

# The academic profile of Brazilian Dentistry course coordinators: an interface with Bioethics

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**Abstract** The National Curriculum Guidelines for the Undergraduate Course in Dentistry guide towards for humanistic, critical, and reflective education, with activities based on ethical/bioethical principles. Considering that undergraduate course coordinators are essential in conducting the education process, a nationwide study was carried out with the objective of evaluating the academic profile of these actors. This is a cross-sectional, documentary, exploratory, and analytical study. The data collection was carried out between June and July 2020, from the consultation of curricula on the Lattes Platform. Descriptive and univariate analyses were performed. The curricula of the coordinators from 446 Dentistry courses in activity in Brazil were analyzed. Of these, 53.0% were male; 94.2% graduated in Dentistry; 81.2% had at least one specialization, 89.5% had a master's degree, and 52.0% had a doctorate; 0.4% had a specialization in bioethics and 0.7% in legal dentistry; 11.7% had already lectured subjects in ethics (deontology and bioethics); 3.8% had participated in research projects, and 2.0% in extension projects related to ethics; while 6.1% had publications related to deontology, ethics, and/or bioethics. It is concluded that most coordinators have specialization and master's degrees, and just over half have a doctorate. However, few have some training in the areas of ethics and/or bioethics, or have extension and research projects in these fields of knowledge.

**Descriptors:** Job Description. Organization and Administration. Bioethics. Dentistry.

## El perfil académico de los coordinadores de cursos de Odontología brasileños: una interfaz con la Bioética

**Resumen** Las Directrices Curriculares Nacionales para los Cursos de Pregrado en Odontología prevén una formación humanística, crítica, y reflexiva basada en principios éticos/bioéticos. Considerando que los coordinadores de los cursos de pregrado son fundamentales en el proceso de formación, se realizó una pesquisa nacional para analizar el perfil académico de esos profesionales. Se trata de una investigación transversal, documental, exploratoria, y analítica. La colecta de datos se realizó entre junio y julio de 2020, a partir de la consulta de planes de estudio en la Plataforma Lattes. Se realizaron análisis descriptivos y univariados. Fueron analizados los currículos de los coordinadores de los 446 cursos de Odontología activos en Brasil. De los mismos, 53,0% eran hombres; 94,2% eran graduados en Odontología; 81,2% tenían por lo menos una especialización, 89,5% maestría y 52,0% doctorado; 0,4% tenían especialización en Bioética, y 0,7% en Odontología Legal; 11,7% ya había impartido asignaturas en las áreas de ética (deontológica y bioética); 3,8% participaba en proyectos de investigación, y 2,0% en proyectos de extensión relacionados con la ética; 6,1% tenía publicaciones relacionadas con la deontología, la ética y/o la bioética. Se concluye que la mayoría de los coordinadores tienen títulos de especialización y maestría, y poco más de la mitad tienen un doctorado. No obstante, pocos tienen formación en las áreas de ética y/o bioética, o presentan proyectos de extensión e investigación en estos campos del conocimiento.

**Descriptor:** Perfil Laboral. Organización y Administración. Bioética. Odontología.

## O perfil acadêmico dos coordenadores dos cursos de Odontologia brasileiros: uma interface com a Bioética

**Resumo** As Diretrizes Curriculares Nacionais para o Curso de Graduação em Odontologia orientam para uma formação humanista, crítica, reflexiva, e pautada em princípios éticos/bioéticos. Considerando que os coordenadores dos cursos de graduação são fundamentais no processo de formação, foi realizada uma pesquisa nacional, objetivando analisar o perfil acadêmico desses atores. Trata-se de

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pesquisa transversal, documental, exploratória e analítica. A coleta de dados ocorreu entre junho e julho de 2020, a partir da consulta aos currículos na Plataforma Lattes. Realizaram-se análises descritivas e univariada. Foram analisados os currículos dos coordenadores dos 446 cursos de Odontologia em atividade no Brasil. Destes, 53,0% eram do sexo masculino; 94,2% formados em Odontologia; 81,2% possuíam pelo menos uma especialização, 89,5% mestrado e 52,0% doutorado; 0,4% possuíam especialização em bioética e 0,7% em odontologia legal; 0,7% possuíam mestrado em odontologia legal; 11,7% já haviam lecionado disciplinas nas áreas de ética (deontológica e bioética); 3,8% participavam de projetos de pesquisa e 2,0% de projetos de extensão relacionados à ética; e 6,1% tinham publicações relacionadas à deontologia, ética e/ou bioética. Conclui-se que a maioria dos coordenadores possui cursos de especialização e mestrado, e pouco mais da metade possui doutorado. No entanto, poucos têm alguma formação nas áreas de ética e/ou bioética, ou apresentam projetos de extensão e pesquisa nesses campos do conhecimento.

**Descritores:** Descrição de Cargo. Organização e Administração. Bioética. Odontologia.

## INTRODUCTION

The purpose of education from a broad perspective – in line with the National Education Guidelines and Framework Law (GFL) No. 9.394 of 1996 – is the complete development of students, their preparation for the exercise of citizenship, and their qualification for the workplace. When it comes to higher education, this same GFL also establishes as an objective the development of reflective thinking and the training of professionals in different fields, who are capable of recognizing society's problems and contributing to its development<sup>1</sup>.

These guidelines are also included in the National Curriculum Guidelines (NCG) for Undergraduate Dentistry Courses, published in 2002<sup>2</sup>, and reiterated in the NCG for this same course, published in 2021<sup>3</sup>, which provide guidance for the training of professionals with a humanist and reflective profile, capable of making decisions and basing their critical thinking on ethical values.

Both in terms of training humanistic professionals – who are concerned about and engaged in transforming social reality – and in helping them make decisions, the knowledge – and teaching – of bioethics is proving to be increasingly valuable. Bioethics supports the training of professionals who respect human rights<sup>4</sup> and who recognize the value of all beings, providing a reflection on the effects of one's actions on the different forms of life<sup>5</sup>, and supports professionals in the constant need to make ethical decisions<sup>6</sup>, since it offers theoretical support and grounding for reflecting upon these issues<sup>7</sup>.

If (1) it is already recognized that teaching ethics and bioethics is important, and if (2) the 2002 NCG already expressed the need for changes in professional training – and for universities to adopt a stance regarding their social role and the concepts of health and education<sup>8</sup> –, then who would be responsible for this restructuring?

Different authors have attributed an important role to the coordinators of undergraduate courses in this curricular reorganization, since these professionals are responsible for drafting and monitoring the course's Political Pedagogical Project (PPP)<sup>9-11</sup>. Therefore, the essential role of coordinators in including ethics and bioethics in the curriculum is recognized, as well as in implementing actions that prioritize critical reflection and the development of students' moral competence during their undergraduate studies.

Therefore, considering the importance of these professionals in the education of graduates, this study was carried out via a search on the Lattes platform, aiming to find out the academic profile of these professionals, and highlighting their training in ethics and/or bioethics. The aim of this study is to present the results of this research.

## METHOD

This is a cross-sectional, exploratory, and analytical study. The study was carried out at a national level, including all undergraduate dentistry courses – both public and private – spread across Brazil.

A survey carried out on the Higher Education Regulation System (e-MEC - <http://emec.mec.gov.br/emec/nova>) found that there are 446 undergraduate dentistry courses currently in operation in Brazil. Contact information for the educational institution (e-mail, website, telephone, address), starting date of the course, quality indexes, periodicity, completion time, minimum workload, administrative category, and the name of the course coordinator for each institution were collected from this website.

After finding the names of the course coordinators, their CVs were viewed on the Lattes Platform, on the website of the National Council for Scientific and Technological Development (CNPq), in order to identify the academic and professional profile of these professionals. The data were collected between June and July 2020.

Coordinators who represented more than one institution, or represented more than one dentistry course within the same institution, had their CVs registered for all the courses they represented. Data were then collected on training (undergraduate, specialization, master's, and PhD); years teaching and coordinating courses; subjects taught in the field of ethics – in general, including normative subjects – and bioethics; participation in research and/or extension projects in the fields of ethics and/or bioethics; number of articles published; number of articles published on the subject of ethics and/or bioethics; and participation in Research Ethics Committees (RECs).

To analyze the data, descriptive statistics were initially carried out, estimating frequencies, means, medians, standard deviations, and interquartile ranges, in order to characterize the population studied in terms of the variables being studied. Inferential (analytical) analysis was then carried out to identify the factors associated with the ethical and bioethical characteristics of the curriculums (subjects taught in the field of ethics and/or bioethics; participation in research and/or extension projects in this field; articles published on ethics and bioethics; and participation in RECs). Pearson's Chi-squared or Fisher's exact tests were used to verify the associations between the categorical variables. For continuous variables, the normality of distribution was tested using the Kolmogorov Smirnov test. After this analysis, the non-parametric Mann-Whitney test was used. A significance level of 95.0% was established for all tests. All the analyses were carried out using the SPSS Statistics 23.0 program (IBM, Armonk, NY, USA).

The study was carried out in compliance with ethical principles, following the guidelines and regulatory standards of resolutions 466/2012 and 510/2016 of the Brazilian National Health Council, and was conducted using secondary data sources, without the need for an Informed Consent Form. All the data analyzed is publicly available on the internet, and according to Brazilian legislation (Resolution No. 510/2016 of the Brazilian National Health Council), studies conducted exclusively with publicly available data do not require evaluation by an institutional review board. The data in this study was analyzed in aggregate form, without any form of individualization that could identify the professionals or the educational institutions they represent.

## RESULTS

Most of the dentistry courses surveyed were run by private institutions (87.0%), were semester-based (93.7%), and required five years to be completed (75.7%). Approximately 46.2% of them had a grade of 4 in the general concept, and 9.0% had a grade of 5. The mean number of openings authorized for annual student admission was approximately 126 per course, and the mean length of time the courses had been in existence was 16.6 years, with a median of 6.2 years. The average workload was 4,501 hours (ranging from 3,780 to 12,300 hours) (Table 1).

The survey found that during the data collection period, 54.9% of the course coordinators' CVs were last updated more than six months ago. Around 53.0% of the course coordinators were male, the vast majority of them (94.2%) had a degree in dentistry, and the mean period of training was  $21.8 \pm 9.9$  years (Table 2). In addition, around 81.2% of the coordinators had at least one specialization, with 63.0% being specialized in specific fields of dentistry, 0.7% in legal

dentistry, and 0.4% in bioethics. Approximately 89.0% of the participants had already concluded a master's degree program, with 67.3% in dentistry or in specific dental fields (such as endodontics, periodontics, pediatric dentistry, stomatology, among others), and less than 1.0% in legal dentistry and deontology. Regarding PhD courses, 52.0% of the coordinators had completed them, of which 39.0% were in specific fields of dentistry (Table 2).

The average time working as a professor was 13.4 years and the average time working as a course coordinator was approximately 5 years. It is worth noting that not all CVs had updated records or provided this information clearly. In the CVs of 11.7% of the coordinators, there was a record of current – or previous – teaching activity in subjects related to deontology and/or ethics and/or bioethics. In 13.5% there was a record of participation – past or present – in a Research Ethics Committee (REC) (Table 2).

In 3.8% of the CVs participation in research projects related to ethics and/or bioethics was mentioned, and in 2.0% participation in extension projects in this same field was mentioned. In 6.1% of the CVs there were publications of articles related to ethics and/or bioethics, and in 1.8% the publication of books or book chapters in this field was mentioned. The average number of records of published articles was 12.7 articles, and this average dropped to 0.21 articles when it came to publications specifically on the theme of ethics and/or bioethics (Table 2).

Comparing the information on ethics/bioethics in the coordinators' CVs and the characteristics of the undergraduate courses, it was possible to note that the prevalence of coordinators with research projects, extension projects, and publications related to ethics/bioethics was higher in free courses ( $p < 0.05$ ). The register of participation in RECs was more prevalent among the coordinators of free courses which were held annually. Coordinators of courses rated 4 and 5 had more recorded participation in extension projects in ethics and bioethics (Table 3).

A longer period of training was associated with a higher rate of participation in RECs ( $p < 0.05$ ). Older courses had a higher number of coordinators with research and extension projects in ethics/bioethics, articles published on this theme, and participation in RECs. Longer experience as a professor was also associated with more registered extension projects in ethics/bioethics, other publications on this theme, and participation in RECs (Table 3).

**Table 1.** Characterization of undergraduate dentistry courses at Brazilian higher education institutions.

<b>Variables</b>	<b>n</b>	<b>%</b>
<i>Course Concept</i>		
2	1	0.2%
3	147	33.0%
4	206	46.2%
5	40	9.0%
No information	52	11.7%
<i>Free of charge</i>		
No	388	87.0%
Yes	58	13.0%
<i>Frequency</i>		
Yearly	26	5.8%
Half-yearly	418	93.7%
No information	2	0.4%
<i>Completion time in years</i>		
4.00	83	18.6%
4.50	21	4.7%
5.00	337	75.7%
5.50	1	0.2%
6.00	2	0.4%
No information	2	0.4%
	<b>Mean</b>	<b>Standard deviation</b>
<i>Authorized openings</i>	126.34	71.80
<i>Minimum workload</i>	4501	906
<i>Operating time</i>	16.64	23.24

**Table 2.** The profile of dentistry course coordinators at Brazilian higher education institutions.

<b>Variables</b>	<b>n</b>	<b>%</b>
<i>Sex</i>		
Male	237	53.1%
Female	209	46.9%
<i>Graduation</i>		
Dentistry	420	94.2%
Healthcare field	11	2.5%
Other fields	15	3.4%
<i>Specialization</i>		
No	84	18.8%
Yes	361	81.2%
<i>Number of specializations</i>		
0	84	18.8%
1	201	45.1%
2	111	24.9%
3	35	7.8%
4 or more	15	3.3%
<i>Field of specialization</i>		
Dentistry	281	63.0%
Public health/Collective health	63	14.1%
Legal dentistry	3	0.7%
Bioethics	2	0.4%
Education	51	11.4%
Management/Administration	17	3.8%
Others	56	12.6%
<i>Master's Degree</i>		
No	47	10.5%
Yes	399	89.5%
<i>Master's Field</i>		
Dentistry	300	67.3%
Public health/Collective health	31	7.0%
Legal dentistry	3	0.7%
Education	7	1.6%
Others	63	14.1%
<i>PhD</i>		
No	214	48.0%
Yes	232	52.0%
<i>PhD Field</i>		
Dentistry	174	39.0%
Public health/Collective health	12	2.7%
Education	1	0.2%
Others	45	10.1%
<i>Professor of Ethics/Bioethics</i>		
No	394	88.3%
Yes	52	11.7%
<i>Research Projects in Ethics/Bioethics</i>		
No	429	96.2%
Yes	17	3.8%

Continues

		Continuation
<i>Extension projects in Ethics/Bioethics</i>		
No	437	98.0%
Yes	9	2.0%
<i>Articles in the field of Ethics/Bioethics</i>		
No	419	93.9%
Yes	27	6.1%
<i>Other publications in the field of Ethics/Bioethics</i>		
No	438	98.2%
Yes	8	1.8%
<i>Participation in Research Ethics Committee</i>		
No	386	86.5%
Yes	60	13.5%
	<b>Mean</b>	<b>Standard deviation</b>
<i>Time working as a coordinator (in years)</i>	4,89	5.05
<i>Time working as a professor (in years)</i>	13,35	13.87
<i>Number of published articles</i>	12,77	22.40
<i>Number of articles in bioethics</i>	0,21	2.04
<i>Time since the CV was last updated (in days)</i>	421,05	751.29

## DISCUSSION

The outdated status of the Lattes CVs – more than half of them had not been updated within the last six months – can be considered a limiting factor in the research, as it compromises information regarding the level of academic qualification, the number of scientific publications, and the fields of interest for research and extension.

According to the CVs analyzed, 53.3% of the coordinators were male. The results also showed that 94.2% of the coordinators were dentistry graduates, which is in line with the criteria established by the *Anísio Teixeira* National Institute for Educational Studies and Research (NIESR), which rates courses coordinated by professionals with a degree in the same field as the course they are coordinating as better<sup>12</sup>.

Most coordinators (81.2%) had at least one specialization, and 63.0% of them were in specific fields of dentistry. This data corroborates a survey of course coordinators at an institution in the countryside of Minas Gerais, which showed that coordinators generally specialize in the same field as their undergraduate degrees<sup>11</sup>.

At the time of data collection, 89.5% of the participants had already completed a master's degree program and 52.0% had completed a PhD program. These results are higher than those found in the study carried out by Ferrari and Nascimento (2014)<sup>11</sup>, who found that 38.0% of the coordinators had a master's degree and 25.0% had a PhD. According to the literature, a master's or PhD can be considered an important requirement for course coordinators, as they will be working with professors who probably have this level of qualification<sup>13</sup>.

The average time working as a coordinator was approximately five years, with 71.2% having been in the position for five years or less. It is worth noting that the large number of tasks to be carried out by coordinators results in work overload<sup>14,15</sup>, as these professionals usually accumulate administrative, teaching, and social practice roles and, for this reason, being able to conciliate multiple activities has also been described as an important condition for the professionals' and the course's success<sup>11</sup>. The average time working as a professor was 13.4 years, which is in line with the study carried out by Secco and Pereira (2004)<sup>16</sup> with the coordinators of dentistry courses in the state of São Paulo, which showed that most (92.31%) of the course coordinators had been working as professors for more than 12 years.

**Table 3.** The association between the ethical/bioethical profile and the characteristics of the courses and the training profile of the course coordinators.

Variables	Ethics professor			Research project			Extension project			Articles			Other publications			Ethics committee		
	No	Yes	p	No	Yes	p	No	Yes	p	No	Yes	p	No	Yes	p	No	Yes	p
<i>Free of charge</i>																		
No	343 (88.4%)	45 (11.6%)	0.917*	377 (97.2%)	11 (2.8%)	0.015**	384 (99.0%)	4 (1.0%)	0.003**	370 (95.4%)	18 (4.6%)	0.004**	384 (99.0%)	4 (1.0%)	0.012**	341 (87.9%)	47 (12.1%)	0.032*
Yes	51 (87.9%)	7 (12.1%)		52 (89.7%)	6 (10.3%)		53 (91.4%)	5 (8.6%)		49 (84.5%)	9 (15.5%)		54 (93.1%)	4 (6.9%)		45 (77.6%)	13 (22.4%)	
<i>Frequency</i>																		
Yearly	23 (88.5%)	3 (11.5%)	1.000*	25 (96.2%)	1 (3.8%)	1.000**	25 (96.2%)	1 (3.8%)	0.422**	23 (88.5%)	3 (11.5%)	0.204**	24 (92.3%)	2 (7.7%)	0.074**	18 (69.2%)	8 (30.8%)	0.015*
Half-yearly	369 (88.3%)	49 (11.7%)		402 (96.2%)	16 (3.8%)		410 (98.1%)	8 (1.9%)		394 (94.3%)	24 (5.7%)		412 (98.6%)	6 (1.4%)		366 (87.6%)	52 (12.4%)	
<i>Course concept</i>																		
2 and 3	133 (89.9%)	15 (10.1%)	0.460*	143 (96.6%)	5 (3.4%)	0.884**	148 (100.0%)	0 (0.0%)	0.027**	141 (95.3%)	7 (4.7%)	0.681**	148 (100.0%)	0 (0.0%)	0.302**	133 (89.9%)	15 (10.1%)	0.135*
4 and 5	215 (87.4%)	31 (12.6%)		237 (96.3%)	9 (3.7%)		238 (96.7%)	8 (3.3%)		232 (94.3%)	14 (5.7%)		242 (98.4%)	4 (1.6%)		208 (84.6%)	38 (15.4%)	
<i>Gender</i>																		
Male	210 (88.6%)	27 (11.4%)	0.852*	228 (96.2%)	9 (3.8%)	0.987*	233 (98.3%)	4 (1.7%)	0.740**	225 (94.9%)	12 (5.1%)	0.350*	232 (97.9%)	5 (2.1%)	0.728**	201 (84.8%)	36 (15.2%)	0.252*
Female	184 (88.0%)	25 (12.0%)		201 (96.2%)	8 (3.8%)		204 (97.6%)	5 (2.4%)		194 (92.8%)	15 (7.2%)		206 (98.6%)	3 (1.4%)		185 (88.5%)	24 (11.5%)	
<i>Time since graduation ***</i>																		
	21.5 (14.0-29.0)	19.0 (15.0-26.0)	0.234	21.0 (14.0-28.0)	19.0 (15.0-32.0)	0.704	21.0 (14.0-28.0)	21.0 (19.0-29.0)	0.278	21.0 (14.0-28.0)	19.0 (15.0-25.0)	0.580	21.0 (14.0-28.0)	28.0 (18.5-38.0)	0.081	20.0 (14.0-28.0)	25.0 (18.0-30.0)	0.014
<i>Course duration time (in years) ***</i>																		
	6.5 (2.7-20.9)	4.9 (2.3-23.1)	0.704	6.4 (2.6-20.5)	21.4 (3.5-61.6)	0.043	6.4 (2.5-20.7)	32.0 (6.4-67.6)	0.010	6.4 (2.5-20.5)	9.4 (4.5-51.2)	0.023	6.4 (2.4-20.6)	18.3 (12.5-24.4)	0.062	5.3 (2.4-20.4)	16.4 (4.2-44.8)	0.001
<i>Time working in coordination (in years) ***</i>																		
	3.0 (2.0-6.0)	2.0 (1.0-4.0)	0.096	3.0 (2.0-6.0)	4.0 (3.0-6.0)	0.124	3.0 (2.0-6.0)	4.0 (2.0-5.0)	0.500	3.0 (2.0-6.0)	2.5 (1.0-4.0)	0.114	3.0 (2.0-6.0)	4.0 (2.5-4.0)	0.886	3.0 (2.0-6.0)	3.0 (2.0-6.0)	0.901
<i>Time working as a professor (in years) ***</i>																		
	11.0 (5.0-19.0)	11.5 (6.0-15.5)	0.764	11.0 (5.0-18.0)	13.0 (8.0-22.0)	0.116	11.0 (5.0-18.0)	14.0 (13.0-23.0)	0.026	11.0(5.0-18.0)	13.0(8.0-23.0)	0.116	11.0(5.0-18.0)	15.5(13.0-35.5)	0.015	10.0(5.0-17.0)	15.5(9.0-23.5)	<0.001

\*Pearson's Chi-Squared Test \*\* Fisher's Exact Test \*\*\* Mann Whitney test



The data found also showed that 3.8% of the CVs analyzed mentioned some form of training in the field of management, which corroborates studies carried out with managers of academic units at a Federal University in the Midwest region of Brazil<sup>17</sup>, and on the Profile of Managers at the Federal Institute of Minas Gerais<sup>15</sup>, which also found that most managers had no training in management, whether it was a specialization or a postgraduate degree. It should be emphasized that training in management fields, although not a prerequisite for holding the position, has been pointed out as important for improving performance in the role, since the development of managerial skills is intrinsic to the position<sup>18</sup>. Adding subjects to the curriculum of undergraduate courses that cover management issues could be an interesting alternative to consider in order to familiarize professionals with management as early as undergraduate school, since in addition to positions coordinating undergraduate courses, dental surgeons have also been holding managerial positions in public and private healthcare services.

The management of a higher education course, although similar to the management of other types of companies, has its own particularities and objectives that set it apart from other organizations<sup>19</sup>, as undergraduate courses can be considered a product being offered, while at the same time representing a service being provided<sup>13</sup>. The reflection of Delfino et al. (2008)<sup>9</sup> about the particularities that distinguish educational institutions from other companies is relevant, and the fact that it is difficult to measure the result of a higher education product, as their responsibility goes beyond technical-scientific training, since, as these institutions deal with young people still undergoing training, they also need to be mindful of and reflect upon the cultural and social training they offer to their students. For Demo (2006)<sup>20</sup>, the objective of the training is, above all, to form citizens who are aware of their importance and carry out their duties in a way that brings benefits to people and communities.

Regarding the importance of dental surgeons to society, Secco and Pereira (2004)<sup>16</sup> considered that, in order to expand the recognized technical quality of Brazilian dentistry to the entire population, thereby leading to the universalization of oral health, changes in training policies would be necessary, with a new priority placed on the fields of knowledge as well as new teaching-learning strategies to guide how the new professionals should be and act. It is worth encouraging the promotion of a dignified life, through the recognition and protection of human dignity, both on an individual and collective level, following the premises of ethics and bioethics<sup>21</sup>.

In addition to the commitment to respecting dignity, ethical competence implies the ability to perceive moral aspects in daily situations, to define ethical problems – and all the dimensions they can assume – and to analyze them critically, based on theoretical references and the consequences of possible decisions, in addition to making decisions that have plausible arguments and are ethically justifiable<sup>22</sup>. A distinction should be made here between the terms 'Morals' and 'Ethics', which, although usually used synonymously, differ in their definitions: 'Morals' refers to the "formation of character in daily life", and 'Ethics' refers to the "philosophy that reflects upon the formation of character"<sup>23</sup>.

Decision-making is a constant part of any professional's daily life, and it would be no different in management positions. The didactic-pedagogical management of a course involves constant decision-making<sup>15,24</sup>, and this competence is among the most important skills of a manager<sup>18</sup>. In fact, a study carried out by Marra and Melo (2005)<sup>14</sup>, on the daily management practices of heads of department and coordinators of undergraduate and postgraduate courses at a federal university pointed out that, according to 40.0% of the interviewees, university managers commit a substantial part of their time to problem-solving, which encompasses both the administrative field and the personal problems of professors, students, and employees.

Considering that dealing with students and peers has been mentioned as the most frequent specific function for the position of coordinator<sup>11,15,17,25</sup>, it is essential for these professionals to learn how to deal with a plurality of ideas and a wide range of issues, and to be aware of ethical and bioethical aspects in all their decisions – in addition to the technical aspects<sup>19</sup>. This is one of the reasons why knowledge of bioethics is essential in all functions.

Regarding the participation of coordinators in RECs, no record of participation was found in the curriculum of 86.5% of the coordinators. Although this is a high percentage, it is not too far off from what was found in a study that analyzed the academic profile of bioethics professors in postgraduate courses, which pointed out that in most CVs (78.1%) there



was no record of participation in RECs<sup>26</sup>. For the author, participation in such committees is important as it allows professionals to be constantly in contact with ethical conflicts, which provides them with professional experience in discussing such conflicts<sup>26</sup>.

Coordinators have a unique importance in the training process of graduates, and this is partly due to the legitimacy that these professionals have in drafting the PPP and conducting and monitoring the course's teaching plan<sup>16</sup>, especially after the publication of the 2002 NCG, which granted autonomy to each institution to draft their own PPP, adapting their training to the fast-changing nature of knowledge<sup>27</sup>. Precisely for this reason, every PPP is subject to revision and modification<sup>13</sup>. However, despite the recognized importance of coordinators in students' education, this responsibility cannot be attributed exclusively to these professionals, since in addition to an education program that encompasses subjects on ethical, bioethical, and humanistic concepts, it is essential for these elements to also be known and practiced by all those responsible for the educational process. In order for higher education to – in fact – comply with the guidelines of the 2002 NCG, which were updated in 2021<sup>3</sup>, an isolated change in pedagogy is not enough, this change must also be social, so that students acquire and perpetuate positive habits<sup>28-30</sup>.

In this sense, it is believed that a broadened perspective and training in this field could lead to internal debates within the course that would not only enable a more plural, democratic, and critical discussion, but also the appreciation of moral and ethical competences as essential to the dental surgeon's profession, which could be correlated to the coordinator's training and the promotion of a PPP that makes these competences a reality.

With the data collected, it is not possible – nor was it the intention of the present study – to make an inference associating the managers' training in ethics and/or bioethics with the students' training as recommended by the NCG. However, it is worth noting that, regardless of the field of specialization and academic performance of these professionals, they need to maintain an expanded view towards the necessary ethical/bioethical training of students, so that, in addition to their recognized technical excellence, future professionals are also recognized for their ethical competence.

The present study has limitations. In addition to the aforementioned outdated nature of some of the CVs analyzed, it should be noted that the nature of the study, which is cross-sectional, only represents the reality of the period studied and does not allow causal associations to be made.

## CONCLUSION

The present study provided a national analysis of the academic and professional profile of the coordinators of dentistry courses. It found that most coordinators have specialization and master's degrees, and just over half of them have a PhD. It was also found that few have any training in the fields of ethics and/or bioethics, or are interested in extension and research projects in these fields, which can be demonstrated by the small number of publications on this theme.

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