


**STATE PUBLIC UNIVERSITY IN THE INTERIOR OF THE COUNTRY: CRITICAL
APPROACH TO THE SOCIODEMOGRAPHIC PROFILE OF DENTAL
STUDENTS**

**UNIVERSIDADE PÚBLICA ESTADUAL DO INTERIOR DO PAÍS: ABORDAGEM
CRÍTICA DO PERFIL SOCIODEMOGRÁFICO DOS ESTUDANTES DE
ODONTOLOGIA**

**UNIVERSIDAD PÚBLICA ESTATAL EN EL INTERIOR DEL PAÍS:
APROXIMACIÓN CRÍTICA AL PERFIL SOCIODEMOGRÁFICO DE LOS
ESTUDIANTES DE ODONTOLOGÍA**

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ABSTRACT

The objective of this study was to evaluate the sociodemographic profile of Dental students enrolled at a state university in the interior of the northeast region, located in Paraíba. A structured questionnaire was applied to students from the first to tenth periods of the Dentistry Course at Campus VIII of UEPB containing sociodemographic questions regarding their origin. So that the students' cities of origin were divided by regions and states. A total of 192 students of legal age participated in the study, and data analysis was carried out using descriptive statistics. It was found that the vast majority of students came from the Northeast region, mainly from the state of Paraíba (68.8%), followed by Pernambuco (9.3%). The most prevalent cities in Paraíba where students came from were Campina Grande (n=27; 101.0 kilometers-km away), João Pessoa (n=11; 159.0km) and Bananeiras (n=8; 35.8km). The city of Araruna, home to Campus VIII, had only 3.2% (n=6) of students enrolled in the entire course, so that few students from the city were benefited. Other cities in Paraíba such as Guarabira (66.5km away), Cuite (60.0km) and Solânea (45.0km) presented six students from each on the course. Among the other Brazilian regions, the one that presented the most students in the Dentistry Course was the Southeast region, with no student coming from the South region of the country. The

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internalization of UEPB, with regard to the Dentistry Course, was more effective for students from neighboring cities than for students from the city where the Campus is located.

Keywords: Schools, Dental. Students, Dental. Public Policy.

RESUMO

O objetivo deste estudo foi avaliar o perfil sociodemográfico dos estudantes de Odontologia matriculados em uma universidade estadual do interior da região nordeste, localizada na Paraíba. Foi aplicado um questionário estruturado aos estudantes do primeiro ao décimo período do Curso de Odontologia do Campus VIII da UEPB, contendo questões sociodemográficas referentes à procedência. De modo que as cidades de origem dos estudantes foram divididas por regiões e estados. Participaram do estudo 192 estudantes maiores de idade, e a análise dos dados foi realizada por meio de estatística descritiva. Constatou-se que a grande maioria dos estudantes era proveniente da região Nordeste, principalmente do estado da Paraíba (68,8%), seguido de Pernambuco (9,3%). As cidades paraibanas com maior prevalência de estudantes provenientes foram Campina Grande (n=27; 101,0 km de distância), João Pessoa (n=11; 159,0 km) e Bananeiras (n=8; 35,8 km). A cidade de Araruna, sede do Campus VIII, teve apenas 3,2% (n=6) dos alunos matriculados em todo o curso, de modo que poucos alunos da cidade foram beneficiados. Outras cidades paraibanas, como Guarabira (a 66,5 km de distância), Cuité (a 60,0 km) e Solânea (a 45,0 km), apresentaram seis alunos de cada uma no curso. Dentre as demais regiões brasileiras, a que apresentou o maior número de alunos no Curso de Odontologia foi a região Sudeste, sem nenhum aluno oriundo da região Sul do país. A internalização da UEPB, no que se refere ao Curso de Odontologia, foi mais efetiva para alunos de cidades vizinhas do que para alunos da cidade onde o Campus está localizado.

Palavras-chave: Escolas, Odontologia. Estudantes, Odontologia. Políticas públicas.

RESUMEN

El objetivo de este estudio fue evaluar el perfil sociodemográfico de estudiantes de Odontología matriculados en una universidad estatal del interior de la región noreste, ubicada en Paraíba. Se aplicó un cuestionario estructurado a estudiantes del primero al décimo período del Curso de Odontología del Campus VIII de la UEPB, que contenía preguntas sociodemográficas sobre su origen. De esta manera, las ciudades de origen de los estudiantes se dividieron por regiones y estados. Participaron en el estudio 192 estudiantes mayores de edad, y el análisis de datos se realizó mediante estadística descriptiva. Se observó que la gran mayoría de los estudiantes provenían de la región noreste, principalmente del estado de Paraíba (68,8%), seguido de Pernambuco (9,3%). Las ciudades de Paraíba con mayor prevalencia de estudiantes fueron Campina Grande (n=27; 101,0 km de distancia), João Pessoa (n=11; 159,0 km) y Bananeiras (n=8; 35,8 km). La ciudad de Araruna, sede del Campus VIII, contó con tan solo el 3,2% (n=6) de estudiantes matriculados en todo el curso, por lo que pocos estudiantes de la ciudad se beneficiaron. Otras ciudades de Paraíba, como Guarabira (a 66,5 km), Cuite (a 60,0 km) y Solanea (a 45,0 km), presentaron seis estudiantes cada una en el curso. Entre las demás regiones brasileñas, la que presentó el mayor número de estudiantes en el Curso de Odontología fue la región Sudeste, sin estudiantes provenientes de la región Sur del país. La internalización de la UEPB, en lo que respecta al Curso de Odontología, fue más

efectiva para los estudiantes de ciudades vecinas que para los de la ciudad donde se ubica el Campus.

Palabras clave: Escuelas, Odontología. Estudiantes, Odontología. Políticas Públicas.

INTRODUCTION

The state of Paraíba (PB), located in the Brazilian Northeast region has a population of 3,974,495 inhabitants and one of the worst human development indexes (HDI) in Brazil (0.698), occupying the 21st position, ahead of only from the states of Bahia, Piauí, Pará, Amapá, Alagoas and Maranhão. The city of Araruna, headquarters of the Dentistry Course at Campus VIII of the State University of Paraíba (UEPB) has only 17,189 inhabitants and it is located in the north of Paraíba, 158.7km from the capital João Pessoa (population of 833,932 inhabitants), and the 101.0km from Campina Grande (population of 419,379 inhabitants), both being the two largest and most populous cities in the state (IBGE, 2022a).

In the last decades, the Brazilian Federal Higher Education Network has expanded its physical structures, through the Support for Restructuring and Expansion Plans of Federal Universities (REUNI) Program. Accompanying this expansion, UEPB also increased its number of campuses, distributed throughout the state of Paraíba. UEPB was founded in the city of Campina Grande (Campus I), but is also present in seven other cities in Paraíba: Lagoa Seca (Campus II), Guarabira (Campus III), Catolé do Rocha (Campus IV), João Pessoa (Campus V), Monteiro (Campus VI), Patos (Campus VII) and Araruna (Campus VIII), with different courses and it has been contributing to the educational and sociocultural development of Paraíba and also the Northeast region (PPC Odontologia, 2023, UEPB, 2023).

According to the National Register of Higher Education Courses and Institutions, Paraíba has 18 active Dentistry courses registered, which offer an average of 149.8 university places available per year. These Dentistry courses belong to two Federal Public Universities (UFCG and UFPB) and one State Public University (UEPB), the latter with two Dentistry Courses (Campus I and Campus VIII). The remaining 14 institutions in Paraíba offering Dentistry courses are private. Campus I of UEPB, in Campina Grande, headquarters of the University, offers 60 places per year and Campus VIII, located in the city of Araruna, offers 80 places per year for the Dentistry Course (Brasil, MEC, 2023).

Therefore, the purpose of this study was to observe the sociodemographic profile of students enrolled in the Dentistry Course at UEPB Campus VIII.

METHODOLOGY

Observational, cross-sectional study, carried out with students regularly enrolled in the Dentistry Course at Campus VIII of UEPB, with the aim of analyzing sociodemographic

data to verify their origin. A structured questionnaire was applied with questions regarding gender, race, family income, city of origin and period of the course under study. The population included all students of the Dentistry Course and the sample consisted of students who responded to the questionnaire and signed the Informed Consent Form (TCLE). Students of legal age were included and students who did not sign the Informed Consent Form were excluded. According to the period of the course studied, students were divided into: Pre-Clinical Period, from the first to fourth periods (P1-P4) and Clinical Period, from the fifth to tenth periods (P5-P10). The data were analyzed using descriptive statistics, using the Statistical Package for the Social Sciences (SPSS) version 26.0 (SPSS Inc., Chicago, USA). The research was approved by the Research Ethics Committee (CEP) of UEPB (CAAE 57334222.0.0000.5187) and respected all bioethical principles, in accordance with Resolution 466/12 of the National Health Council/Ministry of Health (CNS/MS) and the Declaration of Helsinki.

RESULTS

A total of 191 (77.9%) students participated in this research, out of 245 enrolled in the Course. There was an average of 21.3 students enrolled per period. The majority were female (65.6%), self-declared white (57.1%), with a family income above R\$3,637.00 (60.6%). Students were more concentrated in clinical periods, between the 5th and 10th periods (57.3%), with the majority coming from other cities (96.8%), as shown in Table 1. Table 2 shows the distribution of students categorized according to course entry and activities (pre-clinical and clinical periods).

Table 1 – Characterization of the sample of Dental students. Araruna, PB. Brazil, 2022.

Variables	Dental Students		Valid Sample/Excluded Sample
	n	%	
Gender			
Female	126	65.6	192/0
Male	66	34.4	
Incoming (R\$)			
1212.00* a 2424.00	32	17.0	188/5
2425.00 a 3636.00	42	22.3	
3637.00 a 4848.00	54	28.7	
Above 4849.00	60	31.9	
Period			
P1 - P4	82	42.7	192/0
P5 - P10	110	57.3	
City			
Araruna	6	3.2	191/1
Other	185	96.8	

Race/Ethnicity			
White	109	57.1	191/1
Black	9	4.7	
Brown Skin	71	37.2	
Other	2	1.0	

*R\$ 1212,00 = One Minimum Wage (MW). Source: The authors.

Table 2 - Characterization of the sample of Dental students according to the period studied. Araruna, PB. Brazil, 2022.

Variables	Pre Clinical Period (P1 - P4)		Clinical Period (P5 - P10)	
	n	%	n	%
Gender				
Female	50	61.0	76	69.1
Male	32	39.0	34	30.9
Incoming				
< 3 MW*	35	44.9	39	35.4
≥ 3 MW	43	55.1	71	64.5
City				
Araruna	4	4.9	2	1.8
Others	78	95.1	108	98.2
Race/Ethnicity				
White	47	57.3	62	56.9
Non White	35	42.7	47	43.1
Home				
Alone	37	45.1	23	20.9
With others	45	54.9	87	79.1

MW*: Minimum Wage. Source: The authors.

Regarding origin, the vast majority (90.1%) of students came from the Northeast region and no student came from the South region of Brazil (Table 3). The states that border Paraíba (Pernambuco, Rio Grande do Norte and Ceará) were those with the most students enrolled in the Dentistry Course, in relation to the other states.

Table 3 - Division of the Dental students by region of origin. Araruna, PB, Brazil. 2022.

Brazilian Region	n (%)
Northeast	173 (91.5)
Southeast	11 (5.8)
North	3 (1.6)
Central-West	2 (1.1)
South	0 (0)
TOTAL	189 (100.0)

*3 are not included. Source: The authors.

Of the nine Northeastern states, no students came from Alagoas (Table 4). The Northeastern cities where the students come from are shown in Table 5, with a predominance of students from the state of Paraíba (68.8%).

Table 4 - Northeastern (NE) states of origin of Dental students. Araruna, PB. Brazil, 2022.

STATE OF NORTHEAST	n	%
Paraíba (PB)	119	68.8
Pernambuco (PE)	16	9.3
Rio Grande do Norte (RN)	13	7.5
Ceará (CE)	8	4.6
Maranhão (MA)	6	3.5
Piauí (PI)	5	2.9
Bahia (BA)	4	2.3
Sergipe (SE)	2	1.1
Alagoas (AL)	0	0
Total	173	100.0

Source: The authors.

In relation to the other Brazilian regions, 11 students came from the Southeast region, being seven from the capitals Rio de Janeiro-RJ (n=5) and São Paulo-SP (n=2); three from the interior of Minas Gerais (MG) and one from Santo André (SP). Only three students came from the North region (all from the state of Pará, one from the capital, Belém) and two students came from the Midwest region (both from the capital of Goiás, Goiânia). Regarding capitals, the capital with the highest number of students coming from was João Pessoa-PB (n=11), followed by the other capitals: Rio de Janeiro-RJ (n=5), Natal-RN (n=3). There were two students from each capital: Recife (PE), Aracaju (SE), São Paulo (SP) and Goiânia (GO). From Fortaleza (CE), São Luís (MA) and Belém (PA), there was only one student from each capital (Tables 5 and 6).

Table 5 - Northeastern cities where Dental students come from. Araruna, PB. Brazil, 2022.

NORTHEASTERN STATE City/ <u>Capital</u>	Pre- Clinical Period P1-P4 n	Clinical Period P5-P10 n	Total n
PARAIBA	44	75	119
Campina Grande	11	16	27
<u>João Pessoa</u>	3	8	11
Bananeiras	3	5	8
Araruna	4	2	6
Guarabira	3	3	6
Cuité	3	3	6
Solânea	3	3	6
Arara	1	4	5
Cacimba de Dentro	0	3	3
Monteiro	1	2	3
Remígio	1	2	3
Queimadas	2	1	3
Souza	0	2	2
Ingá	0	2	2
Boqueirão	0	2	2
Nova Floresta	1	1	2

Others* (Acarau, Alagoa Grande, Alagoa Nova, Areia, Areial, Aroeiras, Belém, Boa Vista, Cabedelo, Cuitegi, Esperança, Itabaiana, Jacarau, Junco do Seridó, Lagoa Seca, Livramento, Prata, Santa Luzia, Sapé, Serra Branca, Serra Redonda, São João do Cariri, São José de Princesa, São Vicente do Seridó)	8	16	24
PERNAMBUCO	10	6	16
<u>Recife</u>	1	1	2
Santa Cruz do Capibaribe	1	1	2
Serra Talhada	2	0	2
Others* Aguas Belas, Araripina, Arco Verde, Bocaina, Casinhas, Floresta, Limoeiro, Salgueiro, Santa Cruz, Venturosa	6	4	10
RIO GRANDE DO NORTE	7	6	13
<u>Natal</u>	0	3	3
Passa e Fica	1	1	2
Mossoró	0	2	2
Others* Angicus, Assú, Caicó, Serro Cará, José da Penha, Parnamirim	6	0	6
CEARÁ	7	1	8
Iguatu	2	0	2
Others* Caririaçu, Jardim, <u>Fortaleza</u> , Limoeiro do Norte, Santana do Acaraú, Tabuleiro do Norte	5	1	6
MARANHÃO	5	1	6
Bacabal	2	0	2
Others* Açailândia, Balsas, <u>São Luis</u> , Bom Lugar	3	1	4
PIAUÍ	2	3	5
São Raimundo Nonato	1	1	2
Others* Fronteiras, Picos, Vieiras	1	2	3
BAHIA	2	2	4
Others* Itanhém, Juazeiro, Macaúbas, São Gabriel	2	2	4
SERGIPE	1	1	2
<u>Aracaju</u>	1	1	2
TOTAL	70	103	173

*One student each.

Table 6 - Origin of students from Other Brazilian regions. Araruna, PB. Brazil, 2022.

City (State)	n (%)
<u>Rio de Janeiro (RJ)*</u>	5 (26.3)
<u>São Paulo (SP)*</u>	2 (10.5)
<u>Goiânia (GO)*</u>	2 (10.5)
Borborema (MG)	1 (5.3)
Ipatinga (MG)	1 (5.3)

Serrania (MG)	1 (5.3)
Santo André (SP)	1 (5.3)
<u>Belém (PA)*</u>	1 (5.3)
Água Azul do Norte (PA)	1 (5.3)
Brasil Novo (PA)	1 (5.3)
Não Consta	3 (15.7)
TOTAL	19 (100.0)

* **capital**. Source: The authors.

DISCUSSION

The Dentistry Course at Campus VIII of UEPB, located in the city of Araruna, which is currently 13 years old, offers 40 places every semester, being a full-time course (PPC, 2023). In this work, female students with a good family income and white race predominated. The brown skin-‘mixed’ race (37.2%) was the second most declared by students. However, in 2019, 62.5% of the population in the Northeast Region declared themselves mixed race, according to the Continuous National Household Sample Survey (PNAD) carried out by the Brazilian Institute of Geography and Statistics (IBGE, 2019). This indicates that the minority Northeastern population had access to higher education, as verified in this study. For IBGE, courses most valued by the market in terms of remuneration, showed a greater predominance of white individuals, such as Medicine, with 61.0% (IBGE, 2022b), and this is also occurring with Dentistry, as observed in this work.

The majority (60.9%) of Dental students also had a family income above three minimum wages. Students with greater purchasing power are more likely to enter universities due to higher National High School Exam (ENEM) scores, probably due to studying in private high schools. Although family income was considered relatively high, in this study it was not verified whether the students were graduates in High School from public or private schools. Furthermore, a higher family income makes it easier to purchase dental materials and instruments during the course, which are very expensive.

Furthermore, in this work, there was a higher prevalence of women in the Dentistry Course, corroborating the Higher Education Census, carried out in 2020 (INEP, 2022), in which it was found that females were predominant when entering in Higher Education Institutions, both in-person and distance learning, characterizing a feminization of Higher Education for some time now. Even in 2000, 23 years ago, Guedes (2008) observed a proportion of 66.0% of women between 20 and 29 years old who graduated in Dentistry.

The mean number of students in the study was just 22 per period, a little more than half the number of places offered per semester ($n=40$). Furthermore, the majority (57.0%) of students were concentrated in the second half of the Course (Clinical periods). The COVID-19 pandemic, which began in March 2020 (PAHO; WHO, 2020) must be taken into account, which could have affected the entry and retention of students at the on-campus courses, such as Dentistry. According to the 2020 Higher Education Census, in Brazil there was a significant increase in the volume of student enrollment in distance learning courses and a drop in in-person courses. Furthermore, Bachelor's degree courses, such as Dentistry, continue to concentrate the majority (55.1%) of new entrants (freshmen). In Brazil, the high concentration of enrollments (77.5%) was found in the private universities, with 2.1 students enrolled in private university for every student in public universities. However, in the state of Paraíba, this proportion was approximately 1:1, with 61,888 admissions to the public university and 56,726 admissions to the private university in on-campus courses (INEP, 2021, 2022).

Concerning the origin of the students, the vast majority (68.8%) came from the state of Paraíba itself, mainly from the cities surrounding the small city of Araruna. It is interesting to note that, despite there being another Dentistry Course at the same University (UEPB) in the city of Campina Grande, it was found that it was the city in Paraíba with the highest origin (22.7%) of Dental students in this study. Furthermore, the state capital, João Pessoa, was the second city with the highest percentage (9.2%) of students enrolled in the Course. Only six (5.0%) students were from Araruna city, headquarters of Campus VIII, with most of them coming from neighboring cities, such as Bananeiras ($n=8$ students), also a small city, but more populous than Araruna (almost 6 thousand more inhabitants) and Guarabira, a larger city, with six students as well, but having three times more inhabitants than Araruna. This small number of students from Araruna could be explained by the wide competition for places throughout the country via the National Secondary Education Exam (ENEM) (PPC, 2023; UEPB, 2023), reducing the chances of competition for native students, since a large part (31.9%) of the students in this study came from the largest cities in Paraíba, Campina Grande and João Pessoa, as well as other capitals, both in the Northeast and in other Brazilian regions, which have more and better quality education options.

The city of Campina Grande is home to six Dentistry courses in Paraíba, the same number of courses as in Joao Pessoa, the state capital, which has a population of 833,932 inhabitants, almost double (1,98x greater) of the population of Campina Grande (IBGE,

2022a). These two cities concentrate 66.7% of the 18 Dentistry courses offered in the State of Paraíba (Brasil, MEC, 2023). As these cities have, respectively, 24 times (Campina Grande) and 48.5 times (João Pessoa) the Araruna population (IBGE, 2022a), their cost of living is much higher than that of a city with less than 20 thousand inhabitants, which would also justify the large contribution of students to the Course from these two Northeastern cities and even from other regions of the country. In Brazil, the vast majority (87.6%) of universities are private. Of the public ones, 42.4% are State-owned, such as UEPB, to which the Dentistry Course in this study belongs. Furthermore, 38.8% of Brazilian universities are federal and a small part (18.8%) are municipal (INEP, 2022). It can be considered a great privilege for the regional community of Paraíba to locate a State Public University in a small country town with few inhabitants, favoring Brazilian students of all incomes, especially those residing close to Campus VIII. However, there should be a form of expansion at this entrance for residents of the city itself.

Still in relation to the origin of the students, followed by Paraíba, it was highlighted that the Northeastern states that border it (PE, RN and CE), which were the ones that originated the most students (22.0%) enrolled in the Dentistry Course at Campus VIII, reiterating that the internalization of UEPB really guaranteed access for students from the surrounding region to the Campus. However, there was a tiny number of students from Araruna city, in relation to other surrounding municipalities, which indicates that the population of the municipality itself has not yet been effectively benefited by the University. It was also verified that, in the Northeast region, no Dentistry student came from the Alagoas state. As for the other Brazilian regions, 11 students came from the Southeast region, three from the North region (all from the state of Pará) and only two from the Central-West region (both from Goiânia, capital of the state of Goiás). No student came from the Southern region, the furthest from Paraíba.

CONCLUSION

The internalization of the UEPB was effective in the Dentistry Course at Campus VIII, so that many Northeastern students from the surrounding areas of Araruna city benefited from the location of that Campus, with the exception of the Araruna city itself, with only six students enrolled in the entire Course. The majority of Dental students were female, Caucasian and had a family income greater than three minimum wages. The vast majority of students came from the Northeast region, mainly from Paraíba and states that border it,

such as Pernambuco, Rio Grande do Norte and Ceara. The second Brazilian region with the highest number of students coming from was the Southeast, mainly from the state of Rio de Janeiro. Most of the Dental students came from the cities of Campina Grande and João Pessoa, the two largest and most populous cities in Paraíba, which are relatively close to Campus VIII and they also have many Dentistry Courses based there. What may have justified this demand for the Course in Araruna was the low cost of living in a small city, since many students also come from the capitals of Brazil and other larger cities and also the better purchasing power of them, since Dentistry is a course in which high-cost materials must be purchased during the course.

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