leadership roles in the future, both in their offices and in other roles within and / or outside the profession. A relatively high proportion, about two-thirds, indicated that they would be interested in participating in a leadership development program, if such a program were offered at their university¹⁵.

Some management skills carry over into the clinical arena. As an example, the lack of knowledge of certain marketing processes may impact the management of other marketing areas that are part of the routine of a clinic or office manager, such as: communication, promotion, generation of benefits, and relationship with customers¹¹.

This research reports a significant increase in the assessed management skills of the students. This is likely driven by the content of the course, which over the 15 weeks period spent almost 70% on important management topics for the dentist, like strategic planning, personal and professional financial planning, management concepts and entrepreneurship^{1,2,5,7,16}. This provided less time for leadership skills development of the dental student^{9,17–19}. We expect to further balance the distribution between management and leadership

in the course in the future.

After completing the course, it was possible to identify characteristics of leadership and optimism regarding the student's professional future. Most students incorporated attitudes and values addressed by the course in planning their professional careers. This is encouraging as we know that it is not unusual for students to feel under/unprepared clinically as well as administratively to start a clinic and thus decide to continue with postgraduate training instead after dental school^{15,20,21}.

Limitations of this research are mainly associated with the fact that students did a self-assessment, which may lead to interpretation errors. Additionally, the study is limited to one institution and cannot be generalized, however may be able to help future cross-sectional studies to assess the impact of the themes addressed in this research.

Undoubtedly, there is a positive impact on dentists when they enter the marketplace with adequate leadership and management skills^{4,19}. It behooves dental schools to stay in touch with their graduates in an effort to evaluate the effectiveness of their academic curriculum²².

5 CONCLUSION

The level of knowledge of undergraduate dentistry students at UFPB about management and leadership was rather low. The newly introduced Management and Professional Guidance course promoted a significant increase in the level of this knowledge, allowing for improved preparation for an increasingly competitive job market.

RESUMO

Impacto do componente curricular gestão e orientação profissional no nível de conhecimento sobre administração de estudantes de Odontologia na UFPB

Obter habilidades básicas de gerenciamento e gerenciamento e lideranca componentes essenciais do currículo é uma parte essencial da educação dos estudantes Odontologia. Esta pesquisa avaliou o nível de compreensão de tópicos de gestão de alunos de Odontologia da Universidade Federal da Paraíba (UFPB), antes e após a participação em um treinamento em Gestão Orientação Profissional. Este estudo quantitativo avaliou o nível de conhecimento das habilidades e competências de gestão de estudantes de Odontologia por meio da aplicação de um questionário validado. Os dados foram analisados por meio de estatísticas descritiva e inferencial, adotando-se nível de significância de 5%. A amostra foi constituída por 47 alunos, sendo 18 do 1º semestre, 18 do 7º semestre e 11 do 10º semestre do curso. Todos consideraram o conhecimento sobre gestão extremamente importante para o cirurgião-dentista. O nível de conhecimento sobre habilidades de gestão e liderança é baixo entre os alunos, sem diferença estatisticamente significativa entre os seus anos de formação. Especificamente, em relação aos alunos na metade da formação odontológica, um aumento significativo houve conhecimento para todas as habilidades de gestão após cursarem Gestão e Orientação Profissional (p<0,05). Quanto às Competências de Liderança, houve diferença estatisticamente significativa (p<0,05) para "Noções Jurídicas", "Autogestão" e "Relação Gerencial". Conclui-se que o conhecimento sobre gestão e liderança é baixo entre os alunos de graduação em Odontologia da UFPB e que a disciplina "Gestão e Orientação Profissional" promoveu um aumento significativo no nível desse conhecimento, contribuindo para uma melhor formação profissional dos alunos.

Descritores: Liderança. Gestão. Prática Profissional. Educação Odontológica.

REFERENCES

1. Santana Júnior AC, Campos CC, Leles JLR, Guilherme AS, Silva DC. Análise da viabilidade financeira e dos aspectos legais

- para implementação de clínica odontológica na cidade de Goiânia. Rev Odontol Bras Central. 2013;22(63):134-42.
- Costa RM, Ribeiro NCR, Tunes UDR, Rocha MND, Lago MDS. Odontoclínica: simulação de gestão em clínica odontológica em um curso de Graduação em Odontologia. Rev ABENO. 2015;15(1):77-85.
- 3. Victoroff KZ, Schneider K, Perry C. Tomorrow's leaders, starting today: a pilot leadership development program for dental students. J Dent Educ. 2009;73(3):311-8.
- 4. Mendes MSSF, Valente MPB, Rodriguês EC, Siqueira JADS, Silva EBA, Santos NCN, et al. Perfil dos estudantes que ingressam no curso de Odontologia: motivos da escolha. Rev ABENO. 3 2018;18(4):120-9.
- 5. Kalenderian E, Skoulas A, Timothé P, Friedland B. Integrating leadership into a practice management curriculum for dental students. J Dent Educ. 2010;74(5):464-71.
- 6. Diretrizes Curriculares Nacionais dos Cursos de Graduação em Odontologia (Resolução CNE/CES 3, 21/06/2021) [Internet]. [Cited Feb 14, 2022]. Available from: https://www.in.gov.br/web/dou/-/resolucao-n-3-de-21-de-junho-de-2021-327321299.
- 7. Mota JMS, Araujo ME, Biazevic MGH, Carrer FC A, Lopez-Capp TT, Michel-Crosato E. Personal and professional profile, education, and perception of management and entrepreneurship of Dentistry students. Rev ABENO. 2018;18(4):85-94.
- 8. Taichman RS, Parkinson JW. Where is leadership training being taught in U.S. dental schools? J Dent Educ. 2012;76(6):713-20.
- Taichman RS, Parkinson JW, Nelson BA, Nordquist B, Ferguson-Young DC, Thompson JF. Leadership training for oral

- health professionals: a call to action. J Dent Educ. 2012;76(2):185-91.
- 10. D'Assunção FLC, De Almeida AC, Kalenderian E. Knowledge of leadership and management: pilot study of students' perceptions of a dentistry course at a university in Brazil. Rev ABENO. 2015;15(2):28-37.
- 11. Almeida AC, D'Assunção FLC, Pessoa TRRF, Kalenderian E, Felinto AR, Gonçalves HS, et al. Tradução e adaptação cultural de questionário sobre liderança em Odontologia. Rev ABENO. 2018;18(1):146-54.
- 12. Roig Jornet P, Kalenderian E. The effectiveness of an initial continuing education course in leadership for dentists. Eur J Dent Educ. 2018;22(2):128-41.
- 13. Mania TV, Vargas AMD, Ferreira EF. Inserção no mundo do trabalho odontológico: percepção de graduandos em Odontologia sobre habilidades adquiridas e expectativas. Rev ABENO. 2018;18(3):148-58.
- 14. Donoff B, McDonough JE, Riedy CA. Integrating oral and general health care. N Engl J Med. 2014;371(24):2247-9.
- 15. Querino JPFO, Peixoto LR, Sampaio GAM. Perfil dos concluintes de Odontologia da Universidade Estadual da Paraíba. Rev ABENO.;18(1):170-81.
- 16. Baur G, Barreto Cardoso M, Spiger V, Amante CJ. Perfil empreendedor dos estudantes de Odontologia da Universidade Federal de Santa Catarina. Rev ABENO. 2016;16(2):77-82.
- 17. Niemchick AL, Delgado J, Taichman RS, Inglehart MR. Dental students', alumni, and dentists' perspectives on leadership: impact of the scholars program in dental leadership. J Dent Educ. 2017;81(1):44-53.

- 18. Roig P, Kalenderian E, Pinilla J. The importance of leadership and management skills in dental practices to attract and retain patients in periods of economic recession. J Oral Res. 2015;4(5):321-8.
- 19. Taipale H, Tuononen TA, Suominen AL. Fifth-year dental students' visions of leadership a qualitative study. Eur J Dent Educ. 2018;22(4):272-80.
- 20. Melo Júnior PC, De Oliveira LGF, Guimarães RP, Beatrice LCS, Pedrosa MDS, Da Silva CHV. Profile of dentists graduate from the Federal University of Pernambuco. Rev ABENO. 2018;18(3):93-104.
- 21. Vieira da Silva C, Spiger V, Amante CJ. Perfil e expectativas profissionais de concluintes do curso de graduação em Odontologia da Universidade Federal de Santa Catarina. Rev ABENO. 2018;18(3):35-42.
- 22. Sousa JE, Maciel LKB, Oliveira CAS, Zocratto KBF. Mercado de trabalho em Odontologia: perspectivas dos estudantes concluintes de faculdades privadas no município de Belo Horizonte, Brasil. Rev ABENO. 2017;17(1):74-86.

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