



# Characterization of nursing undergraduate students during the COVID-19: analysis of ethnic-racial and socioeconomic dimensions

*Caracterização dos estudantes de graduação em enfermagem durante a COVID-19: análise das dimensões étnico-raciais e socioeconômicas*

*Caracterización de los estudiantes de pregrado en enfermería durante la COVID-19: análisis de las dimensiones étnico-raciales y socioeconómicas*

Diego Lima de Oliveira<sup>1</sup>

Tiago Oliveira de Souza<sup>2</sup>

Thamires Monteiro de Medeiros<sup>3</sup>

1. Escola de Governo Fiocruz Brasília. Brasília, DF, Brasil.

2. Universidade Federal do Rio de Janeiro, Centro Multidisciplinar, Instituto de Enfermagem. Macaé, RJ, Brasil.

3. Faculdade de Ciências Médicas da Santa Casa de São Paulo. São Paulo, SP, Brasil.

## ABSTRACT

**Objective:** to characterize nursing undergraduate students during the COVID-19 pandemic based on intersectionality. **Method:** this is a cross-sectional study with a descriptive approach that characterized the population during the pandemic, covering the years 2020 and 2021. A questionnaire was developed with questions on socioeconomic, labor, cultural, and health aspects. **Results:** the analysis of the implementation of a nursing bachelor's program at the *Universidade Federal do Rio de Janeiro - Macaé* Institute of Nursing reveals a student profile that is predominantly young, female, Black, working class, and cisgender, reflecting a specific social reality of northern Rio de Janeiro. The expansion of the *Universidade Federal do Rio de Janeiro* and the implementation of affirmative actions, such as reserving spots for black students, have promoted greater diversity in nursing education. However, structural and institutional racism still persists, reflected in inequalities between white and black professionals in the field. **Conclusion and implications for practice:** promoting equity and developing intersectoral actions for the maintenance and expansion of educational and social policies is fundamental to correcting social asymmetries in academic training.

**Keywords:** COVID-19; Universities; Students; Nursing; Teaching; Intersectional Framework.

## RESUMO

**Objetivo:** caracterizar os estudantes de enfermagem no período da pandemia de COVID-19 com base na interseccionalidade. **Método:** estudo transversal, com abordagem descritiva, que caracterizou a população durante a pandemia, compreendendo os anos de 2020 e 2021. Foi elaborado um questionário com questões socioeconômicas, laborais, culturais e de saúde. **Resultados:** a análise da implementação do curso de bacharelado em enfermagem do Instituto de Enfermagem da Universidade Federal do Rio de Janeiro - Macaé revela um perfil discente que é predominantemente jovem, feminino, negro, trabalhador e cisgênero, refletindo uma realidade social específica da região do Norte Fluminense. A expansão da universidade na região e a implementação de ações afirmativas, como a reserva de vagas para estudantes negros, têm promovido uma maior diversidade na formação em enfermagem. No entanto, o racismo estrutural e institucional ainda persiste, refletido nas desigualdades entre brancos e negros na profissão. **Conclusão e implicações para a prática:** a promoção da equidade e o desenvolvimento de ações intersectoriais para a manutenção e ampliação das políticas educacionais e sociais são fundamentais para corrigir assimetrias sociais na formação acadêmica.

**Palavras-chave:** COVID-19; Ensino Superior; Estudantes de Enfermagem; Formação Acadêmica; Interseccionalidade.

## RESUMEN

**Objetivo:** caracterizar a los estudiantes de enfermería durante la pandemia de COVID-19 basándose en la interseccionalidad. **Método:** se trata de un estudio transversal, con un enfoque descriptivo, que caracterizó a la población durante la pandemia, abarcando los años 2020 y 2021. Se elaboró un cuestionario con preguntas socioeconómicas, laborales, culturales y de salud. **Resultados:** el análisis de la implementación del curso de bachillerato en enfermería del Instituto de Enfermería de la *Universidade Federal do Rio de Janeiro - Macaé* revela un perfil estudiantil predominantemente joven, femenino, negro, trabajador y cisgénero, reflejando una realidad social específica de la región del norte de Rio de Janeiro. La expansión de la *Universidade Federal do Rio de Janeiro* y la implementación de acciones afirmativas, como la reserva de plazas para estudiantes negros, han promovido una mayor diversidad en la formación en enfermería. Sin embargo, el racismo estructural e institucional persiste, reflejado en las desigualdades entre blancos y negros en la profesión. **Conclusión y implicaciones para la práctica:** la promoción de la equidad y el desarrollo de acciones intersectoriales para la conservación y ampliación de las políticas educativas y sociales son fundamentales para corregir las asimetrías sociales en la formación académica.

**Palabras-clave:** COVID-19; Educación Superior; Estudiantes de Enfermería; Enseñanza; Interseccionalidad.

### Corresponding author:

Diego Lima de Oliveira.

E-mail: dloliveira@aluno.fiocruz.br

Submitted on 04/02/2024.

Accepted on 09/19/2024.

DOI: <https://doi.org/10.1590/2177-9465-EAN-2024-0029en>

## INTRODUCTION

The *Universidade Federal do Rio de Janeiro* (UFRJ) celebrated its 104<sup>th</sup> anniversary in 2024, and since 2007 it has undergone structural changes, with assessments and guidelines for implementing the Educational Development Plan (In Portuguese, *Plano de Desenvolvimento Educacional* (PDE)), established by Presidential Decree 6,096 of April 24, 2007, during the presidency of Luiz Inácio Lula da Silva with Fernando Haddad's management at the Ministry of Education. The Support Program for Restructuring and Expansion Plans of Federal Universities (In Portuguese, *Programa de Apoio a Planos de Reestruturação e Expansão das Universidades Federais* (REUNI)) presents as one of its guidelines "the provision of higher education for at least 30% of young people in the age group (from 18 to 24 years old) by the end of the decade".<sup>1,2</sup>

In view of this, the interiorization campus was inaugurated through the creation of the UFRJ Restructuring and Expansion Program (In Portuguese, *Programa de Reestruturação e Expansão* (PRE)) in 2008, when the *Escola de Enfermagem Anna Nery* (EEAN), the *Instituto de Nutrição Josué de Castro*, the School of Medicine, the School of Pharmacy, the Institute of Chemistry and the Polytechnic of Engineering were motivated to create undergraduate courses in Macaé, through the consolidation of a new UFRJ hub, the *Instituto Macaé de Ciência e Tecnologia* (IMCT), located in northern Rio de Janeiro, approximately 180 km from the UFRJ headquarters, which caused important socioeconomic and cultural impacts for Macaé in the short, medium and long term.<sup>3</sup>

In 2021, the UFRJ-Macaé Aloísio Teixeira campus was transformed into the UFRJ-Macaé Multidisciplinary Center (In Portuguese, *Centro Multidisciplinar UFRJ-Macaé* (CM UFRJ-Macaé)), composed of six institutes, namely: (1) Institute of Nursing (IEnf); (2) Polytechnic Institute; (3) Institute of Pharmaceutical Sciences; (4) Institute of Medical Sciences; (5) Institute of Food and Nutrition; and (6) Multidisciplinary Institute of Chemistry.<sup>3</sup>

Even before the UFRJ expansion process, the importance of the Center for Research in Ecology and Socio-Environmental Development (In Portuguese, *Núcleo de Pesquisas em Ecologia e Desenvolvimento Sócio-Ambiental* (NUPEM)) in terms of the city's economy was already evident. With recent transformations, this has become even more evident. For instance, in 2018, the transformation of NUPEM into the Institute of Biodiversity and Sustainability was approved.

Regarding the bachelor's degree in nursing, 80 places are made available annually, and since 2014, 227 nurses have graduated, qualified to work throughout the country. During 2020, with the COVID-19 pandemic, UFRJ suspended its in-person activities in March, resuming its non-in-person activities in July, through the Exceptional School Period Plan (In Portuguese, *Plano do Período Letivo Excepcional* (PLE)).<sup>3</sup>

The COVID-19 pandemic has brought significant challenges to the education system, including the nursing program in Macaé. The interruption of in-person activities and the transition to remote learning have affected academic dynamics and required

rapid adaptation by students and faculty. This period of change has also served as a turning point for a deeper analysis of the conditions and realities faced by students, especially regarding race, gender, and class.

Knowing this information is relevant, due to the history of inequalities in the scope of academic training in health sciences, which reflects the patterns of Brazilian social conformation, revealed with difficulties for groups subalternized in the process of coloniality, such as black and indigenous people, women, the poor and LGBTQIAPN+ people (lesbians, gays, bisexuals, transvestites, transsexuals, transgenders, queers, intersex, asexuals, pansexuals, non-binary and more).<sup>4,5</sup>

The complexity in characterizing how these inequalities are perpetuated in the academic environment highlights the need for theoretical tools that enable a sophisticated reading of this reality. Thus, in developing this study, an approach was made with the concept of intersectionality. This concept is pointed out by author Carla Akotirene as an ancestral tool, as it reaches black women in contemporary times, having been developed throughout history by black feminist intellectuals and activists, guiding the understanding of how different structural oppressions affect people not in isolation, but in an intersecting manner, producing social plots that require complex responses from public policies.<sup>6</sup>

In Brazil, for instance, black thinkers such as Luiza Bairros, Beatriz Nascimento, Lélia Gonzalez, Sueli Carneiro and Jurema Werneck, without necessarily naming the concept, were and are, in their works and analyses, fundamental to the constitution and expansion of articulated discussion between race, gender and class within social movements.<sup>7</sup>

Intersectionality is necessary due to the limitations of gender discussions that did not consider the racial issue, as in liberal white feminism, and the obstacles in the fight for human rights to end racism, which did not consider the debate on gender inequalities and that these inequalities do not affect distinct groups, but rather overlap.<sup>8,9</sup>

It is worth noting that using the intersectionality tool does not mean producing an analysis that reflects a sum of oppressions, but deals with the possibility of "making visible" articulations and interactions among multiple axes of power and inequality, as Carla Akotirene explains: "frequently and mistakenly, we think that intersectionality is only about multiple identities; however, intersectionality is, above all, an analytical lens, on structural interaction in its political and legal effects".<sup>6,63</sup>

These interactions are dynamic, contextual and historically situated, and therefore intersectionality requires geopolitical orientation and prevents reductionisms in identity politics. It elucidates the articulations of colonial structures that make identity vulnerable, investigating conjunctures of collisions and flows among structure, frequency and type of discrimination.<sup>6</sup>

This geopolitical orientation and its inequalities determine opportunities and working conditions; in other words, they structure the capitalist division of labor.<sup>10,11</sup> Therefore, it is important to understand the development of educational practices and policies that favor the reduction of these social gaps.

Although this text does not commit to the application of the concept of intersectionality, it recognizes the urgent need to formulate and implement institutional policies that promote effective inclusion and equity. UFRJ already has structures dedicated to these issues, such as the General Superintendence of Affirmative Actions, Diversity and Accessibility (In Portuguese, *Superintendência Geral de Ações Afirmativas, Diversidade e Acessibilidade* (SGAADA)) and the Center for Afro-Brazilian and Indigenous Studies (In Portuguese, *Núcleo de Estudos Afro-Brasileiros e Indígenas* (NEABI)), in addition to the affirmative action policy, which has been in effect since 2012. These initiatives are important steps in building a more equitable academic environment, but there is still a long way to go to ensure that historical and structural inequalities are properly addressed and mitigated.

Therefore, this article aims to characterize nursing undergraduate students during the COVID-19 pandemic based on intersectionality.

## METHOD

This is a cross-sectional study with a descriptive approach that characterized the population of students in the bachelor's degree in nursing at IEnf/CM UFRJ-Macaé during the COVID-19 pandemic, covering the years 2020 and 2021. The sample inclusion criteria were students regularly enrolled between the 1<sup>st</sup> and 10<sup>th</sup> academic semesters, with those who were actively enrolled during the pandemic being eligible for the study. The exclusion criterion was irregularity in active enrollment during the data collection period, which corresponds to the quarantine period and online and remote activities.

IEnf had approximately 280 students actively enrolled between 2020 and 2021, which is the study population. The data that comprised the analysis were extracted from 108 questionnaires, answered and collected with the course coordination in force at the time.

Sampling design was composed of all students with active enrollment during the study/collection period. For sampling unit analysis, the number of students who answered 100% of the questionnaire was considered.

Data collection took place via email registered in the Integrated Academic Management System (In Portuguese, *Sistema Integrado de Gestão Acadêmica* (SIGA UFRJ)) and via WhatsApp® groups, a communication application, among students, through a self-administered electronic questionnaire, which was also sent by the course coordinator to all students with active enrollment. To obtain information, a specific semi-structured questionnaire on socioeconomic and demographic aspects was prepared, with 28 questions, and completed by the students themselves.

The absolute (number) and relative (proportion) frequencies of variables that composed the categories were analyzed, namely: gender; age/age group; affective-sexual orientation; place of birth; ethnic-racial self-declaration; religion; year of admission to UFRJ; whether affirmative action was used upon admission; income; family income; marital status; type of high school; family education; impacts of the pandemic; and whether a student has

a health plan. After the database construction, the data were tabulated, and tables and graphs were created using Microsoft Excel® to illustrate the study findings.

This study was approved by the UFRJ-Macaé Campus Research Ethics Committee (Certificate of Presentation for Ethical Consideration (In Portuguese, *Certificado de Apresentação para Apreciação Ética* (CAAE) 31760020.5.0000.5699). Data collection was only performed after research participants, in this case, students, fully understood the study procedures and objectives, together with obtaining authorization through the Informed Consent Form (ICF).

## RESULTS

Based on the data collected, it was observed that approximately 55% of nursing undergraduate students declared themselves black, with 19.4% (n=21) being black and 35.2% (n=38) being brown. White students represented 43.5% (n=47) of the sample, whereas only 0.9% (n=1) identified themselves as indigenous or preferred not to reveal their ethnicity.

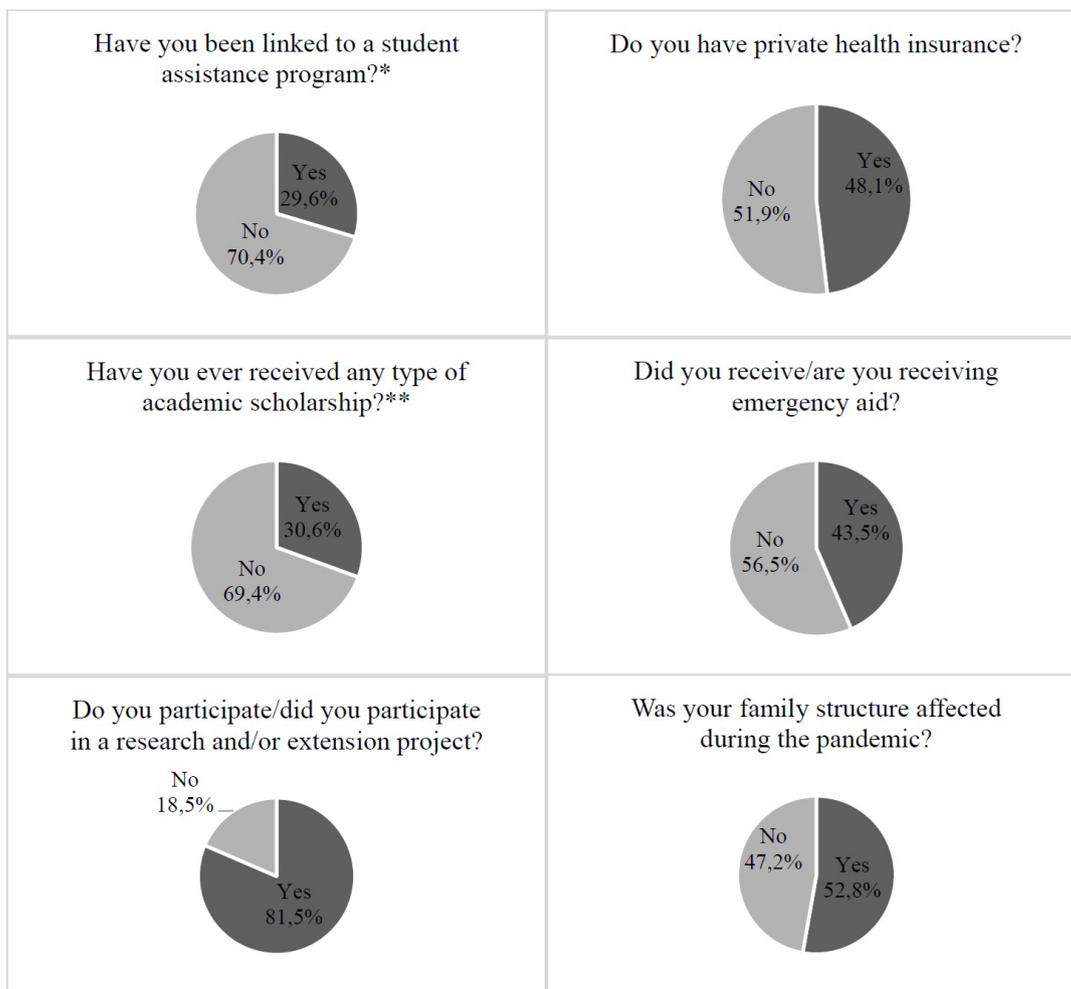
The religion with the highest concentration of students was Protestants and Catholics, with 45.4% combined. They presented a majority profile of students who declared exercising their faith during the pandemic. The majority identified as cisgender women (n=92), representing 85.2%, whereas 13% were cisgender men.

When questioning this affective-sexual orientation of the students of the studied course, it is possible to observe that 73.1% (n=79) consider themselves heterosexual and 24.1% are from the LGBTQIAPN+ community, with the largest concentration of bisexuals, with 18.5% (n=20). This is also a population of single people in the youth phase of 20 to 24 years old (68.5%) (Table 1).

Figure 1 shows that most undergraduate students (70.4%) did not benefit from student assistance programs during the research period. When asked about having received some type of academic scholarship, only 30.5% had received this benefit. On the other hand, more than 80% of students took part in research and/or extension projects, even as volunteers.

When asked if they were members of the faculty who received a scholarship to encourage scientific knowledge production, 69% responded that they did not receive one, whereas 31% of students received a R\$400.00 scholarship through scientific initiation, extension, and monitoring projects, and the Education through Work for Health Program (In Portuguese, *Programa de Educação pelo Trabalho para Saúde* (PET-Saúde)). When asked about their involvement in student assistance policies of the Office of the Vice-Rector for Student Policies (In Portuguese, *Pró-Reitoria de Políticas Estudantis* (PR7)), 70% did not receive any type of student assistance, whereas 30% of students were beneficiaries.

Of the 108 interviewees, 51.9% did not have health insurance. When asked about the impacts of the pandemic, 52.8% claimed that their family structure was affected by the direct and indirect consequences of COVID-19. Of the total number of students, 43.5% received emergency aid from the federal government (Figure 1).



**Figure 1.** Student assistance programs and impacts of the pandemic on undergraduate nursing undergraduate students (n=108). Macaé, RJ, Brazil, 2022

Source: research data. Own elaboration.

Note: \*Includes pedagogical support, food assistance, transportation assistance, housing assistance, etc.; \*\*Includes extension grant, monitoring grant, Education Through Work for Health Program (In Portuguese, *Programa de Educação pelo Trabalho para Saúde (PET-Saúde)*), scientific initiation grant, etc.

Those entering the course accounted for 18.5% of the sample in 2017 (n=20), whereas 25% reported having entered during the COVID-19 pandemic in 2020 and 2021. The survey included students from the ten periods that make up the undergraduate course.

Access to university is a counterpoint when we think about university permanence. According to data issued by the Pedagogical Division of PR7 and collected by the PR7 center in Macaé, during the pandemic, between 2020 and 2021, CM UFRJ Macaé had a total of 523 students assisted with PR7 scholarships. Of these total scholarship students, 96 were in the nursing course. Therefore, IEnf held approximately 18.35% of the total scholarships of PR7-Macaé.

It is important to note that PR7 is the Office of the Vice-Rector for Student Policies at UFRJ, dedicated to caring for and supporting university students. It works to ensure that all students have access to essential resources, such as financial aid, housing, food, and

healthcare, in addition to offering psychological support. Moreover, its goal is to help students overcome challenges and focus on their studies, providing a more inclusive and welcoming university environment. In this way, its main contribution is to ensure that everyone can make the most of their academic experience and achieve success in their journeys.

More than half of students (53.7%) did not enter higher education through affirmative action policies. Regarding the type of secondary education, almost 77% came from regular secondary education, with around 52% from public schools (Table 2).

The entry profile of nursing undergraduate students at CM UFRJ-Macaé is predominantly broad competition (53.7%), whereas the second entry profile is through the modality of self-declared black, brown or indigenous people, with a gross family income per capita equal to or less than 1.5 minimum wages and who (or) have completed high school in public schools (46.4%).

**Table 1.** Characterization of the profile of undergraduate nursing undergraduate students (n=108). Macaé, RJ, Brazil, 2022

Variables/characteristics					
Gender	N	%	Marital status	N	%
Cis man	14	13.0	Married	8	7.4
Trans man	0	-	Other	4	3.7
Cis woman	92	85.2	Separated*	2	1.9
Trans woman	0	-	Single	94	87.0
Non-binary	0	-			
Prefer not to declare	2	1.9			
Affective-sexual orientation	N	%	Age group	N	%
Asexual	1	0.9	15 to 19 years	10	9.3
Bisexual	20	18.5	20 to 24 years	74	68.5
Demisexual	1	0.9	25 to 29 years	18	16.7
Heterosexual	79	73.1	30 to 34 years	2	1.9
Homosexual	6	5.6	35 to 39 years	4	3.7
Prefer not to declare	1	0.9			
Race/color	N	%	Religion	N	%
White	47	43.5	I believe in God, but I do not follow any religion	28	25.9
Indigenous	1	0.9	Agnostic	1	0.9
Brown	38	35.2	Atheist	1	0.9
Black	21	19.4	Candomblecist	20	18.5
Prefer not to declare	1	0.9	Catholic	5	4.6
			Other	10	9.3
			Protestant	29	26.9
			Umbanda	3	2.8
			Prefer not to declare	6	5.6

Source: research data. Own elaboration.

Note: \*Includes legally separated and/or divorced.

Concerning the income and economic situation of students and parents, the results indicate that most of them (46.3%) had no income and their expenses were covered by family members. In addition to this, they reported not working (68.5%), although 18.5% had occasional jobs. Total family income was between 1 and 4.5 minimum wages for 65.7% of interviewees. Maternal education indicated that 37% of mothers had completed high school (n=40), whereas the number of students whose mother had graduated was 23.1% (n=25). In comparison, paternal education was 35.2% for high school, and 25.9% had a father with a undergraduate degree (Table 3).

When asked about their place of residence, 68 (63%) responded that they currently lived in a house or apartment with their family, and 32 (29.6%) lived with up to three family members during their undergraduate studies. As for the birthplace of interviewees, the largest concentration was of students from

the southeast (93.5%; n=101), with 95 students from the state of Rio de Janeiro and predominantly from northern Rio de Janeiro, where the institution studied is located (Table 4).

## DISCUSSION

The nursing program at UFRJ-Macaé, as part of an institution that seeks to promote diversity, faces challenges and opportunities regarding the racial composition of its students. The data highlight the importance of analyzing how inclusion policies and quotas have influenced the program's ethno-racial diversity. The integration of categories "black" and "brown" in the Brazilian context reflects the complexity and diversity of black people's identity. Historically, these categories have been used to describe different nuances of color and ethnic origin within the black population, shaping how black people are perceived

**Table 2.** Situation and information about university admission by undergraduate nursing undergraduate students (n=108). Macaé, RJ, Brazil, 2022

Variables/questions					
High school education modality	N	%	Year	N	%
Youth and Adult Education (In Portuguese, <i>Educação de Jovens e Adultos (EJA)</i> ) and/or supplementary education	2	1.9	2014	5	4.6
Traditional high school	83	76.9	2015	6	5.6
Other modality	3	2.8	2016	13	12.0
Teaching vocational training	3	2.8	2017	20	18.5
Technical vocational training	17	15.7	2018	15	13.9
			2019	17	15.7
			2020	18	16.7
			2021	9	8.3
			2022	5	4.6
Type of school (high school)	N	%	Period	N	%
Mostly in private school	1	0.9	Tenth	4	28.6
Mostly in public school	5	4.6	Ninth	8	57.1
Some in Brazil and some abroad	2	1.9	Eighth	17	121.4
All in private school	44	40.7	Seventh	17	121.4
All in public school	56	51.9	Sixth	10	71.4
			Fifth	12	85.7
			Quart	13	92.9
			Third	6	42.9
			Second	7	50.0
			First	14	100.0
Was admission to the course through affirmative action policies?	N	%			
No	58	53.7			
Yes, by income criterion	3	2.8			
Yes, by ethnic-racial criterion	2	1.9			
Yes, by system that combines two or more previous criteria	29	26.9			
Yes, by having studied in a public school	16	14.8			

Source: research data. Own elaboration.

and how they see themselves. Understanding the interactions between these categories can offer valuable insights into how black identity is formed and experienced in Brazil.

Despite the inclusion of quotas for black and brown students, the representation of indigenous students in the program is extremely low. This low representation may reflect specific barriers faced by this group, such as the need to remain in their village communities. It is crucial to consider whether current legislation on quotas adequately meets indigenous students' needs and discuss possible adjustments to improve the inclusion of this group. Reviewing and adapting quota policies to ensure more equitable and effective representation for indigenous students

can help address existing inequalities and promote fuller diversity in academic environments.

The data obtained provide a comprehensive overview of the ethnic-racial composition of nursing undergraduate students, revealing both successes and areas that still require attention. The analysis shows the importance of a more detailed approach to the integration of racial categories and the impact of quota policies.

However, it is essential to review current legislation to ensure that all groups, including indigenous groups, are adequately represented and supported. Continuing to formulate and implement inclusive and adaptive policies will be crucial to achieving greater

**Table 3.** Characteristics indicating family education, financial situation, total family income and work/employment status of undergraduate nursing undergraduate students (n=108). Macaé, RJ, Brazil, 2022

Variables				
Education	Maternal		Paternal	
	N	%	N	%
Elementary school*	18	16.7	32	29.6
Secondary school	40	37.0	38	35.2
Higher education – undergraduate degree	25	23.1	28	25.9
Graduate degree	22	20.4	5	4.6
None	3	2.8	5	4.6
Financial situation			N	%
I have no income and my expenses are financed by my family or other people			50	46.3
I have no income and my expenses are financed by government programs			22	20.4
I am the main breadwinner for the family			3	2.8
I have an income and contribute to the family's support			7	6.5
I have an income and I do not need help to finance my expenses			4	3.7
I have an income, but I receive help from family or other people to finance my expenses			22	20.4
Total family income			N	%
Up to 1.5 minimum wages			27	25.0
From 1.5 to 3 minimum wages			29	26.9
From 3 to 4.5 minimum wages			15	13.9
From 4.5 to 6 minimum wages			17	15.7
From 6 to 10 minimum wages			16	14.8
From 10 to 30 minimum wages			4	3.7
Work/employment status			N	%
I am not working			74	68.5
I work 40 hours a week or more			4	3.7
I work up to 20 hours a week			8	7.4
I work 21 to 39 hours a week			2	1.9
I work occasionally			20	18.5

**Source:** research data. Own elaboration.

**Note:** \*The stages of elementary education in Brazil are separated into: initial years (Elementary Education I), which include classes from 1<sup>st</sup> to 5<sup>th</sup> grade; and final years (Elementary Education II), which include students from 6<sup>th</sup> to 9<sup>th</sup> grade.

equity and diversity in the course and, by extension, in the university as a whole.

In 1937, EEAN was incorporated into the *Universidade do Brasil*, now UFRJ, and since the 1920s, it has been responsible for the standard university academic training of nurses, and was associated with the process of whitening professionalization and formalizing a racial and social distancing of poor, black and indigenous populations, considered, by the prevailing racist discourse, “inferior” to the nursing leadership in the First Republic.<sup>10</sup>

The Annual Report of the Nursing Service, in 1926, made the issue of racial discrimination in the selection of EEAN candidates

clear, and only in the 1930s did the State promote an opening for the professionalization of black people for the country's economic development.<sup>10</sup> However, it was only in the 2000s that universities adopted affirmative action for admission to undergraduate courses. Finally, in 2011, belatedly, UFRJ incorporated affirmative action by reserving places for students from public schools, and in 2012, through the Quota Law, places were reserved for black, brown and indigenous people. Places are reserved through the Unified Selection System (In Portuguese, *Sistema Integrado de Seleção Unificada* (SISU)), based on the results obtained in the Brazilian National High School Exam (In Portuguese, *Exame Nacional de Ensino Médio* (ENEM)).<sup>3</sup>

**Table 4.** Housing/residence characteristics, geographic origin (place of birth) of undergraduate nursing undergraduate students (n=108). Macaé, RJ, Brazil, 2022

Variables					
Current housing situation	N	%	Regions of the state of Rio de Janeiro	N	%
University accommodation at the institution itself	3	2.8	Northwest Rio de Janeiro	3	2.8
House or apartment, with spouse and/or children	14	13.0	Northern Rio de Janeiro	51	47.2
House or apartment, with other people	13	12.0	Coastal Lowlands	28	25.9
House or apartment, with parents and/or relatives	68	63.0	Mountainous	0	0.0
House or apartment, alone	10	9.3	Central-South	0	0.0
			Metropolitan I	12	11.1
			Metropolitan II	1	0.9
			Middle Paraíba	0	0.0
			Ilha Grande Bay	0	0.0
Number of family members currently living with the student	N	%	Country region	N	%
One	16	14.8	South	0	0.0
Two	26	24.1	Southeast	101	93.5
Three	32	29.6	* Espírito Santo	1	-
Four	9	8.3	* Minas Gerais	4	-
Five	3	2.8	* Rio de Janeiro	95	-
None	22	20.4	* São Paulo	1	-
			Midwest	1	0.9
			North	0	0.0
			Northeast	5	4.6
			Not reported	1	0.9

Source: research data. Own elaboration.

It is clear that IEnf/CM UFRJ-Macaé, financed by REUNI, is able to promote a regional reconfiguration in northern Rio de Janeiro, considering that such a policy of expanding the public university involves the dimension of strengthening regional development.<sup>11</sup> Thus, it is possible to observe that the majority of the student body studied is from southeastern Brazil, and when looking at the state of Rio de Janeiro, the number of students from the cities of northern Rio de Janeiro and Coastal Lowlands is significant. However, the undergraduate course in nursing also attracts students from northeastern Brazil.

The enrollment trend, justified by the 2019 Brazilian National Student Performance Exam (In Portuguese, *Exame Nacional de Desempenho dos Estudantes* (ENADE)) Area Report, which already presents evidence regarding the course entry method (41.2%),

did not enter through affirmative action policies. Meanwhile, 29.4% entered because they studied in a public or private school with a scholarship; 17.6% entered through a system that combines two or more previous criteria; 5.9% entered based on ethnic-racial criteria; and 5.9% entered based on income criteria.<sup>12</sup>

This enrollment trend points to successes and challenges in the implementation of affirmative action policies. With an increase in the number of black students and an almost non-existent number of Asian and indigenous students, there is a need to consider new legislation for affirmative action and go beyond access to university, but also to ensure permanence, creating the necessary conditions through their particularities.<sup>13,14</sup>

As an example, this black profile corroborates national data showing that the percentage of black students in Federal Higher

Education Institutions (FHEIs) rose from 34.2% in 2003 to 51.2% in 2018.<sup>15</sup>

Nursing in Brazil is deeply marked by structural racism, which manifests itself in systematic and persistent inequalities between different racial groups within the profession. This unequal structure is evidenced by the fact that 57.9% of nurses in the country identify as white, which highlights the racial disparity and its socioeconomic implications. Additionally, Brazilian nursing is also influenced by institutionalized racism in the United States, whose historical practices and norms have contributed to shaping the conditions of the profession globally. This structural and institutionalized racism together perpetuates inequalities, creating significant barriers for black and indigenous nurses, who face greater challenges in accessing opportunities for training and professional advancement, reinforcing an unequal and exclusionary division within the profession.<sup>16-18</sup>

Through the historical division of nursing labor, it reproduces new hierarchies of authority, prestige and remuneration, as white nurses – the largest number in the category – are allocated in the majority at higher education level, whereas the majority of nursing technicians are black (57.4%, in the sum of black and brown people. Data from COFEN/FIOCRUZ).<sup>18,19</sup> These data support the reading of the intersection of gender, race and class subordination, due to the historical devaluation of technical level training and knowledge in Brazil.

The low appreciation of the profession is expressed as a re-actualization of sexism, which dictates care work devaluation, which is historically feminized, and in the case of the technical level, feminized and black, and still supposedly subordinated to male and medical representation.

In relation to marital status, there was a predominance of entrants who declared themselves to be single. This fact reinforces that, when considering the in-person and full-time course modality, the admission of single and young students determines their dedication to the excessive course workload.<sup>20</sup> The undergraduate course studied is the second longest in the state of RJ, with a total of 5,475 hours, with the nursing course at the *Universidade Estadual do Rio de Janeiro* (UERJ) in first place, with 5,850 hours, and the nursing course at the *Universidade Federal Fluminense* (UFF) in third place, with 5,440 hours.

About the conflicting contexts that LGBTQIAPN+ identities are exposed to on a daily basis, the literature<sup>21-24</sup> identifies that this population presented worrying levels of mental health during the COVID-19 pandemic. In addition, they had a higher risk of suffering violence, losing income, reducing their connection with the community, losing hope for the future, developing depression and even committing suicide, feelings common among the population, from the moment they shared with each other insecurities related to changes in routine, physical and social distancing, virus prevention, loss of income, business closures, and fear of death.

The suffering to which the LGBTQIAPN+ community has been subjected during the pandemic is a result of the marginalization

processes that preceded this historical moment, placing them in a web of vulnerability that, combined with the multiple intersections of identity, such as race, class and gender, configures this disadvantage in facing a global health and economic crisis. Therefore, characterizing the student profile and identifying their ethnic-racial and sociodemographic characteristics, and how they articulate with the characteristics of affective-sexual orientation and gender identity, which allocates them in webs of greater or lesser vulnerability, is one of the challenges posed to the academic community.

Spirituality and religiosity can play a welcoming and humanizing role in situations of fear and death, with faith being necessary to guide values of hope.<sup>25</sup>

Studies available in the literature<sup>16-18,20</sup> on the student profile and national profile of nurses do not address issues regarding their affective-sexual orientation and religion, which highlights the need for more incentives for research to seek to identify these profiles and the plots involved in the process of vulnerability in the university and in the profession. They are also not mentioned in relation to the models of healthcare services accessed by this profile, and there is little discussion about the trends in the use of health insurance instead of assistance services provided by the Brazilian Health System (In Portuguese, *Sistema Único de Saúde* (SUS)).

The student profile studied presents a relationship with the SUS, which is in line with the data from Macaé. The oil crisis faced in the last decade resulted in more than half of the population depending on the public network, either due to the demand and supply of primary care services or even the regulation and inspection of consumer goods or indirect healthcare services.<sup>26</sup>

In this research, and according to available studies,<sup>16,20,26</sup> it is possible to identify a young and economically active profile (workers or from families of workers, supported by family income). However, it is worth noting that the conditions of material and symbolic disadvantage imposed on black students have the potential to interfere with their academic and professional trajectory in the future. When analyzing the literature,<sup>16-18</sup> it is noted that white nurses have a better income, whereas these same self-declared black professionals need to work more and with lower salaries, when observing healthcare services in private institutions.

This fact presents complexities in the face of the professional academic training of this student profile, indicating that these university youth face several challenges when they arrive at the FHEI, since, when it was created, it was not designed for them, and this currently reflects in uncertainties not only regarding access, but also regarding permanence, given a series of needs, especially related to economic capital, in addition to affiliation to research, teaching and extension groups.<sup>27</sup>

Access democratization did not necessarily enable knowledge democratization, understanding that the selection criteria in these groups are rigorous, making it necessary to promote new possibilities for developing scientific knowledge for working and university youth.<sup>28</sup>

In view of this, access democratization in Macaé occurs through the expansion of the university, which has four UFRJ health institutes, but which do not have an outpatient care service in their facilities for society and academic staff. They also do not have a federal hospital for developing quality in academic and professional training, with the bachelor's degree course in nursing being dependent on the public and private healthcare network in Macaé and its health region to train new nurses.

Considering the limitations observed in university expansion in Macaé and the need to expand opportunities for academic and professional training of students, the UFRJ Institutional Program of Scientific Initiation Scholarships for Undergraduate Students - Affirmative Actions (In Portuguese, *Programa Institucional de Bolsas de Iniciação Científica para Estudantes de Graduação - Ações Afirmativas* (PIBIC-AF)) emerges as a crucial tool to face these challenges. PIBIC-AF represents a significant attempt to democratize access to scientific research, particularly for those who entered the university through affirmative action policies.

In the context of Macaé, where the infrastructure is not yet fully adequate to meet all students' academic and practical needs, PIBIC-AF provides a valuable opportunity for these students to engage in research projects, even in an environment with structural limitations. By offering financial and academic support for scientific initiation, PIBIC-AF not only expands access to knowledge production, but also contributes to creating a more robust professional profile, prepared to face job market demands and health field specificities.

Thus, PIBIC-AF represents an important step forward in ensuring that access democratization to university translates into effective opportunities for academic and scientific development, mitigating inequalities and promoting the inclusion of all segments of the academic community.

Finally, it is important to think about public policies for access, permanence and selection in projects and their affirmative actions in FHEIs, composing intersectionality for social understanding based on the multiple oppressions that permeate the singular and collective existence of each student, in all contexts, since poor-working class-young-black-lesbian-women or poor-working class-young-black-gay-men seek access to quality public services, without privileges of class, education, race/ethnicity, affective-sexual orientation, nationality and religious affiliation, overcoming racist logic in academic training and in work relations within and outside the nursing team.<sup>10,29</sup>

## **CONCLUSION AND IMPLICATIONS FOR PRACTICE**

The analysis of the implementation of the bachelor's degree in nursing at IEnf/CM UFRJ-Macaé reveals a student profile that is predominantly young, female, black, working class and cisgender, reflecting a specific social reality of northern Rio de Janeiro. This profile highlights the urgent need for an intersectional approach in nursing education, which is still little explored in the current context. The lack of adequate intersectional strategies for student

retention and academic development indicates a significant gap in the understanding of the multiple forms of oppression that affect the student body.

The precariousness of public education in the countryside and the impact of the pandemic have accentuated structural inequalities, especially in areas such as mental health, which can perpetuate historical and social privileges. The need for a more robust intersectional approach becomes evident, not only to ensure student retention and success, but also to foster a more equitable and inclusive academic environment.

However, there is a lack of studies and concrete actions by the institutions involved. The Brazilian Nursing Association (In Portuguese, *Associação Brasileira de Enfermagem* (ABEn)), for instance, still does not have research focused on intersectionality within nursing and its relationship with nursing training. The Brazilian National Articulation of Black Nursing (In Portuguese, *Articulação Nacional da Enfermagem Negra* (ANEn)), although still in the process of organization, can signal potential horizons for analysis and action. . This underscores the need for greater visibility and recognition of networks and movements that the black population is forming to promote more equitable policies. Similarly, it is crucial to hold white actors in nursing accountable, committed to combating racism and the intersecting oppressions that accompany it.

Furthermore, it is essential to recognize the historical role of the Unified Black Movement (In Portuguese, *Movimento Negro Unificado* (MNU)) in the struggle for the implementation of quotas as well as to consider the contributions of black authors who discuss the implications of intersectionality in inclusion policies. These voices are crucial for a deeper understanding of the dynamics of oppression and for the formulation of effective strategies for inclusion and reparations.

To advance in the construction of a more equitable and fair university and course, it is necessary to carry out studies that address intersectionality comprehensively. The recommendation is: (1) The development of anti-racist, anti-sexist, anti-classist and anti-LGBTQIAPN+ phobic curricula and curricular policies appropriate to the reality of young university workers; (2) The profile of students benefiting from financial support programs; (3) The profile of university dropouts; (4) The profile of nursing graduates; (5) The region and centrality of graduates' work.

Strengthening the integration and internalization of ABEn, ANEn, movements such as the MNU, together with NEABI, and student movements is essential. Promoting equity and developing intersectoral actions to maintain and expand educational and social policies are essential to correct social asymmetries in academic training.

Finally, the limitations of this study, such as the difficulty in collecting remote data and the small sample size, highlight the need for further research that uses quantitative and qualitative approaches to explore student characterization and its relationships with retention and training in health in light of intersectionality. These future investigations can provide valuable support for promoting more inclusive and restorative education.

## AUTHOR'S CONTRIBUTIONS

Study design. Diego Lima de Oliveira. Tiago Oliveira de Souza.  
Data acquisition. Diego Lima de Oliveira. Tiago Oliveira de Souza. Thamires Monteiro de Medeiros.

Data analysis and interpretation of results. Diego Lima de Oliveira. Tiago Oliveira de Souza. Thamires Monteiro de Medeiros.

Manuscript writing and critical review. Diego Lima de Oliveira. Tiago Oliveira de Souza. Thamires Monteiro de Medeiros.

Approval of the final version of the article. Diego Lima de Oliveira. Tiago Oliveira de Souza. Thamires Monteiro de Medeiros.

Responsibility for all aspects of the content and integrity of the published article. Diego Lima de Oliveira. Tiago Oliveira de Souza. Thamires Monteiro de Medeiros.

## ASSOCIATED EDITOR

Sabrina da Costa Machado Duarte 

## SCIENTIFIC EDITOR

Marcelle Miranda da Silva 

## REFERENCES

- Antunes VV. Expansão e democratização universitária: a implementação do REUNI na Universidade Federal do Rio de Janeiro. *Rev Habitus*. 2016;14(1):91-9.
- Rocha CMO. REUNI e a precarização do trabalho docente. *Rev Adm Educ*. 2018;9(1). <http://doi.org/10.51359/2359-1382.2018.237529>.
- Universidade Federal do Rio de Janeiro. Página oficial [Internet]. Rio de Janeiro: UFRJ; 2022 [cited 2022 Sep 10]. Available from: <https://ufrj.br/>
- Farranha AC, Silva LS. Interseccionalidade e políticas públicas: avaliação e abordagens no campo do estudo do direito e da análise de políticas públicas. *Rev Aval*. 2021;5(19):44-67.
- Ferreira SC, Jesus LC, Pinto AJCC. A produção do saber-cuidar em enfermagem a partir das interseccionalidades étnico-raciais, de classe e de gênero no Brasil. *Cenas Educ* [Internet]. 2021 [cited 2022 Sep 10];4:e11858. Available from: <https://www.revistas.uneb.br/index.php/cenaseducacionais/article/view/11858>
- Akotirene C. Interseccionalidade. Tradução de Sueli Carneiro. São Paulo: Pólen; 2019.
- Rodrigues C. Atualidade do conceito de interseccionalidade para a pesquisa e prática feminista no Brasil. In: 10° Seminário Internacional Fazendo Gênero; 2013; Florianópolis. Florianópolis: Universidade Federal de Santa Catarina; 2013. p. 1-12.
- Crenshaw K. A interseccionalidade na discriminação de raça e gênero [Internet]. 2022 [cited 2022 Sep 10]. p. 1-10. Available from: [https://edisciplinas.usp.br/pluginfile.php/4253342/mod\\_resource/content/1/InterseccionalidadeNaDiscriminacaoDeRacaEGenero\\_KimberleCrenshaw.pdf](https://edisciplinas.usp.br/pluginfile.php/4253342/mod_resource/content/1/InterseccionalidadeNaDiscriminacaoDeRacaEGenero_KimberleCrenshaw.pdf)
- Avis J. A note on class, dispositions and radical politics. *J Crit Educ Policy Stud*. 2018;16(3):166-84.
- Ferreira MCL, Sena ARMF, Barreira IA. Minorias discriminadas e trabalho qualificado: o acesso de mulheres negras à enfermagem profissional nos anos 30. *Esc Anna Nery Rev Enferm*. 1999;3(1):43-57.
- Salles RS, Faernstein E, Poz MRD, Santos PSMB. REUNI e seus impactos nas instituições federais de educação superior (IFES): uma análise da admissão de docentes de 2007 a 2017. *Rev Bras Polit Adm Educ*. 2020;36(1):310-35. <http://doi.org/10.21573/vol36n12020.101107>.
- Ministério da Educação (BR). Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira. Relatório de curso: Enfermagem: Universidade Federal do Rio de Janeiro: Macaé - 121848 [Internet]. Brasília: INEP; 2019 [cited 2022 Sep 10]. Available from: <https://enade.inep.gov.br/>
- Magalhães RP, Menezes SC. Ação afirmativa na UFRJ: a implantação de uma política e os dilemas da permanência. *O Soc Questão* [Internet]. 2014 [cited 2022 Sep 10];17(32):59-74. Available from: [http://osocialemquestao.ser.puc-rio.br/media/OSQ\\_32\\_3\\_Magalhaes\\_Menezes\\_WEB.pdf](http://osocialemquestao.ser.puc-rio.br/media/OSQ_32_3_Magalhaes_Menezes_WEB.pdf)
- Oliveira AJB, Honorato GS, organizadores. Desafios para o ensino superior brasileiro no contexto contemporâneo. Rio de Janeiro: Faculdade de Educação/UFRJ; 2020.
- Braz MMA. Affirmative policies in Brazil: a ten-years route analysis of law 12.711/2012 (Quotas' law). *SciELO Preprints*. 2022:1-21. <https://doi.org/10.1590/SciELOPreprints.4369>.
- Marinho GL, Paz EPA, Jomar RT, Abreu ÂMM. Brazilian nurses' sociodemographic changes in the first decade of the 21st century. *Esc Anna Nery*. 2019;23(1):e20180198. <http://doi.org/10.1590/2177-9465-ean-2018-0198>.
- Oliveira APC, Ventura CAA, Silva FV, Angotti No H, Mendes IAC, Souza KV et al. State of nursing in Brazil. *Rev Lat Am Enfermagem*. 2020;28:e3404. <http://doi.org/10.1590/1518-8345.0000.3404>. PMID:33331493.
- Machado MH. Perfil da enfermagem no Brasil: relatório final [Internet]. Rio de Janeiro: NERHUS - DAPS - ENSP/Fiocruz; 2017 [cited 2022 Sep 5]. Available from: <http://www.cofen.gov.br/perfilenfermagem/pdfs/relatoriofinal.pdf>
- Lombardi MR, Campos VP. A enfermagem no Brasil e os contornos de gênero, raça/cor e classe social na formação do campo profissional. *Rev ABET*. 2018;17(1):28-46. <http://doi.org/10.22478/ufpb.1676-4439.2018v17n1.41162>.
- Donati L, Alves MJ, Camelo SHH. O perfil do estudante ingressante no curso de graduação em enfermagem de uma faculdade privada. *Rev Enferm UERJ*. 2010;18(3):446-50.
- Mullin EM, Hutchinson JC, Mellano KT, Bird JM, Karageorghis CI. Impact of COVID-19 restrictions on mental health and physical activity among LGBTQAP and heterosexual adults. *J Gay Lesbian Ment Health*. 2021;26(3):289-306. <http://doi.org/10.1080/19359705.2021.1995097>.
- Runkle JD, Yadav S, Kurt M, Green S, Weiser J, Sugg MM. Crisis response and suicidal patterns in U.S. youth before and during COVID-19: a latent class analysis. *J Adolesc Health*. 2022;70(1):48-56. <http://doi.org/10.1016/j.jadohealth.2021.10.003>. PMID:34930569.
- Scroggs B, Love HA, Torgerson C. COVID-19 and LGBTQ emerging adults: risk in the face of social distancing. *Emerg Adulthood*. 2020;9(5):639-44. <http://doi.org/10.1177/2167696820968699>.
- Crepaldi MA, Schmidt B, Noal DS, Bolze SDA, Gabarra LM. Terminalidade, morte e luto na pandemia de COVID-19: demandas psicológicas emergentes e implicações práticas. *Estud Psicol*. 2020;37. <http://doi.org/10.1590/1982-0275202037e200090>.
- Sant'Ana G, Silva CD, Vasconcelos MB. Espiritualidade e a pandemia da COVID-19: um estudo bibliográfico. *Com Cienc Saude*. 2020;31(3):71-7. <https://doi.org/10.51723/ccs.v31i03.726>.
- Lourenço AE, Slomp Jr H, Souza IL, Amaral IBST, Coelho KSC, Cruz KT et al. Trajetória da atenção à saúde em Macaé: desafios e perspectivas. In: Silva SRA, Meynardo R, organizadores. Macaé, do caos ao conhecimento: olhares acadêmicos sobre o cenário de crise econômica. Macaé: Prefeitura Municipal de Macaé; 2019. p. 386-96.
- Manzan JS, Oliveira MC, Melo-Silva LL. Trajetórias de estudantes cotistas para o ingresso numa universidade pública brasileira. *Psicol Estud*. 2023;28:e52127. <http://doi.org/10.4025/psicolestud.v28i0.52127>.
- Santos JRJ. Juventude, universidade e conhecimento: o agir prático das juventudes nos fazeres da universidade [tese]. Salvador: Universidade Federal da Bahia; 2016.
- Mello L, Gonçalves E. Diferença e interseccionalidade: notas para pensar práticas em saúde. *Rev Cronos*. 2010;11(2):163-73.