# Who are the students of the Dentistry program at ULBRA in Canoas/RS, what they think and what they expect of the job market: A cross-sectional study

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#### ABSTRACT

Dentistry programs should prepare professionals with a generalist profile, having biological, scientific, technical, social and humanistic training. They should be trained for the reality of the job market and to practice Dentistry in both public and private settings, in order to provide leadership in the community in which they are placed. **Objective:** This study aims to analyze the socio-demographic profile, satisfaction with the program, self-evaluation of academic performance and expectations of the job market of students entering and exiting the Dentistry program of ULBRA/Canoas. Methodology: This is an observational, cross-sectional study conducted using a questionnaire with different questions for students entering and exiting the program in 2015. A questionnaire was developed with both open and closed objective, multiple-choice questions. It was given to 71 (86.5%) students enrolled in the program. Results: Most of the subjects are female, single, childless and between the ages of 17 and 36 years. Most chose Dentistry as a profession because they always liked or were interested in the health field. It was observed that the exiting students worked more in the areas of General Dentistry (90.4%) and Periodontics (77.0%) during their academic time, and intended to work in private practice (49.0%) and in the Unified Health System (65.0%). Conclusion: It was concluded that the profile of the entering and the exiting students is diverse, also that the students perceive that the greatest difficulty in the practice of Dentistry is the insertion and saturation of the job market.

Keywords: Dentistry Education; Dentistry Students; Job Market.

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Stomatos	Canoas	Vol. 22	Nº 43	p.44-55	Jul./Dec. 2016
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# Quem é, o que pensa e qual a expectativa para o mercado de trabalho dos estudantes do Curso de Odontologia da ULBRA, em Canoas, RS: um estudo transversal

#### RESUMO

Os cursos de Odontologia devem formar profissionais de perfil generalista, com formação biológica, científica, técnica, social e humanística; capacitados para a realidade do mercado de trabalho e para o exercício da Odontologia em âmbito privado e público, a fim de atuarem com liderança na comunidade em que estiverem inseridos. Objetivo: Este estudo objetiva analisar o perfil sócio demográfico, a satisfação com o curso, a autoavaliação do desempenho acadêmico e a expectativa sobre o mercado de trabalho, em estudantes ingressantes e formandos do curso de Odontologia da ULBRA/Canoas. Metodologia: Trata-se de um estudo observacional, transversal realizado através de um questionário com diferentes perguntas para os estudantes ingressantes e formandos do curso no ano de 2015. Um questionário foi formulado com perguntas objetivas fechadas e abertas de múltipla escolha e aplicado a 71 alunos (86,5%), regularmente matriculados no Curso. Resultados: A maior parte dos sujeitos é do sexo feminino, solteiros, sem filhos e com idade entre 17 e 36 anos. A maioria escolheu a Odontologia como profissão, pois sempre gostou ou se interessou pela área da saúde. Foi possível observar que os alunos formandos atuaram mais nas áreas de dentística (90,4%) e periodontia (77,0%) durante o período acadêmico e pretendem trabalhar em consultório particular (49,0%) e no Sistema Único de Saúde (65,0%). Conclusão: Concluiu-se que o perfil dos ingressantes e dos formandos é diversificado e pode se concluir que os alunos têm como percepção que a maior dificuldade no exercício da Odontologia é a inserção e saturação do mercado de trabalho.

Palavras-chave: Educação em Odontologia: Estudantes de Odontologia: Mercado de Trabalho.

#### **INTRODUCTION**

Dentistry programs should prepare professionals with a generalist profile and orientation, with a solid biological, scientific, technical social and humanistic background. These programs should train them to act in public and private health systems, understand the reality of the job market and exercise leadership in the communities into which they are placed. (1)

To do this, the National Curricular Guidelines were established for Dentistry program and their guidance is that universities follow a curriculum such that the graduate has the characteristics cited above. This enables a change in the paradigm of academic preparation.

In addition, knowing the profile of the students in the ULBRA Dentistry Program involves knowing their reasons for choosing the program, their expectations related to this and to the future profession, in order to contribute to the discussion about the role of the university in the preparation of human resources. (1)

In general, institutions of higher education still have difficulty in preparing professionals having a humanistic, critical and thoughtful vision, and with the preparation

to lead in the community. This is despite the public sector constituting a broad area of work for the Dentist. (2)

Currently, the reflection about higher education, especially regarding the preparation of health professionals, has occupied an important spot in the government agenda. The creation of regulatory and evaluative mechanisms of institutions of higher education (IHE) and the definition of curricular guidelines for health programs, together with the multiple induction initiatives for change proposed by the Ministry of Education, has meant the introduction of new issues and challenges for the preparatory centers in Brazil. (3)

Thus, it was possible to study how students are taking advantage of the courses available in the Dentistry Program at ULBRA/Canoas and what limitations and possibilities they recognize. Based on a census taken between those entering and exiting the program, it will also be possible to insert the student into the critical evaluation of their academic journey, finally corroborating possible changes to improve the instructional system. This study was also used as a tool to define the profile of the Dentistry Program student, and it showed what their real expectations are of the imminent job market.

# METHODOLOGY

This is an observational, cross-sectional study conducted with students from the Dentistry program of the ULBRA, entering and exiting in 2015, in the city of Canoas in the state of Rio Grande do Sul, Brazil. The population of the study was composed of students regularly enrolled in the first and tenth semesters, and voluntary participants.

Among the inclusion criteria for participation in the study were being a student from the first and tenth semester, and agreeing to participate and sign the terms of free and informed consent. The data were obtained from a questionnaire with open and closed objective questions. Data collection began after receiving approval for the research project from the Committee for Ethics in Research with Human Begins from the Lutheran University of Brazil (decision no. 1.244.692). The questionnaires and the terms of consent, following decision CNS 466/2012, were filled out by the students at the university during the class period with the permission of the professors. It was anticipated that questionnaires would be delivered to 95 students; however, 13 questionnaires were not delivered (students absent during the study). Of the 82 questionnaires delivered, 71 (86.5%) students returned the self-applied questionnaires were not returned, 11 students refused to participate in the study and 13 students were not found after three attempts.

Data collection was conducted using a questionnaire composed of questions distributed among four dimensions: socioeconomic profile, limitations and possibilities of the program, self-evaluation of performance, expectations of the job market and post-graduation. The questionnaires were designed based on studies with similar methodology. (7-9)

The first dimension deals with the socioeconomic profile, with the following variables: name, age, date of birth, sex, marital status, children, city and state of origin,

city of residence, completion of another undergraduate program, family income, estimated value of the costs of the program, tuition payment, means of entering the university, graduation from high school, reason for choosing Dentistry as a profession, presence of dentists in the family, information about parents and those responsible for the family income.

The second dimension deals with the limitations and possibilities of the program, with the following variables: satisfaction with the program, satisfaction with the courses, satisfaction with the physical structure and materials used, satisfaction with the attention received from the staff, satisfaction with the professors, perception of the training profile of the program, classification of theoretical and practical classes, classification of extracurricular activities.

The third dimension deals with the students' self-evaluation of their performance in the program, with the following variables: courses that helped more the clinics, general performance throughout the program, the areas in which the student is most prepared to work, if the student performed any tutoring, if the student participated in extension or scholarship projects, and if the student took any elective classes.

The fourth dimension addressed topics about expectations of the job market, with variables related to: continuing education, where the student intended to work or practice, if the exiting student considered the education received appropriate for performing preventive educational activities in their practice, the area with most work in the dentistry market, the areas where the graduates thought they would find the most work, the greatest difficulties they would find in professional practice, the skills and abilities of a Dentist.

The data from the participants in the study were transcribed and submitted to statistical analysis, using the STATA, version 12.0 (Stata Corp., College Station, TX, USA), software. Descriptive analyses (n and %) were performed on the variables of the present study.

# RESULTS

By analyzing the questionnaires, the results of the present study were divided into four dimensions: socioeconomic profile, limitations and possibilities of the program, self-evaluation of performance during the academic period and expectations of the job market.

# Socioeconomic Profile of the Students

Of the total of 71 students who responded to the questionnaires, the majority is female sex (82.0%), single (90.0%) and childless (91.0%). Of the total of all students, 45.0% come from cities in the metropolitan region of Porto Alegre and 51.0% reside in the same region.

The age of the 71 students who participated in the study ranged from 17 to 36 years, with a mean age of 22.60 years (SD  $\pm$  3.90) and with a median (P25-P75) of 22 (18-30). The family monthly income ranged from R\$1000.00 to R\$40,000.00, with a mean of R\$7947.00 (SD  $\pm$  R\$8445.00) and a median (P25-P75) of R\$4250.00 (R\$3000.00-R\$20,000.00).

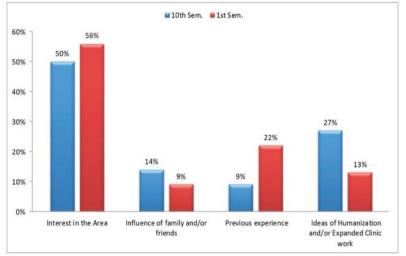
The majority of the students in the tenth semester have their monthly fees paid by parents/other family (45.0%), while the students in the first semester have their monthly fees paid by student loans (59.0%). Most of the students entered the university through the *Vestibular* (83.0%), while the rest (17.0%) entered through the ENEM or transferred, and finished high school in public schools (64.0%), as shown in Table 1.

When asked why they had chosen Dentistry as a profession, some students responded that it was because they had always liked or were interested in the health area; other students responded that it was through the influence of family or friends; and, a minority had already had previous experience in Dentistry, such as working in dental clinics, programs in oral health or had worked as technicians in dental prosthodontics, as shown in Figure 1.

		%
Sex	71	
Female	58	82.0
Male	13	18.0
Age (years)	71	
17-21	28	39.0
22-25	28	39.0
>25	15	22.0
Marital Status	71	
Single	64	90.0
Married/Stable Union	7	10.0
Children	71	
Yes	6	9.0
No	65	91.0
City of Origin	71	
Canoas	4	6.0
Porto Alegre	10	14.0
Metropolitan Region	32	45.0
Countryside (of the state)	19	27.0
Other States	6	8.0
City of Residence	71	
Canoas	17	24.0
Porto Alegre	11	16.0
Metropolitan Region	36	51.0
Countryside (of the state)	7	9.0

TABLE 1 – Distribution of students from the 1<sup>st</sup> and 10<sup>th</sup> semesters in relation to individual and family socioeconomic variables (n=71), Lutheran University of Brazil, Canoas Campus, 2015.

Variables	N	%
Monthly Payment *	70	
The Student Him/Herself	2	3.0
Responsible (Parent)/Other	27	39.0
Student Loans	31	44.0
Government Program	10	14.0
Family Dentist*	70	
Yes	17	24.0
No	53	76.0
Form of Entry*	70	
Vestibular	58	83.0
ENEM/transfer	12	17.0



\*Number of incomplete responses. Education of Youths and Adults.

FIGURE 1 – Reasons for choosing the Dentistry profession among students of the first and tenth semesters of the Program at ULBRA, 2015.

# Limitations and Possibilities of the Dentistry Program

Upon evaluating the questionnaires of entering and exiting students, it was possible to observe that, in relation to Satisfaction with the Dentistry Program at ulbra, nearly all students are fully satisfied with the program. This represents 92.0% Satisfaction, 7.0% Somewhat Satisfied and only 1.0% Somewhat Unsatisfied. As for the Training Profile of the Program, most of the students classified the program as Generalist (75.0%).

As for the courses completed during the program, the exiting students classified the courses of Pedodontics such as Children's Clinic I (45.0%), Children's Clinic II (49.0%), Children's Clinic III (45.0%) and Dentistry and Society IV (26.0%) as the best courses completed. As for the courses unsatisfactorily completed during the undergraduate period,

the students identified the courses Integral Clinic V (43.0%), Prosthodontic Techniques (23.0%) and Endodontic Techniques (20.0%), as shown in Table 2.

Variables	Ν	%
Satisfaction with the Physical Structure	71	
Somewhat Satisfied	3	4.0
Satisfied	30	42.0
Very Satisfied	38	54.0
Performance of the Professors	71	
Somewhat Unsatisfied	1	1.0
Somewhat Satisfied	1	1.0
Satisfied	41	58.0
Very Satisfied	28	40.0
Theoretical Classes	71	
Excellent	10	14.0
Good	48	68.0
Regular	13	18.0
Practical Classes	71	
Excellent	25	35.0
Good	39	55.0
Regular	7	10.0
Extra-curricular Activities*	69	
Excellent	20	29.0
Good	31	45.0
Regular/Poor/ Very poor	18	26.0
Courses Satisfactorily Completed**(m)	31	
Children's Clinic I	14	45.0
Children's Clinic II	15	49.0
Children's Clinic III	14	45.0
Dentistry and Society IV	8	26.0
Dentistry	6	20.0
Courses Unsatisfactorily Completed**(m)	30	
Integral Clinic V	13	43.0
Prosthodontic Techniques I	7	23.0
Prosthodontic Techniques II	7	23.0
Endodontic Techniques	6	20.0
Attention from the Professors in Clinical Practice**	31	
Excellent	4	13.0
Good	15	49.0
Regular	11	35.0
Poor	1	3.0
Suggestions for the Dentistry Program	19	
Increase the Practical Course Hours	5	26.0
Extension Activity in the Communities	2	11.0
Materials for Students with Loan Programs	1	5.0
Night Program	1 7	5.0
Clinical Internships in the Specialties	-	37.0
Teaching Learning Process	3	16.0

TABLE 2 – Limitations and Possibilites of the Dentistry Program at ULBRA (2015/02).

\*Number of incomplete responses. \*\*Questions answered only by exiting students. (m) Open questions with more than one response option.

#### **Self-evaluation of Academic Performance**

When dealing with academic performance throughout the program, 67.0% of the students classified their performance as good. Exiting students reported that during the internship clinics, the procedures performed most were in the areas of Dentistry (90.4%), Periodontics (77.0%), Prosthodontics (58.0%), Surgery (36.0%) and Endodontics (25.0%). When compared to entering students, they expect to work more in the areas of Dentistry (63.0%) and Orthodontics (53.0%).

Regarding the tutoring offered within the program, 92.0% said they have participated or intend to participate in the tutoring. As for the extension projects, 92.0% participated or intend to participate. As for the scholarships, 57.0% of the students did not participate or do not intend to participate.

### **Expectations of the Job Market**

Even though all the students who participated in the study intend to specialize, Masters (37.0%) and Doctoral (36.0%) in the area of Dentistry. When the students were asked if they believed doing graduate study to be critical, 88.0% responded in the affirmative, as shown in Table 3.

Most of the students reported that they would like to work in the Unified Health System (65.0%), although not exclusively, as they also intend to work in private practice (49.0%).

When the exiting students were asked about the areas in which they feel best prepared to work in the job market, the areas of Dentistry (97.0%), Periodontics (74.0%), Pedodontics (71.0%) and Public Health (58.0%) were identified. As for the areas they believed they were most likely to work in the job market, the areas of Dentistry (97.0%), Endodontics (87.0%), Periodontics (84.0%) and Public Health (71.0%) stood out.

As for their labor practice, the students felt the biggest job market to be in Private Practice (42.0%). Also, the Unified Health System was mentioned by 20.0% of the sample, as shown in Table 3.

For 43.0% of the students, the main tool necessary for working in the job market is the set of interpersonal skills (kindness, independence, good communication with the patient, courtesy and the promotion of health), as shown in Table 3.

TABLE 3 – Distribution of Students from the 1<sup>st</sup> and 10<sup>th</sup> Semesters in relation to the qualitative variables related to the expectations and Dentistry (n=71), Lutheran University of Brazil, Canoas Campus, 2015.

Variables	n	%
Believe doing graduate study to be important*	68	
Yes	60	88.0
No	8	12.0
Preferred Field of Dentistry Practice*	69	
Private Office	29	42.0
Clinical Dentistry	26	38.0
Unified Health System	14	20.0
Limitations to working practice	33	
Scenario and Job Market	27	82.0
Ethics in Practice	1	3.0
High cost of Activities	1	3.0
Complex Procedures	1	3.0
Lack of Clinical Experience	2	6.0
Patient Adherence to Treatment	1	3.0
Tools of Practice*	35	
Interpersonal Skills	15	43.0
Technical Skills	13	37.0
Performing Prevention and Promotion of Health	2	6.0
Competence for General Practice	5	14.0

\* Number of incomplete responses.

# DISCUSSION

From the results obtained, intended to identify the profile of the students, some sociodemographic results were among the findings of other studies conducted in universities in the state of Rio Grande do Sul – UFRGS. For example, it is possible to observe the process of feminization of Dentistry Programs. (4)

Of the students in the Dentistry Program at ULBRA who participated in this study, 64.0% finished high school in public schools and only 35.0% in private schools. Thus, it can be seen that the students who finished high school in private schools had more access to public higher education. In studies conducted at the University of Bahia and at Rio Grande do Sul, most of the students finished high school in private schools. (5,6)

In studies conducted in developed countries such as Finland, Australia and Denmark, the students gave altruistic reasons for choosing the profession. (7) However, in the present study, the students gave the main choice for the program as the fact that they simply liked it and were interested in the area of health.

The results showed that 100% of the students intend to obtain specialization and 88.0% believe it to be critical to do graduate study. Of the students from the University of Maranhao, 98.5% want to do graduate study, 39.5% want to be specialists and 10.6% want to get the Master's degree. (8)

When the issue is where the students from ULBRA intend to work after finishing the program, 49.0% intend to work in a private office and 65.0% in the Unified Health

System. This compares with the study conducted by the Federal University of Ceará with the students exiting from the Dentistry program: 47.0% are working in public service, 19.0% in a private company, 12.0% in a rented office and 6.9% in their own office. (9) This is a demonstration of the similarity in the Public Service between what the job market is reflecting and the expectations of the students, showing that soon after leaving the University the future dentists cannot have their own office.

Among the courses that the exiting students assess as having been satisfactorily completed are those of the clinical internship in Pedodontics, assistance in the Unified Health System and techniques of Dentistry. The students interviewed at the College of Dentistry of Bauru-USP reported that the courses that were best delivered were the techniques in Dentistry and Endodontics. When the students from Bauru refer to the courses unsatisfactorily completed, the courses of Orthdontics, Public Health and Prosthodontics (10) appear in the analysis. Comparing them with those of the present study, it is possible to see that the students report having unsatisfactorily completed the courses of Integral Clinic V, Techniques in Prosthodontics and Endocontics.

During the analysis of the data of students who are completing the Program, it was found that there was greater interest in the field of Public Health and related areas. This may lead to a discussion of which courses in Dentistry and Society allow the inclusion of students in the Unified Health System and when the reality and practice of the Unified Health System are the teaching objectives. An important component in their training, after the promulgation of the National Curricular Guidelines for the health area, is the National Reorientation Program of Professional Training in Health (Pro-Health), of the Ministries of Education and Health, which has the general goal to encourage changes in the training process, knowledge generation and providing of service to the population for a comprehensive approach to the health-disease process. (11)

#### FINAL CONSIDERATIONS

The students in the Dentistry Program of ULBRA have various profiles. Among them are a majority of the female sex (82.0%), single (90.0%), childless (91.0%) and, of the total of students, 45.0% live in the same region. The socioeconomic situation of the students showed an income ranging from 1000.00 to 40,000.00 reais, monthly.

Most of the students in the tenth semester have their monthly fees paid by their parents/other family members (45.0%), while the students in the first semester have their monthly fees paid by student loans (59.0%). The majority of all students entered the university through the *Vestibular* (83.0%), while the others entered through the ENEM or through transfer, and finished high school in public schools (64.0%).

When asked why they had chosen Dentistry as a profession, some students responded that it was because they had always liked, or were interested in the field of health. Other students responded that it was due to the influence of family or friends. A minority had had some prior experience in the area of Dentistry, such as working in dentistry clinics, programs as dental assistants, or as technicians in Dental Prosthetics.

The students have different, positive predominating opinions about the Dentistry Program of ULBRA. The main suggestion was to increase the course hours in practical activities, which could lead to an increase in the clinical experience. The students intend to work in the Unified Health System (65.0%) and divide their time with a private office. They believe that being a good general practitioner is one of the necessary skills of Dentists. As in studies conducted previously, among the greatest difficulties that they imagine finding in the practice of Dentistry is the heavy saturation of the job market, unfair competition and the self-devaluation of the Dentist.

In searching for change, this study may serve the Dentistry Program as ULBRA reviews its teaching-learning process and faces the issues identified by the students. Thus, they may become excellent professionals in the area of Dentistry, having the principal characteristics of a generalist preparation and training for the reality of the job market; and, for the practice of Dentistry in both the private and public domain. In this way, they may work as leaders in the communities in which they are located.

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