

## Internationalization to increase the production of knowledge in nursing: a reflection study

Internacionalização para o incremento da produção de conhecimentos em enfermagem: estudo de reflexão

Internacionalización para aumentar la producción de conocimiento en enfermería: un estudio de reflexión

Margareth Santos Zanchetta<sup>I</sup> , Márcia Teles de Oliveira Gouveia<sup>II</sup> ,  
Cândida Caniçali Primo<sup>III</sup> , Cristina Rosa Soares Lavareda Baixinho<sup>IV</sup> ,  
José Carlos Marques de Carvalho<sup>V</sup> , Manuel Carlos Rodrigues Fernandes Chaves<sup>VI</sup> ,  
Marcelo Medeiros<sup>VII</sup> , Cristianne Maria Famer Rocha<sup>VIII</sup> 

<sup>I</sup> Toronto Metropolitan University, Toronto, Ontário, Canadá

<sup>II</sup> Universidade Federal do Piauí, Teresina, Piauí, Brasil

<sup>III</sup> Universidade Federal do Espírito Santo, Vitória, Espírito Santo, Brasil

<sup>IV</sup> Escola Superior de Enfermagem de Lisboa, Lisboa, Portugal

<sup>V</sup> Escola Superior de Enfermagem do Porto, Porto, Portugal

<sup>VI</sup> Escola Superior de Enfermagem de Coimbra, Coimbra, Portugal

<sup>VII</sup> Universidade Federal de Goiás, Goiânia, Goiás, Brasil

<sup>VIII</sup> Universidade Federal do Rio Grande do Sul, Porto Alegre, Rio Grande do Sul, Brasil

### Abstract

**Objective:** reflect on opportunities for the internationalization of nursing in Lusophone countries provided by an international network of nursing knowledge. **Method:** a reflexive method leading to the modified perception of a given situation leading to new ideas, revealing themes of analysis and proposals for possible solutions through an action plan. This reflection focused on interdisciplinary dialogues, methodological-conceptual innovation, and strengthening of leadership in nursing. **Results:** the reflection focused on: 1) the dialogue beyond the Lusophone cultural and scientific context for the Network to be recognized as a substantial intellectual partner; 2) the incorporation of multidisciplinary approaches, references, and research designs; and 3) the mobilization of knowledge about social causes to strengthen global nursing leadership in issues of social justice and health equity. **Final considerations:** Lusophone nursing has expertise to innovate with strategies to strengthen internationalization.

**Descriptors:** Science and Development; Knowledge; Information dissemination; Nursing Research; Education, Graduate

## Resumo

---

**Objetivo:** refletir sobre oportunidades para a internacionalização da Enfermagem em países lusófonos proporcionadas por uma rede internacional de conhecimentos em Enfermagem. **Método:** método reflexivo que conduz à percepção modificada de uma dada situação levando a novas ideias, revelando temas de análise e propostas de possíveis soluções através de um plano de ação. A reflexão concentrou-se em diálogos interdisciplinares, inovação conceitual-metodológica e fortalecimento da liderança em Enfermagem. **Resultados:** a reflexão focalizou: (a) o diálogo além do contexto cultural e científico lusófono para a Rede ser reconhecida como parceiro intelectual substancial; (b) a incorporação de abordagens, referenciais e desenhos de pesquisa multidisciplinares; e (c) a mobilização de conhecimento sobre causas sociais para o fortalecimento da liderança da Enfermagem global nas questões de justiça social e equidade em saúde. **Considerações finais:** a Enfermagem lusófona possui *expertise* para inovar com estratégias para reforçar a internacionalização.

**Descritores:** Ciência e Desenvolvimento; Conhecimento; Disseminação de informação; Pesquisa em Enfermagem; Educação de Pós-Graduação

## Resumen

---

**Objetivo:** reflexionar sobre las oportunidades de internacionalización de la Enfermería en los países de lengua portuguesa proporcionadas por una red internacional de conocimiento en Enfermería. **Método:** método reflexivo que conduce a una percepción modificada de una situación que lleva a nuevas ideas, revelando temas de análisis y propuestas de posibles soluciones por medio de un plan de acción. La reflexión se centró en los diálogos interdisciplinarios, la innovación conceptual-metodológica y el fortalecimiento del liderazgo en enfermería. **Resultados:** la reflexión tuvo como foco: (a) el diálogo más allá del contexto cultural y científico de la lengua portuguesa para que la Red sea reconocida como un socio intelectual sustancial; (b) la incorporación de enfoques, referencias y diseños de investigación multidisciplinares; y (c) la movilización de conocimiento sobre las causas sociales para fortalecer el liderazgo mundial de enfermería en temas de justicia social y equidad en salud. **Consideraciones finales:** La Enfermería em países de lengua portuguesa tiene el *expertise* para innovar con estrategias para reforzar la internacionalización.

**Descriptor:** Ciencia y Desarrollo; Conocimiento; Difusión de la Información; Investigación en Enfermería; Educación de Postgrado

## Introduction

Nursing is taught, learned, and practiced in a world with enormous socioeconomic, ethnic, gender, and social justice inequalities. These themes have become global by recognizing the diverse inequities of opportunities that affect both teachers and students alike. Thus, the existence of networks in nursing as a social phenomenon that enables us to recognize that, in certain geographic regions, such networks expand access to resources, reaching new levels of scientific production, and expanding educational practices.

The strength and capacity for mutual assistance for nursing teaching and research among universities in Portuguese-speaking countries is beyond doubt. This internationalization of Lusophone (Portuguese-speaking) nursing education is mainly defined by the mobility between Brazil and Portugal; fundamentally, by students in PhD programs and professors who stay abroad to conduct post-doctorate research. This networking occurs in the wake of official scientific cooperation agreements or even due to personal contacts that emerge in professional networks. The intensification of activities among research groups, and the evaluation and qualification of projects in graduate programs reflects how the intellectual and philosophical proximity of these professionals extends and sustains bolder, innovative, and more expansive initiatives to many other students, researchers, and academics.

Acting individually or collectively, the growing and cumulative activity of these individuals has consolidated the objectives of a professional network focussed on learning and innovation.<sup>1</sup> Thus, nursing knowledge is produced and circulated in both countries, confirming how Lusophone internationalization systematically learns about itself and its processes, a feedback loop that is considered one of the main features of a network.<sup>1</sup> The development of connections within virtual social communities is based on structural and relational roots that, in return, help value the relationships that mediate the openness and advocacy of this community.<sup>2</sup>

It remains, therefore, to describe and characterize the Lusophone internationalization of its nursing education, even if still very restricted in terms of the number of beneficiaries and current limited inclusion of undergraduate students. Doing so will recognize the Lusophone nursing network's potential to serve as a parameter, example, and inspiration for the future functioning of a Nursing Knowledge Network (NKN), an international nursing knowledge group of interest that is in its early stage of development. But we also need to make sure that both Brazil and Portugal are ready to acknowledge other conceptual and methodological perspectives, different stages of scientific maturity, different political agendas, and different levels of awareness and self-criticism about their own stage of sophistication and rigor in the production of knowledge in its most diverse forms.

Recognizing, developing, and producing forms of knowledge (e.g., Carper's model of empirical, aesthetic, political, and theoretical knowledge, which has influenced the adoption of creative approaches in curriculum<sup>3</sup> to include personal stories and the broad criticism of art, principles, and codes, among others) has an extensive meaning for a collective responding to the

current expectations of nursing in collaborating with the achievement of the Sustainable Development Goals.<sup>4</sup> Today nursing knowledge transcends that which can be acquired through individual erudition, requiring a future vision that considers the emergence and contingency of macro factors that

[...] exemplifies the existence of core nursing values as a fundamental reason that multiple ways of knowing, including personal knowing, can work in the everyday practice world. We come to know those core values—to engage with them, reflect on them and wrestle with them—through the dialectic of our disciplinary theorizing and philosophical work.<sup>4,6</sup>

Considering pathways toward strengthening strategies for the internationalization of nursing through multidimensional actions, this article aims to reflect on opportunities for the internationalization of nursing in Lusophone countries provided by an international network of nursing knowledge. This second reflective exercise was generated in response to information provided by 24 nursing education institutions in Brazil and Portugal, as part of an international environmental scan of institutional resources for the creation of a NKN.<sup>5</sup> A comprehensive report highlighted the common challenges, potential, and areas for professional development, and proposals to increase the skills of teachers and students for the production of knowledge in various contexts of teaching-learning, research, and outreach. The hope is that soon the NKN itself can lead to an innovative process, involving all social actors, researchers, graduate students, research centers, knowledge production, technology, and innovation that, although specific to nursing, are interdependent, as has been proposed for other knowledge networks.<sup>6</sup>

## Method

This article was inspired by the so-called “reflexive method” of research.<sup>7</sup> Reflection performed in a structured way can induce a perception of a modified perspective about a given situation. As a result, new ideas can emerge and potentially reveal novel themes and ideas for analysis and problem solving. Reflection can thus contribute to the systematic description of facts, reconsideration of feelings, and a review of negative and positive elements related to the resulting learning, which can lead to the proposition of feasible solutions through an action plan. The first reflection, conducted by the same authors as the NKN report,<sup>8</sup> took place during the writing of a scientific manuscript, focusing on the possibilities and particularities Portuguese-speaking participation in higher education institutions in the NKN. This initial work was developed between

January and May 2022, using the conceptual framework proposed by Prug and Prusak,<sup>1</sup> about a knowledge network that considers individuals and teams, as well as organizational, spatial, and disciplinary boundaries to invent and share a body of knowledge.

The present reflection was carried out in September and October 2022, after recognizing a gap that allowed us to revisit some points not sufficiently addressed to produce a more extensive analysis and, with this, also complete the collective reflexive phase. The working method included the following steps:

- 1) request co-authors to continue the previous work with the opportunity to confront ideas and defend themes they considered a priority, keeping in mind the contexts of professional practice, as well as the critical positioning regarding the stage of advancement of knowledge production in their respective institutions, and in the current contexts of nursing education and research in their countries.
- 2) synthesis of contributions by the first and second authors, initiated with critical reading of any additions made to the original text, followed by categorizing them as insights or reflection, as well as problems and clues to their solutions.
- 3) organization of the content, followed by confirmation by the co-authors.
- 4) identification of emerging and individual questions remaining to be answered.
- 5) collective production of the analytical-discursive text; and
- 6) consideration of proposals for an action plan, reviewing its feasibility and operability.

## Results

Understanding that some demystification of nursing research practice can bring students closer to experienced professors and researchers, allowing the creation of mentoring and research counseling relationships so that global phenomena of nursing interest are investigated, we, as authors point out that producing knowledge does not refer exclusively to the research context. There is certainly also a benefit to professors and researchers to find new talents and future professionals towards the formation of a new generation of nursing researchers.<sup>9</sup> The NKN also focuses on the construction and development of capacities in research and training in professional leadership for teachers.

The NKN assumes that the production of knowledge in nursing can occur in the classroom, in a practice laboratory, in the internship field, in an administrative context, and in preceptorship activities, having as social actors undergraduate and graduate students, professors, as well as other professionals involved in direct and indirect supervision of students. Such knowledge production also extends to health service management activities and certainly includes research activities in their diversity of methodological designs.

It is necessary to clarify that the questions presented below did not initiate the reflexive work method<sup>7</sup>; that is, such questions emerged during the reflexive process. Thus, the authors looked at insights that inspired the following questions and points for reflection:

- 1) To establish a dialogue beyond the Lusophone cultural and scientific context, and to be recognized as a substantial intellectual partner, what should Lusophone nursing abandon, renew, and innovate to expand the internationalization of nursing graduate studies?
- 2) How do we incorporate an approach used in a variety of research domains, bringing references from disciplines besides nursing to allow the expansion of knowledge in research, methodologies, and theoretical and conceptual frameworks?
- 3) To contribute to the strengthening of global nursing leadership that expands the role of the profession in issues of social justice and equity in health, how can Lusophone nursing mobilize its knowledge about global social causes?

In the following paragraphs, some perspectives on change, action, considerations, and the reflections that emanated from them are proposed, aiming at the success of Lusophone participation in the NKN through internationalization.

#### Recognizing the intellectual contributions of the Lusophone context

The proposal for the creation of the NKN brings the possibility of celebrating and mobilizing the creative potential of teachers and students. With boldness and audacity, they add their talents to produce knowledge and valorize nursing science by consolidating and refining its teaching and research practices. Lusophone nursing seems to us particularly ready to transfer its expertise built over decades in internationalization and creation of intellectual cooperation dynamics for the sharing of knowledge. Lusophone members can enhance the internationalization processes in nursing graduate studies, through the incorporation of interdisciplinary activities with related disciplines of social, human, and technological sciences. The

outcomes already documented across different activities within Lusophone nursing, such as academic mobility among its members, research cooperation, training projects integrated with disciplines organized or offered by the network itself, holding international events, partnerships of intellectual and technological production, among others, offer examples of what can be shared within the NKN.

The NKN values collaboration for joint and reciprocal initiatives, aiming at strengthening relationships between the members and the institutions involved. While the NKN leads the search for input from international nurse researchers, the Lusophone members can also propose innovations. In addition to paths little explored in Lusophone nursing, we propose to seek advice with nursing researcher around the world who participate in multidisciplinary teams for the sharing of advice for the composition and operationalization of such teams. Another possible action would be to enroll in international interest groups on global health and transformative and emancipatory education by experimental pedagogical approaches with new teaching methods, new perspectives of learning evaluation, new understandings of what constitutes academic success, and success in scientific endeavours. Another necessary change in promotions would be the recognition that the NKN brings, as an opportunity to its members, the search for alternative sources of research promotion, whether in the business sector, start-ups, international social development agencies, or non-governmental organizations (NGOs), among others.

Incorporation of multidisciplinary approaches, references, and research designs

It is understood that the process of internationalization of partnerships and initiatives aimed at by nursing profession offers unique opportunities for the expansion of knowledge because through such international engagement Lusophone nursing encounters research methodologies unknown in its practice. The reach out of other scientific communities (even if the language barrier still exists) is today a requirement for peer recognition and opportunities for future academic and scientific partnerships. Working in networks, as done by scientists and other knowledge producers, is today a trend adopted by several disciplines,<sup>10</sup> but yet only timidly practiced by Lusophone nursing, specifically in initiatives of joint knowledge production. The approach with experienced scientists in this area can be an accelerating factor for the refinement of the mastery of such innovative methodologies.

The opportunities for international actions provided to nursing researchers in institutions

are diverse, and can be highlighted in the improvement of languages, participation in research groups, insertion into networks with researchers experienced in advanced stages of scientific maturity. There is also the possibility of developing integrated work with conceptual, methodological, and management perspectives different from those usually used. Such opportunities for networking of knowledge have long been recognised. In 2012, authors highlighted that the experiential work and knowledge of members of different research teams integrated in a network facilitates training and collaborative research.<sup>11</sup> In addition, this process promotes the incorporation and exchange of researchers in training, preferably interdisciplinary, for the acquisition of competencies already developed in other groups.

In this context, collaborative activities performed in a network can expand and improve a body of scientific knowledge, and then improves nurses' engagement in evidence-based practice, which will provide a practical activity based on theoretical. In addition, joint projects and the exchange of experiences are favored, as is the mobility of researchers through the dissemination of collaboration offers.<sup>11</sup> Other more specific actions that can be adopted include: a) expanding invitations to foreign researchers from other disciplines for scientific sessions, opening lectures, public debates, etc.; (b) incorporate into research projects theoretical and conceptual frameworks proposed by other disciplines; and, (c) reproduce research methodologies adopted by other disciplines and countries, especially within Lusophone nursing research that remains unknown or poorly applied methods of data collection and analysis.

#### Strengthening global nursing leadership in social justice and health equity

The use of knowledge in nursing in defense of its professionals and the assisted and cared population constitutes a political tool for actions to defend the social well-being of populations. Mastering the very process of knowledge production that nursing uses, in its most diverse practice scenarios, represents the freedom and autonomy to use one's own voice and power to recreate new scenarios and contexts. The presence of emerging leaders within the NKN is necessary, helping to characterize the network as something intrinsic to the global nursing community in the coming decades, given the historical moment of nursing, which today requires the awareness of our gregarious potential and action. The presence of nursing leaders capable of politically influencing the formulation of public policies, through instrumental actions, is recognized as an area of priority that can be met by the exchange of expertise between



international leaders working in the NKN.

To optimize the visibility of the profile of socially engaged and politically active nursing professionals, it is necessary to increase the publication of manuscripts on political actions and other initiatives in defense of the rights of the population, especially that of political literacy, extended to teachers and students. Likewise, it is essential to publish manuscripts that address conceptual aspects and processes of knowledge production in partnership with civil society. More emancipatory trends used in the conception of research projects involve the population, from the stage of formulation of research questions, data collection strategies, as well as in the phases of analysis/interpretation of results/findings. Moreover, redesigning the very notion of collaborators in research requires abandoning the posture of considering the target population as a mere source of information/data. To this end, the production of knowledge by Lusophone nursing, in its various forms, requires daring, creativity and determination to establish partnerships in strict intellectual collaboration with individuals and groups from various segments of society who are active in the same matter (e.g., NGOs, religious organisations, community associations, professional trade unions, etc.).

Portugal and Brazil are sources of extensive historical knowledge and have more recently gained knowledge about issues related to populations seeking refuge/political asylum and as immigrants. In addition, knowledge about health inequities experienced by their populations, due to the impairment of social determinants of health (e.g., healthy child development, access to health services, health literacy, emotional coping mechanisms, social support network, housing conditions, etc.), can help in the formulation of immediate and effective responses and participation in multiple global nursing actions. Unquestionably, there are and will be opportunities for representativeness of Lusophone nursing- who are focused on the global health agenda- that continues to be proposed and implemented by institutions representative of the global scientific and political communities.

## Discussion

One of the emerging aspects in this reflection refers to the need for Lusophone nursing to revisit the inseparable association among audacity-innovation-creativity-quality-talent-maturity-awareness. This can happen by adopting a new perspective towards what is an emancipatory educative action,<sup>12</sup> despite the coexistence of daring and fear that bothers and destabilizes, but

also boosts ones' teaching work.<sup>13</sup> This new perspective, when incorporated by teachers, scientists, and students, envisions an action plan for the internationalization efforts, both among themselves and with the other member countries of the NKN. This global theme corroborates the International Council of Nurses' strategic plan for 2019–2023, which highlighted innovation in nursing education.<sup>14</sup> The innovation discussed being discussed here can influence the profile of nursing professionals, making them creative, transformational, progressive, with a profile focused on problem solving and knowledge of evidence-based practices. Furthermore, the Council also acknowledged the existence of new priorities to encourage the creativity of teachers who are being invited to redesign strategies for the development of new mentoring initiatives.

Extensive and inclusive internationalization resonates with the World Health Organization's<sup>15</sup> call for nursing to act at its maximum capacity in terms of education and training, since the elevation of the quality of nursing education stands to also raise its professional status. Thus, the NKN interoperability, as well as the participation of Lusophone nursing, can be rooted in the shared expectations of its members, derived from the context of nursing teaching and research, strongly influenced by the socioeconomic status of each country. However, there is a common interest and the need for development and deepening of skills and abilities.

The establishment of partnerships in nursing through cohesive relationships that support the training and strengthening of health systems is justified by the growing lack of partnerships that can cooperate with teaching and research.<sup>16</sup> The dialogue on the internationalization of nursing education and research is supported by international collaboration:

[...] it is recognized for increasing the capacity to address complex problems [...] allowing identify comprehensive research issues that consider health disparities, the particularities of different health systems [...] cultural influence in all health areas, in addition to fostering the development of research skills.<sup>17:1</sup>

The work in an interdisciplinary nursing network also allows opportunities for stimulating, developing, and applying knowledge that enables responses to the health demands of society itself,<sup>17</sup> particularly if we consider the Brazilian population in its condition of reduced social and health indicators, resulting from the heterogeneous profile of society, but, above all, due to social inequalities.<sup>18</sup> Thus, the advantages for Lusophone nursing in this internationalization effort may include the achievement of cross-cutting objectives of networking, first, with the development of multi-centric research, in order to share information, knowledge and evidence, methodologies, and technological resources<sup>19</sup> and, second, by encouraging the possibility of continuous and long-

term collaboration among researchers.<sup>20</sup> New international perspectives offered in different clinical, educational, and research scenarios provide exposure to different ideas and strategies, as well as create opportunities for cross-learning meetings that offer alternative experiences and readings.<sup>21</sup>

In other words, Lusophone members can benefit from the permanent sharing of information, using unexplored paths that allow nurses from diverse countries to interact with one another, in expanding international networks that can create perspectives based on experiences and recommendations of those involved.<sup>22</sup> Multi-site groups can offer an opportunity to unify intellectual and material resources to identify and solve problems relevant to the international community, integrating the information obtained into real practice, thus collaborating to improve healthcare at the global level. It is worth mentioning that Lusophone nursing, in its international activities, can help foster the development of new knowledge.

The interconnection of academic and clinical contacts between different countries significantly increases the knowledge capacity of those involved through exposure to the ideas of others.<sup>10</sup> International collaboration enables meeting with potential partners, accessing employment opportunities, sharing common experiences of clinical and academic work, and a better understanding of national and international regulations governing clinical practices and procedures, as well as increased education, research, and scholarship opportunities.<sup>10,23-24</sup> In addition to being potentially rewarding, the work intended to be developed in the NKN is essential for the growth, development, and advancement of the nursing discipline and profession, whose internationalization initiatives can monetize the human and financial resources of Lusophone nursing.

#### Possible lines of action in the internationalization of Lusophone nursing

Among the institutions that responded to the environmental scan of resources for the NKN,<sup>5</sup> there were those of the Lusophone nursing that highly promising structural resources in its search for new alliances through integration, cooperation, and synergy agreements with other entities, universities, or organizations at the international level. Such institutions can offer the infrastructure, expertise, and logistical knowledge for the operationalization of the NKN, among other future Lusophone international members, in addition to the Brazil-Portugal dyad.

In Portugal, the European Nursing Virtual Centre for Learning Evidence-Based Practice

(ENCLEBP – <https://europeannursingebp.eu>) promotes and facilitates the acquisition and improvement of competencies for evidence-based practice through self-learning. Of interest are two of its objectives: facilitating collaboration between nursing professors working in similar areas throughout Europe; e, stimulating and supporting students and professionals in learning evidence-based practices or providing technical advice to public or private entities and any other purpose or activity of research, training, and dissemination of evidence-based nursing practice.

In Brazil, we cite the Ribeirão Preto School of Nursing of the University of São Paulo, which, as a Collaborating Center of the Pan American Health Organization (PAHO) for the Development of Nursing Research (<http://www.eerp.usp.br/collaborating-centre-home/>), can potentially bring the scientific community together for the scientific production of knowledge. Furthermore, we highlight the existence of research groups and studies created by graduate programs in nursing with affiliation to the National Council for Scientific and Technological Development (CNPq), with the significant presence of nursing researchers, such as the Qualitative Studies Group in Health and Nursing (NEQUASE – <http://dgp.cnpq.br/dgp/espelhogrupo/31831>), establishing and maintaining international collaborations, many of which are not yet made official so that the advancement of teaching-research in partner countries becomes an immediate possibility.

In the sense of internationalization and its official scope, Lusophone nursing institutions can explore the various diplomatic representations in their countries about the existence of programs with foreign funding that enable the international mobility of teachers and students. Identifying nursing undergraduate students with promising talent and exposing them to especially international experiences of research training, represents an effective strategy to invest in the future generation of nursing scientists.<sup>9</sup>

As a reflexive study observing the methodological rigor of the scientific method adopted<sup>7</sup> exclusively based on the authors' thoughts and premises, this work is without methodological limitations. Although the premises and thoughts discussed here centered on information obtained in 2021, realities, truths, and contexts evolve, and therefore, authors are not responsible for any future changes in perspectives about future actions of the NKN with the participation of Lusophone nursing.

## Final Considerations

Despite the internal diversity of its future members, given their accumulated and proven

experience in teaching about nursing research and in researching and sharing knowledge in scientific communities, internal collaboration can help us overcome language barriers and mitigate the limitations imposed by financial issues. Distinct and very peculiar interests, both in relation to geographical location and institutional priorities, reinforce that peer dialogue is clearly attractive. From this dialogue, teacher and student mobility seems possible to us, as well as the discussion to produce manuscripts and for the design of new research projects. There are, therefore, possibilities to exchange skills, discover new alternatives to solving the problems of teaching and practicing research, and produce so many other forms of knowledge that are rooted in local culture and socioeconomic reality. Therefore, we hope that each Lusophone member (as an individual or groups) of the NKN can add, in the future, its own local, national, and international collaborators so that, strategically, we can consolidate ties, define communication channels, and identify, educate, and support emerging leaders so that the NKN becomes intrinsic to the global nursing community in the coming decades.

We identified that leadership in nursing research is a crucial point for investments in efforts to understand the concept of innovation in nursing research teaching. The NKN can also facilitate internationalization actions between Lusophone partners and collaborators capable of dividing their technological resources and unique intellectual capital to overcome the growing barriers to financing scientific activities in their various phases. It becomes evident that changes in the NKN's structure, content, and function, with the focus of Lusophone jurisdictions, should act based on public policies to strengthen national universities with goals of internationalization of science, enabling the application of global knowledge to local needs.

It is expected that the consolidated intellectual partnership established by Lusophone nursing can be inspired by the ideas of this reflection to redesign its *modus operandi*. Moreover, it is expected that such partnership between middle- and high-income countries, as well as access to differentiated financial resources for education, innovation, and research in nursing will impact the feasibility of partners in future NKN initiatives.

This reflexive study does not venture to prescribe or suggest expectations of results, in addition to the possibilities of other considerations that were mentioned above. Questions about expected results may currently be inappropriate, such as the participation of other Lusophone countries (not only Brazil and Portugal) in the NKN, boosting the growth of nursing in such countries. Another difficulty refers to the analysis of any predictions about the results of

strengthening such partnerships that requires more information and extrapolates from the proposal of this article.

## References

1. Prugh K, Prusak L. Designing effective knowledge networks. MIT Sloan Manag Rev [Internet] 2013 [cited 2020 mar 20];55(1):79-88. Retrieved from: <https://sloanreview.mit.edu/article/designing-effective-knowledge-networks/>
2. Sanz-Blas S, Buzova D, Pérez-Ruiz P. Building relational worth in an online social community through virtual structural embeddedness and relational embeddedness. Technol Forecast Soc Change. 2021;162:120350. doi: <https://doi.org/10.1016/j.techfore.2020.120350>
3. Carper B. Fundamental patterns of knowing in nursing. ANS. 1978;1(1):13-23. doi: <https://doi.org/10.1097/00012272-197810000-00004>
4. Thorne S. Rethinking Carper's personal knowing for 21st century nursing. Nurs Philos. 2020; 21:e12307. doi: <https://doi.org/10.1111/nup.12307>
5. Zanchetta MS, Medeiros M, Munari DB, Gouveia MTO, Albarracin DGE, Aguilera-Serrano C, Santos WS, Metersky K, Fredericks S, CostaE, He SZ. Environmental scan of resources for the creation of a Nursing Knowledge Network - Summary Report. Toronto Metropolitan University. 63 p. 2022. [cited 2022 Aug 4]. doi: <https://doi.org/10.32920/19908994.v1>
6. Castro N, Rovere RLL, Lima AP, Moszkowicz M. Redes de inovação: uma abordagem teórica. Rio de Janeiro, Gesel/UFRJ. 2018. [cited 2022 abr 4]. Available from: [https://agora.ie.ufrj.br/pdf/Nivalde de Castro/7.TDSE84 2018 Redes de inovacao.pdf](https://agora.ie.ufrj.br/pdf/Nivalde%20de%20Castro/7.TDSE84%2018%20Redes%20de%20inovacao.pdf)
7. Fook J. Developing critical reflection as a research method. In: Higgs J, Titchen A, Horsfall D, Bridges D, editors. Creative spaces for qualitative researching. Springer. 2011. p. 55-64. doi: [http://dx.doi.org/10.1007/978-94-6091-761-5\\_6](http://dx.doi.org/10.1007/978-94-6091-761-5_6)
8. Zanchetta MS, Medeiros M, de Carvalho JCM, Baixinho CRSL, Primo CC, Chaves MCRF, Gouveia MTO, Girardon-Perlini NMO, Rocha CMF, CostaE, SantosWS, Pessoa VLMP. Analysis of the particularities of Lusophone participation in a Nursing Knowledge Network. Esc Anna Nery. 2023;27. doi: <https://doi.org/10.1590/2177-9465-EAN-2022-0194en>
9. Zanchetta MS, Santos WS, Felipe ICV, Lucchese S. Bold background of nurse-scientist. OBJN. 2018;16(3):238-40. doi: <https://doi.org/10.17665/1676-4285.20176144>
10. Harrap N, Doussineau M. Collaboration and networks: EU13 participation in international science. Eur Union [Internet] 2017 [cited 2022 mar 15];1-5. Available from: <https://EconPapers.repec.org/RePEc:ipt:iptwpa:jrc106208>
11. Rodríguez-Martín A, Novalbos Ruiz JP, Jiménez-Rodríguez R, Jiménez-Rodríguez A. Nuevas tecnologías: posibilidades de apoyo a la investigación en red. Nutr Hosp. 2012;27(Suppl 2):49-53. doi: <https://dx.doi.org/10.3305/nh.2012.27.sup2.6273>
12. Freire P. Education for critical consciousness. New York: Continuum;1973.
13. Shor I, Freire P. Medo e Ousadia-O cotidiano do professor. Rio de Janeiro: Paz e Terra; 1986.
14. International Council on Nurses. Strategic plan [Infographics] [cited 2022 abr 4]. Available from: <https://www.icn.ch/sites/default/files/inline-files/Strategic%20plan.pdf>
15. World Health Organization. State of the world's nursing 2020: investing in education, jobs, and

- leadership. [cited 2022 abr 4]. Available <https://www.who.int/publications/i/item/9789240003279>
16. Richter S, Cummings G, Bernardes A. Sustainable partnerships for global nursing education: a Canadian and Brazilian collaboration. *Rev Latino-Am Enfermagem*. 2020;28:e3258. doi: <http://dx.doi.org/1518-8345.0000-3258>
  17. Gallani MCBJ. International collaboration in the Nursing agenda in the coming decades. *Rev Latino-Am Enfermagem*. 2016;24:e2739. doi: <http://dx.doi.org/10.1590/1518-8345.0000.2739>
  18. Instituto Brasileiro de Geografia e Estatística (BR). Síntese de indicadores sociais : uma análise das condições de vida da população brasileira: 2021 / IBGE, Coordenação de População e Indicadores Sociais. 203p. [cited 2022 abr 4]. Available from: <https://biblioteca.ibge.gov.br/index.php/biblioteca-catalogo?view=detalhes&id=2101892>
  19. Rocha CMF, Cassiani SHB. Nursing networks: strategies to strengthen research and extension studies. *Rev Gaucha Enferm*. 2015;36(2):8-13. doi: <10.1590/1983-1447.2015.02.56420>
  20. Opinion Leader. The role of international collaboration and mobility in research. 2017 [acesso em 2022 abr 4]. Available from: <https://acmedsci.ac.uk/file-download/96518966>
  21. Kraft M, Kastel A, Eriksson H, Hedman AR. Global nursing-a literature review in the field of education and practice. *Nurs Open*. 2017;4(3):122-33. doi: <https://doi.org/10.1002/nop2.79>
  22. Rodrigues ML, Nimrichter L, Cordero RJB. The benefits of scientific mobility and international collaboration. *FEMS Microbiol Lett*. 2016;363(21):fnw247. doi: <https://doi.org/10.1093/femsle/fnw247>
  23. Lockwood CS. Applying theory informed global trends in a collaborative model for organizational evidence-based healthcare. *J Korean Acad Nurs Adm*. 2017;23(2):111-7. doi: <https://doi.org/10.1111/jkana.2017.23.2.111>
  24. Duke VJA, Anstey A, Carter S, Gosse N, Hutchens KM, Marsh JA. Social media in nurse education: utilization and E-professionalism. *Nurse Educ Today*. 2017;57:8-13. doi: <https://doi.org/10.1016/j.nedt.2017.06.009>

## Authors' contributions

### 1 – Margareth Santos Zanchetta

Corresponding author

Nurse, PhD - mzanchet@torontomu.ca

Conception and writing of the manuscript, review, and approval of the final version.

### 2 – Márcia Teles de Oliveira Gouveia

Nurse, PhD - marciateles@ufpi.edu.br

Conception and writing of the manuscript, review, and approval of the final version.

### 3 – Cândida Caniçali Primo

Nurse, PhD - candida.primo@ufes.br

Writing of the manuscript, review, and approval of the final version.

### 4 – Cristina Rosa Soares Lavareda Baixinho

Nurse, PhD - crbaixinho@esel.pt

Writing of the manuscript, review, and approval of the final version.

**5 – José Carlos Marques de Carvalho**

Nurse, PhD - zecarlos@esenf.pt

Writing of the manuscript, review, and approval of the final version.

**6 – Manuel Carlos Rodrigues Fernandes Chaves**

Nurse, PhD - mchaves@esenfc.pt

Writing of the manuscript, review, and approval of the final version.

**7 – Marcelo Medeiros**

Nurse, PhD - marcelo@ufg.br

Writing of the manuscript, review, and approval of the final version.

**8 - Cristianne Maria Famer Rocha**

Educator, PhD - cristianne.rocha@ufrgs.br

Writing of the manuscript, review, and approval of the final version.

**Editor-in-Chief:** Cristiane Cardoso de Paula

**Scientific Editor:** Tânia Solange Bosi de Souza Magnago

**How to cite this article**

Zanchetta MS, Gouveia MTO, Primo CC, Baixinho CRSL, Carvalho JCM, Chaves MCRF, Medeiros M, Rocha CMF. Internationalization to increase the production of knowledge in nursing: a reflection study. Rev. Enferm. UFSM. 2023 [Access at: Year Month Day]; vol.13, e16: 1-16. DOI: <https://doi.org/10.5902/2179769272237>