Health of populations in the Amazon: analysis of productions of a stricto sensu postgraduate program in nursing

Saúde de populações da Amazônia: análise de produções de um programa de pós-graduação em enfermagem stricto sensu

Salud de las poblaciones amazónicas: análisis de las producciones de un programa de posgrado en enfermería stricto sensu

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ABSTRACT
Objective: to characterize the results of academic productions of *stricto sensu* programs as regards health care for traditional Amazon peoples and communities. **Method:** in this quantitative, descriptive, document-based study, data were collected using the Coordination for the Improvement of Higher Education Personnel database and open repositories of a public university, from a postgraduate program in Nursing in the North region, from 2013 to 2020. **Results:** 2020 was the year with the highest number of publications (13 in total), connected with the research line Health Policies in Nursing Care in the Amazon (36 studies). Geographically, 58 productions were from the municipality of Belém, and the descriptor/keyword most used was Nursing (in 37 studies). **Final considerations:** the health policy field displays greatest dedication to studies of traditional populations in the Amazon, and is taking increasing responsibility for continuing studies and social involvement.
Descriptors: Nursing; Nursing Research; Education, Nursing, Graduate; Delivery of Health Care; Ethnicity.

RESUMO
Objetivo: caracterizar os resultados das produções acadêmicas de programas *stricto sensu* quanto à atenção à saúde de povos e comunidades tradicionais da Amazônia. **Método:** estudo descritivo, quantitativo, com base documental. A coleta foi realizada por meio do banco de dados da Coordenação de Aperfeiçoamento Pessoal de Nível Superior e repositórios abertos de uma Universidade Pública, a partir de um Programa de Pós-graduação em Enfermagem da região norte, no intervalo de 2013 a 2020. **Resultados:** o ano de 2020 foi o de maior número de publicações, com 13 no total, vinculadas à linha de pesquisa Políticas de Saúde no Cuidado de Enfermagem Amazônico com 36 trabalhos. Na disposição geográfica, o município de Belém contou 58 produções realizadas, e o descritor/palavra-chave mais utilizado foi Enfermagem, contido em 37 estudos. **Considerações finais:** a área de políticas de saúde revela maior dedicação aos estudos com populações tradicionais da Amazônia, ampliando a responsabilidade na continuidade dos estudos e envolvimento social.
Descritores: Enfermagem; Pesquisa em Enfermagem; Educação de Pós-Graduação em Enfermagem; Atenção à Saúde; Etnicidade.

RESUMEN
Objetivo: caracterizar los resultados de las producciones académicas de programas *stricto sensu* sobre el cuidado de la salud de los pueblos y comunidades tradicionales de la Amazonía. **Método:** estudio descriptivo, cuantitativo, cuya base es documental. La recolección se realizó utilizando la base de datos de la Coordinación para el Perfeccionamiento del Personal de Educación Superior y repositorios abiertos de una Universidad Pública de un Programa de Posgrado en Enfermería de la región norte, desde 2013 hasta 2020. **Resultados:** 2020 fue el año con mayor número de publicaciones, - 13 en total -, vinculadas a la línea de investigación Políticas de Salud en la Atención de Enfermería en la Amazonía, con 36 trabajos. Desde el punto de vista geográfico, el municipio de Belém tuvo 58 producciones realizadas, y el descriptor/palabra clave más utilizado fue Enfermería, presente en 37 estudios. **Consideraciones finales:** el área de políticas de salud revela una mayor dedicación a los estudios sobre poblaciones tradicionales de la Amazonía, aumentando la responsabilidad por la continuidad de esos estudios y la participación social.
Descriptores: Enfermería; Investigación en Enfermería; Educación de Postgrado en Enfermería; Atención a la Salud; Etnicidad.

INTRODUCTION

The traditional people of the Amazon have a unique plurality of socio-environmental, cultural and economic interaction. Their way of life includes habits that require health teams to have a cross-cultural view based on the particular collective context, capable of promoting individualized and specialized care[1]. They are populations in a situation of social vulnerability, characterized by precarious access to health services, observed by higher rates of infant mortality, related to cases of parasites, high rates of unhealthy conditions, poverty, basic sanitation and poisoning when compared to the urban context[2].

Research Article
Artigo de Pesquisa
Artículo de Investigación

In the context of public health, the university has an important responsibility in assessing the impacts on the area where it is located, as it enables the training of critical professionals who respond to social demands[3]. Certainly, science and technology have their contribution in this regard, as they constitute how scientific knowledge is constructed, promoting the dissemination of knowledge through transforming practices[4].

Research, as a mission of the university, seeks professional training that reflects the social and ethical commitment sensitive to Brazilian regional inequalities, necessary for work processes in health. The elaboration of scientific articles can be exercised through the insertion of contents that instrumentalize the academic to produce critical reasoning and present themselves as an innovative agent, through public policies that direct traditional communities to the appreciation and recognition of their relevance[5-7].

The scientific productions of postgraduate programs in the topics related to the research lines that identify them, demand permanent and consistent constructions from their peers, to improve the development and conception of new knowledge, as well as the social insertion and valuation of society.

The reality of Postgraduate programs in nursing, guided by policies that provide conditions for new achievements, strengthen and bring innovations to achieve significant educational, socio-political and scientific/technological impacts for Nursing and Health, such as science, technology and social profession[8].

Thus, the question is: what is the academic production of postgraduate nursing programs at public universities, focused on the health of traditional peoples and communities in the Amazon?

So, the study aimed to characterize the results of academic productions of postgraduate programs regarding health care for peoples and traditional communities in the Amazon.

METHOD

This is a documentary research, with a quantitative approach, of a descriptive nature, carried out through a guided search for information in the database of the Coordination for the Improvement of Higher Education Personnel (CAPES) and open repositories of a Public University, including productions from January 2001 to January 2020.

We highlight the creation and implementation of the PostGraduate Program in Nursing (PPGENF) at the Federal University of Para (UFPa) in 2011, and the offer of the first group in 2012. Thus, the evaluated master's thesis were completed from 2013 onwards.

The analysis was carried out through descriptive statistics, where data collection was initially carried out, preceded by the organization of the evaluated materials and production of the presentation of the acquired elements[9].

The search refinement were master's master's thesis whose search terms show: *Traditional Communities, Indigenous Health, Traditional Populations, Vulnerable Populations, Amazonian People, Quilombola Remnants, Riverside Populations, Rural Population*.

In order to organize and systematize the analysis of the materials, an instrument was created to collect information from the studies, with the following items: identification of the work (dissertation), objective of the study, keywords/descriptors, research line, method, study location and target audience, which configure the study variables.

The following exclusion criteria were established: studies outside the period proposed, as well as studies that were not indexed in the places indicated for research.

Data were organized in Microsoft Excel® spreadsheets, with description of the following information: program, research line, year of support, study title, study object, advisor, geographic location and target audience. Subsequently, the visualization of the results referring to the research line and scope of the target audience were established through graphs and tables. For tabulation of data related to geographic location, the My Maps® program, made available by the Google® platform, was used.

As for the use of keywords and descriptors, each item was inserted into the online platform called Mentimeter®, which allows the instantaneous creation of presentations through various modalities, such as polls, questions and questionnaires. The modality chosen for this study was the word cloud, which inserts all the words mentioned in a single presentation, expanding and centralizing those that are most repeated in the studies.

The research protocol was not submitted for evaluation by the ethics committee for research with human beings, as it is documental in nature. However, it was performed with scientific rigor in order to produce accurate and reliable results.

RESULTS

In identifying the master's thesis defended in the PPGENF, a total of 79 (seventy-nine) master's thesis were available in the Institutional repository of UFPA, and on the official website of the Postgraduate Program Program in Nursing at UFPA were evaluated, following the steps below: access to the website, in the theses and master's thesis icon and choose the item master's thesis.

The PPGENF began its activities at the academic master's level from January 1, 2011, with the first class offered in 2012. Its main objective is to develop professionals with skills, foundations and critical thinking based on experiences about the context of living in the Amazon region, contributing to the social, economic and political scope of the space.

To determine the quantitative difference, the year and research line in which the papers were prepared were evaluated. Data are shown in Table 1.

TABLE 1: Master's thesis concluded by year and research line of the Postgraduate Program in Nursing (PPGENF). Belem, PA, Brazil, 2021.

Research lines	2013	2014	2015	2016	2017	2018	2019	2020	Total
Line 1: Health Policies in Amazonian Nursing Care	2	6	4	4	7	5	4	4	36
Line 2: Education, Training and Management for the Practice of Health Care and Nursing in the Amazon Context	3	3	3	4	3	5	3	9	33
Not mentioned	-	1	2	2	2	1	2	-	10
Total	5	10	9	10	12	11	9	13	79

Source: Data from PPGENF (UFPA), 2021.

On that occasion, a total of 36 master's thesis were carried out in the research line 1: Health Policies in Amazonian Nursing care and 33 master's thesis in the research line 2: Education, training and management for the practice of health care and nursing in Amazon. Still, ten master's thesis did not mention in their textual body the research line referring to their development.

In the delimitation of the target population of the master's thesis carried out by the PPGENF, 11 (eleven) variants were counted to assess which publics covered the highest index in the program, as shown in Figure 1.
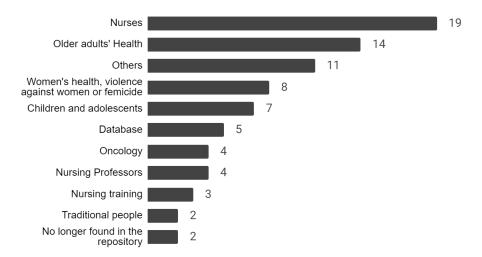

FIGURE 1: Target audience for master's thesis from the Postgraduate Program in Nursing (PPGENF). Belem, PA, Brazil, 2021. Source: PPGENF, 2021.

Considering the distribution of data referring to the target audience of the analyzed master's thesis, it was verified that the highest index in the program is from master's thesis that cover the professional function focused on nursing care (n=19). Then, there are the studies of the older adult population (n=14). On the other hand, when compared to productions aimed at teaching, there is a smaller number of master's thesis (n=2) and, consecutively, the "others" axis with a total of 11 publications, addressing populations in general without distinction of age group and axis.

Research Article
Artigo de Pesquisa
Artículo de Investigación

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There are also themes related to women's health and violence against women or femicide (n=8), children and adolescents (n=7), use of databases (n=5). After that, the Oncology axis (n=4) and the Nursing Training axis (n=3) are observed. Finally, two works were identified that, despite collecting initial information such as name and supervisor, after a month, were no longer found in the repository or in the database made available by the repository.

Figure 2 presents the geographic layout of the works produced directed to specific locations, with strategic actions in person, or through primary or secondary data.

FIGURE 2: Geographical location of master's thesis developed in the Postgraduate Program in Nursing (PPGENF) at UFPA. Belem, PA, Brazil, 2021. Source: Google My Maps; PPGENF, 2021.

The city of Belem had 58 productions performed, Benevides with five and Ilha do Combu with three works performed. These were the regions that had more than one production in their regional context, followed by the city of Ananindeua and Alter do Chao, as the administrative district of Santarem, that had only one production. It was found that a dissertation had its investigation directed to another country (Colombia).

It was also verified that six works, developed through secondary data such as Secretariats or Information Systems, had the possibility of covering all cities, regions of Para and Brazil, from the access to information available online.

The main study settings observed in face-to-face activities were: Hospitals, UFPa Nursing University, Primary care center (PCC), Psychosocial Care Centers (CAPS) and the Family Health Strategy (FHS). Research that were no longer identified in the repository or did not mention the place where the study was developed, were disregarded.

The main keywords and descriptors included by the authors were also collected, which enabled the creation of a word cloud displaying the most repeated words in the center, as shown in Figure 3.

FIGURE 3: Keywords and Descriptors of the master's thesis tabulated in the Postgraduate Program in Nursing (PPGENF) at UFPA. Belem, PA, Brazil, 2021. Source: Mentimeter, PPGENF, 2021.

The elaboration was carried out through the Mentimeter® platform, which enabled the creation of interactive and dynamic presentations with emphasis on health education and older adults.

The item that was most repeated was "Nursing", with 27 keywords and ten descriptors, totaling in 37 studies. Then, "Older adults" was identified, with 11 keywords and two descriptors, "Health Education" with 11 keywords and one descriptor, and "Violence against women", with five keywords. The other words present in Figure 2 were mentioned two to four times in the data tabulation. Words mentioned only once were not considered in the study.

DISCUSSION

Health education has the constant challenge of adapting to regional needs and the demands of health services, considering cultural and ethnic diversity. A challenge constantly presented to researchers involved in Postgraduate programs in the Amazon region and based on public notices aimed at specific populations. Scientific productions must occasionally include socio-environmental dynamics, which meet the characteristics of the Amazon so that it is committed to responding to the regional demands in which the program is inserted.

The improvement of universities to respond to this has been notorious in recent decades, mainly through public education institutions, as there is a mobilization to meet the evident needs of the traditional Amazonian people, especially through research programs and university outreach. It should be noted that the approval of affirmative action policies for the entry of Indigenous peoples and Quilombolas, through special selection processes, a quota system or reservation of vacancies, in Postgraduate program, ensure a concise position in accordance with the demands of the communities, with the aim of overcoming ethnic-racial inequalities. But it is necessary to enable permanence conditions, as well as to understand and value Indigenous ancestral science in academic spaces[10].

In Postgraduate programs, the reality is different. By the year 2018, around 134 public universities had adopted the affirmative action policy for admission to postgraduate courses[11]. This insertion policy, which expands the ethnic-cultural diversity included in public services, was reinforced through Normative Ordinance #13 of May 11, 2016 and declares the need to adopt the inclusion of blacks, Indigenous peoples and people with disabilities in Postgraduate programs at public institutions at the level of affirmative action.

The first institution that adopted the implementation of quota systems in its Master's and PhD program was the State University of Bahia (UNEB), in 2002. In some institutions, there is implementation through Student Reception and Diversity programs, as a strategy of access and support based on social transformation[12]. The insertion of these policies is fundamental and necessary, especially in the scenario of relations between communities and the university, incorporating a dynamic between territories, spaces and populations. On the other hand, the structural inequality that reproduces the dispute of human relations is revealed, including the field of development of practices and research in traditional lands or regions[13].

The Postgraduate course aims to elucidate and contribute to the promotion of transformations in the communities in which they operate, enabling professional and teaching training based on multiple experiences in which the social, economic and political issues of the region where they are inserted[14], have repercussions through the research lines and through training and education focused on the context of sociodiversity, whose objective is to develop scientific skills in professionals based on the Amazonian context, contributing to their concentration area. Health education, especially focused on Nursing, fosters scientific production combined with social, epidemiological changes and contemporary demographic profiles. Thus, project initiatives at Postgraduate level become even more relevant, since the construction of knowledge is associated with regional demands, strengthening the concept of nursing as a science[15]. Therefore, it is necessary to prioritize themes that allow a critical and constructive analysis based on local demands.

Among the research lines included in the PPGENF at UFPA, some unique points stand out. The first line emphasizes the SUS, with the objective of covering epidemiological indices and indicators for the northern region. In the second line, the focus is on obtaining studies that relate educational construction with a transforming vision capable of favoring professional training in health. So, it was possible to identify that, despite the related contexts, there is no balance in the productions of the lines, presenting deficits in the line of education, revealing the need to restructure the teaching staff and interdisciplinary projects that contribute to the strengthening of the line and the PPGENF.

In the evaluation processes coordinated by the Coordination for the Improvement of Higher Education Personnel (CAPES), the research lines, based on teaching and student production, are one of the modalities to be evaluated.

However, the need to review the evaluation criteria is highlighted, considering a broader aspect, passing through a validation that considers all the subjects involved[16].

It is important to emphasize that the academic production of a program is directly related to the planning and effectiveness of the professors involved in producing in pairs between teachers and students, shaping their activity proposal within the presentation of the Postgraduate program. This conviviality is also shown to be an important constituent of the interaction in scientific production, especially by identifying the individualities of the student along with the research line and the professor's experience, showing that this relationship, when successful, enables greater resolution and efficiency in the elaboration of relevance searches. Furthermore, it is considered important to highlight that the dedication of the teacher-researcher's workload plays a key role in productivity, as well as in gender issues, marital status and family support conditions[17].

In addition to the points mentioned, regional asymmetries and social impact have been referenced in evaluations[18]. With the contribution to increase the quality of Postgraduate courses, public notices were created to promote training, through an infrastructure designed with conditions to increase the scientific skills of the courses offered.

The National Program for Academic Cooperation in the Amazon (PROCAD/Amazon), prepared by CAPES, is characterized by being one of the main actions to reduce, through collaboration between institutions, existing regional imbalances, which is an academic cooperation project in the Amazon which aims to strengthen Postgraduate studies in the North made available by CAPES. This has been an important instrument to reduce the asymmetries observed in the results of the evaluations, which have shown a tendency for programs in the south and southeast axis to be more qualified. Therefore, a significant change is expected in the next evaluations, considering that it is a cooperation system.

It should be noted that there are other issues inherent to the first years of the PPGENF. In 2012, a four-month university strike began, which interferes not only with the academic calendar, but with master's thesis defenses in that period, that is why the evaluations of the results were carried out from 2013 to 2020. These are organizational implications, but which contribute to academic and work performance, but certainly do not prevent the implementation of production.

The production of knowledge about population groups in the Amazon permeates their natural and social particularities, which is shaped by different realities according to each region[19].

The construction of scientific knowledge advanced with the expansion of Postgraduate programs, but above all by public notices directed to the region, such as PROCAD/Amazon, which has boosted production. The PPGENF/UFPA had two projects approved in the last two years, which enabled the incorporation of a network of collaborators from other institutions and master's scholarships, allowing students to be more dedicated to scientific production. Involvement in this notice enhances the quality of the productions, but it is necessary to consider the program's research lines to consolidate the area of concentration. In addition, the scholarships made available make it possible to pay for travel between territories, and consequently encourage the expansion of the geographical area under study.

Although productions have increased in recent years, it is noticeable, according to Figure 1, that studies have been concentrated in the metropolitan region of Belem, which means a limitation to expand beyond the surroundings of the University. The insertion of new territories based on multicentric studies makes it possible for this profile to change, but above all, it increases the possibility of acceptance by quality scientific journals. In addition, the historical and bureaucratic difficulties of research with traditional Amazonian peoples, especially the original peoples, constitute a key point that must be strategically planned through projects that involve the teaching staff of the research lines.

Recognition of the important contributions that can be made from studies involving health policies with Indigenous peoples and traditional communities should be considered a priority. The PPGENFs that are inserted in these contexts must articulate with researchers and Indigenous and Quilombola leaders, to overcome the bureaucratic and geographic challenges of the territories that involve these groups. The development of research in this area favors the formation of human resources, but also responds to the demands of health services that are sometimes neglected.

It became evident that the learning methods and the composition of knowledge are still centered on homogeneous, universal and western characteristics. That said, traditional literary narratives, absent of formality, become unfeasible and, consequently, the identity of traditional peoples is threatened[20].

The construction of new research with these groups is an important resource for Postgraduate studies in the North region. For this reason, the inclusion of curricular activities in higher education should be on the agenda in collegiate

meetings[6], permeating the teaching pedagogical skills of professors, as well as the understanding of the multiple determinations that involve the different territories of the Amazon[19]. It is also necessary to rethink not only the population under study, but constantly promote teacher qualification in order to expand the production of knowledge.

Limitations of the study

The limitations of the study were related to the information system of the repositories used, which delimited the focus only on Postgraduate productions at the University.

FINAL CONSIDERATIONS

The study allowed a broad perception of the general characteristics of the academic productions developed, mainly because it is a program implemented in an institution that brings together an abundant cultural and ethnic diversity.

The mapping makes the possible fulfillment of the program's implementation objectives more perceptible, conceiving a constant reflection on what it means to contribute socially, politically and economically to the peoples of the Amazon.

It is understood that with the implementation of projects that are relevant and pertinent to the Amazonian context, a better perception of regional needs is conceived, in a holistic way and based on the peculiarities of each people and population. Therefore, the advance in the creation and formation of productions that increasingly understand the decentralization of regional geographic spaces, increases the responsibility for the continuity of studies and social involvement.

REFERENCES

1. El Kadri MR, Santos BS, Lima RTS, Schweickardt JC, Martins FM. Floating Primary Health Center: a new approach to Primary Care in the Amazon, Brazil. Interface (Botucatu), 2019 [cited 2021 Oct 02]; 23: e180613. DOI: https://doi.org/10.1590/Interface.180613.
2. Ruckert B, Cunha DM, Moderna CM. Sa Healthcare knowledge and practices of the rural population: an integrative literature review. Interface (Botucatu), 2018 [cited 2021 Oct 02]; 22 (66): 903-14. DOI: https://doi.org/10.1590/1807-57622017.0449.
3. Filho WRC, Wood Junior T. Evaluación del impacto de las universidades en sus comunidades. Cad. EBAPE.BR, 2021 [cited 2021 Oct 13]; 19 (3): 496-509. DOI: https://doi.org/10.1590/1679-395120200089.
4. Silva JP. Health promotion in primary education: perceptions of bachelor's degree with a teaching diploma in nursing students. Rev. Gaúcha Enferm, 2018 [cited 2021 Oct 21]; 39: e2017-0237. DOI: https://doi.org/10.1590/1983-1447.2018.2017-0237.
5. Moraes NR, Souza FC, Marchetti CTB, Moraes FG, Fonseca JJ. Interdisciplinarity, criticism and social and environmental training in the university. Revista Observatório, 2019 [cited 2021 Oct 21]; 5(5): 890-905. DOI: https://doi.org/10.20873/uft.2447-4266.2019v5n5p890,
6. Castro NJC, Cavalcante IMS, Palheta ASE, Santos DN. Inclusion of undergraduate nursing subjects about traditional populations from the amazon region. Cogitare Enfermagem, 2017 [cited 2021 Oct 21]; 22 (2):e49730. DOI: http://dx.doi.org/10.5380/ce.v22i2.49730,
7. Bordenave JD, Pereira AM. Estratégias de ensino-aprendizagem. Petrópolis: Vozes; 2016. [cited 2021 Oct 21] Available from: https://www.uc.pt/fmuc/gabineteeducacaomedica/recursoseducare/livro17.
8. Erdmann AL, Peiter CC, Lanzoni GMM. Brazilian research groups in nursing: comparison of 2006 and 2016 profiles. Rev Gaúcha Enferm. 2017 [cited 2021 Nov 06]; 38(2):e69051. DOI: https://doi.org/10.1590/1983-1447.2017.02.69051.
9. Sampaio NAS, Assumpção ARP, Fonseca BB. Estatística descritiva. Belo Horizonte: Editora Poisson; 2018. [cited 2021 Nov 25] Available from: https://www.poisson.com.br/livros/estatistica/volume1/,
10. Calegare MGA, Meneze TF, Fernande FOP. Ufam indigenous post-graduants: its views on postgraduate programs, academic theories and institutional incentives. Revista de Psicopedagogia, Psicologia escolar e Educação, 2017 [cited 2021 Nov 17]; 19(1):350-73. Available from: https://periodicos.ufam.edu.br/index.php/amazonica/article/view/4664/3791.
11. Venturini AC, Feres Júnior J. Affirmative action policy in graduate studies: the case of public universities. Cad. Pesqui., 2020 [cited 2021 Nov 25]; 50 (177): 882-909. DOI: https://doi.org/10.1590/198053147491.
12. Universidade Federal do Sul e Sudeste do Pará (UNIFESSPA). Pesquisa diagnóstico: programa de acolhimento estudantil e diversidade indígenas e quilombolas na Unifesspa - 2016. Pará; 2017. [cited 2021 Dec 2] Available from: https://proex.unifesspa.edu.br/images/conteudo/proex/Editais/PESQUISA_DIAGNOSTICO_Acolhimento_Estudantil_e_Diversidade_2016.pdf.
13. Franco M. A emergência da vida para superar o anestesiamento social frente à retirada de direitos: o momento pós-golpe pelo olhar de uma feminista negra e favelada. Porto Alegre: Editora Zouk; 2017. [cited 2021 Dec 2] Available from: https://www.editorazouk.com.br/Capitulo-MarielleFranco.pdf.
14. Alves LR, Giacomini MA, Teixeira VM, Henriques SH, Chaves LDP. Reflections on graduate professor training. Esc. Anna Nery, 2019 [cited 2021 Dec 2]; 23(3):e20180366. DOI: https://doi.org/10.1590/2177-9465-EAN-2018-0366.
15. Ximenes Neto FRG, Lopes Neto D, Cunha ICKO, Ribeiro MA, Freire NP, Kalinowski CE, et al. Reflections on Brazilian Nursing Education from the regulation of the Unified Health System. Ciênc. saúde coletiva, 2020 [cited 2021 Dec 2]; 25(1):37-46. DOI: https://doi.org/10.1590/1413-81232020251.27702019.
16. Barata RB. Necessary changes in the evaluation of graduate programs in Brazil. Interface (Botucatu), 2019 [cited 2021 Dec 7]; 23:e180635. DOI: https://doi.org/10.1590/Interface.180635.

17. Barros SCV, Silva LMC. Career development of teaching researchers in Brazil: a gender analysis. Arquivos Brasileiros de Psicologia. 2019 [cited 2022 Feb 6]; 71 (2):68-83. Available from: http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1809-52672019000200006&lng=pt.

18. Parada CGL, Kantorski LP, Nichiata LYI. N New paths for the assessment of Brazilian postgraduation and challenges in the Nursing area. Rev Gaúcha de Enferm., 2020 [cited 2022 Feb 6]; 41(esp):e20190359. DOI: https://doi.org/10.1590/1983-1447.2020.20190359.

19. Colferai SA. Research in the amazon: historical notes for the production of communicational knowledge. Revista Observatório. 2019 [cited 2022 Feb 6]; 5(2):153-73. Available from: https://sistemas.uft.edu.br/periodicos/index.php/observatorio/article/view/6036.

20. Kawakami EA. Curriculum, disturbances and challenges: indigenous people in Brazilian universities. Rev. Bras. Educ. 2019 [cited 2022 Feb 6]; 24: e240006. DOI: https://doi.org/10.1590/S1413-24782019240006.