

Environment of the professional Nursing practice in Latin American countries: a scoping review

Ambiente da prática profissional de enfermagem em países latino-americanos: scoping review
Entorno de práctica profesional de enfermería en países de América Latina: scoping review

Caren de Oliveira Riboldi¹

ORCID: 0000-0002-7685-9183

Renata Cristina Gasparino²

ORCID: 0000-0001-8729-4707

Angélica Kreling³

ORCID: 0000-0002-0263-8281

Nery José de Oliveira Júnior¹

ORCID: 0000-0001-5222-6958

Amanda da Silveira Barbosa¹

ORCID: 000-0002-0361-1320

Ana Maria Müller de Magalhães¹

ORCID: 0000-0003-0691-7306

1 Federal University of Rio Grande do Sul,
RS, Brazil

2 State University of Campinas, SP, Brazil

3 Clinical Hospital of Porto Alegre, RS,
Brazil

Editor: : Paula Vanessa Peclat Flores

ORCID: 0000-0002-9726-5229

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ABSTRACT

Objective: To identify and map the Latin American literary production about the nursing work environment in the hospital setting based on the Nursing Working Index-Revised and on the Practice Environment Scale. **Method:** A scoping review in five databases and other sources on the topic. The sample included 20 articles, nine Theses and five Dissertations published in the last decade. **Result:** In the sample, Brazil presented the largest number of publications in journals. The environments were favorable with the application of the Nursing Working Index-Revised and unfavorable with the Practice Environment Scale. Among the domains with the worst scores, control over the environment and adequacy of the team and resources stand out. **Conclusion:** The literary production has gained prominence only in the last decade and points to the association between favorable practice environments and better care results.

DESCRIPTORS: Environment of Health Institutions; Nursing; Hospitals; Review; Developing Countries; Assessment of Results of Patient Care.

RESUMO

Objetivo: Identificar e mapear a produção literária latino-americana acerca do ambiente da prática profissional de enfermagem no cenário hospitalar com base nos instrumentos *Nursing Working Index-Revised* e *Practice Environment Scale*. **Método:** *Scoping review* em cinco bases de dados e outras fontes sobre o tema. A amostra contabilizou 20 artigos, nove Teses e cinco Dissertações publicados na última década. **Resultado:** O Brasil apresentou o maior número de publicações em periódicos, na amostra. Os ambientes mostraram-se favoráveis com a aplicação do *Nursing Working Index-Revised* e desfavoráveis com a *Practice Environment Scale*. Entre os domínios destacam-se, com os piores escores, o controle do ambiente e adequação da equipe e de recursos. **Conclusão:** A produção literária adquire destaque apenas na última década e aponta para a associação entre ambientes da prática favoráveis e melhores resultados assistenciais.

DESCRIPTORES: Ambiente de Instituições de Saúde; Enfermagem; Hospitais; Revisão; Países em Desenvolvimento. Avaliação de Resultados da Assistência ao Paciente.

RESUMEN

Objetivo: Identificar y mapear la producción literaria latinoamericana sobre el entorno de la práctica profesional de la enfermería en el ámbito hospitalario a partir de los instrumentos *Nursing Working Index-Revised* y *Practice Environment Scale*. **Método:** *Scoping review* en cinco bases de datos y otras fuentes sobre el tema. La muestra contó con 20 artículos, nueve Tesis Doctorales y cinco Tesis de Maestría publicadas en la última década. **Resultado:** Brasil tuvo el mayor número de publicaciones en revistas de la muestra. Los entornos fueron favorables con la aplicación del *Nursing Working Index-Revised* y desfavorables con la *Practice Environment Scale*. Entre los dominios, con los peores puntajes, se destacan el control del entorno y la adecuación del equipo y los recursos. **Conclusión:** La producción literaria ha ganado notoriedad solo en la última década y apunta a la asociación entre entornos de práctica favorables y mejores resultados de atención.

DESCRIPTORES: Entorno de las Instituciones de Salud; Enfermería; Hospitales; Revisión; Países en Desarrollo. Evaluación de los Resultados de la Atención al Paciente.

INTRODUCTION

In the last decades, issues such as shortage of Nursing professionals, precariousness of physical and technological structures, lack of material resources and budgetary limitations have become relevant for researchers, managers and representative entities of nurses worldwide. Research studies on the possible repercussions of these aspects on quality of care, patient safety and job satisfaction are being developed in order to seek subsidies for the development of strategies in the context of the scenario described.

In this context, studies on the environment of health institutions emerge as one of the tools to understand the elements that interfere in the development of care activities and the exercise of the profession itself. The concept of nurse professional practice environment stands out, which refers to the perception of characteristics that can favorably or unfavorably influence the achievement of results for patients, professionals and health institutions. These characteristics encompass autonomy, quality clinical care, leaders who participate in organizational decisions and changes, career development and progression, and collaborative multiprofessional relationships⁽¹⁾.

Since the publication of the *To Err is Human* report, the concern with patient safety points to Nursing as one of the main elements of the workforce, with a central role in contributing to the achievement of better care results in the health systems⁽²⁾. The use of instruments to assess the perception of nurses about the characteristics of the environments in which

they work indicates that they are more satisfied and engaged with quality of care in organizations that have an adequate structure of human resources⁽³⁾.

The first studies on the environment of the Nursing practice appeared in the United States, between the 1970s and 1980s, in the midst of a crisis in the job market, expressed by the high turnover and shortage of professionals in hospitals. However, even in the face of the unfavorable scenario, some locations maintained and attracted new professionals, them being called *magnet hospitals*. On this occasion, a study conducted by the American Academy of Nursing (AAN) listed as common factors among these institutions the organizational structure, decentralized and process-based decision-making, responsibility for providing quality assistance, influence on management, professional development and adequate human resources^(1,4).

From the study carried out by the AAN, the Nursing Work Index (NWI) instrument was developed, based on the characteristics of magnet hospitals, composed of 65 items that contemplated issues related to job satisfaction and to the quality of care offered by Nursing⁽¹⁾.

In 2000, the NWI structure was redesigned, resulting in the Nursing Working Index - Revised (NWI-R). This new version considered the presence of some factors in the nurse's work to assess the practice environment and presented 57 items, of which 56 were derived from the original instrument⁽⁵⁾.

Subsequently, in 2002, there was a new review of the NWI, culminating in the Practice Environment Scale (PES-NWI), which had 31 items and, of these, 29 common to NWI-R⁽⁶⁾. PES-NWI was identified as a sensitive scale to detect differences between different hospital practice environments, allowing managers to compare the scores of their hospitals with reference values and their impact on the indicators related to the team and patients⁽¹⁾.

Since then, studies dealing with the theme have been conducted, mainly in North American institutions, although in the last decade there has been evidence of expansion to more than 28 countries, such as Germany, China, Switzerland, France, Australia, Italy and Canada, among others⁽⁷⁾.

With the growing discernment that the Nursing workforce has an impact on patient safety, it is necessary to examine and synthesize knowledge about the relationship between the characteristics of the Nursing practice environment and the results for patients, such as the safety climate, mortality rates, incidence of adverse events (medication errors, falls, hospital infections, among others) and satisfaction with the care received^(8,9).

Despite this, little is known about the studies carried out in developing countries, especially in the Latin American context, as pointed out by recently published review studies^(7,8). Given the above, the research question that guided the present research was the following: Which is the perception about the environment of the professional Nursing practice in hospitals in the Latin American context? To this end, the objective of this study was to identify and map

the Latin American literary production about the nurse work environment in the hospital setting based on the NWI-R and PES-NWI instruments.

METHOD

This is a scoping review based on the methodological criteria of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (*PRISMA-ScR*)⁽¹⁰⁾ and on recommendations by members of the Joanna Briggs Institute (JBI), who provide guidelines to define the research question and objective, analyze the existing knowledge in the area, establish inclusion criteria, apply search strategy, and extract and present the results. The research question was defined based on the PCC strategy, where P refers to the population (Nursing professionals), C is equivalent to concept (nurse work environment) and C to context (Latin American hospitals)⁽¹¹⁾.

In a free translation, the scoping review allows synthesizing and disseminating the findings of research studies produced and available on a given topic, contributing to mapping the evidence and the main concepts that support the investigated knowledge area. In addition to that, it makes it possible to identify knowledge gaps and allows guiding future research studies that can support the clinical practice⁽¹¹⁾.

Between October 3rd and December 20th, 2018, one of the members of the research team searched for articles by consulting the Journals Portal of the Coordination for the Improvement of Higher Education (CAPES) and the following

databases and portals were listed: *Medical Literature Analysis and Retrieval System Online* (MEDLINE/PubMed), *Cumulative Index to Nursing and Allied Health Literature* (CINAHL), *Latin American and Caribbean Literature in Health Sciences* (*Literatura Latino-Americana e do Caribe em Ciências da Saúde*, LILACS), *Web of Science core collection* (WOS/ISI), SCOPUS and the *Scientific Eletronic Library Online* (SciELO) libraries.

The terms used in the search strategy are of the uncontrolled type and were adopted based on a recent literature review⁽⁷⁾. They covered the following combinations: "nurse work environment OR practice environment OR PES-NWI", "nursing" AND "practice environment" and "nurse work environment" AND "nursing work index" OR "NWI" OR "nursing work index-revised" OR "NWI-R", according to the example shown below in Chart 1.

Chart 1 - Example of a complete electronic search strategy in the MEDLINE/Pubmed database. Porto Alegre, RS, Brazil, 2021.

Database	Search strategy	Limiters
MEDLINE/PubMed	Search: ((((((("nurse work environment"[Title/Abstract]) OR ("practice environment"[Title/Abstract])) OR ("PES=NWI"[Title/Abstract])) AND ("nursing"[Title/Abstract])) OR ("nursing work index"[Title/Abstract])) OR ("NWI"[Title/Abstract])) OR ("nursing work index revised"[Title/Abstract]))	Filters applied: Free full text, from 2008/1/1 - 2018/10/20. English, Portuguese, Spanish

Source: Prepared by the authors, 2021.

Additional searches included the reference lists of the articles included in the sample, the websites of representative Nursing organizations and the CAPES Dissertations and Theses database, in order to identify other data sources on the topic.

The inclusion criteria adopted for the selection of articles included free-access full texts, in English, Portuguese and/or Spanish, published in the last 10 years and using the NWI-R and PES-NWI instruments. The time frame is justified by the fact that these two instruments had their translation and validation into the Portuguese language performed in 2008 and 2015, respectively.

The same inclusion criteria and time interval for the search for Theses and Dissertations were adopted. The exclusion criteria included articles with limited access, from countries outside Latin America and carried out with a focus on primary care.

The process of searching and selecting the material to compose the sample took place by reading the titles and abstracts, distributed by independent pairs among the authors, using the EndNote software to store and organize the selected references. The script used to extract, organize and analyze the information was developed by the study authors, with the following variables: identification of the

database, year of publication, title, authors, country where the study was conducted, language, journal, type of study, objectives, sample, results with a focus on the classification of the practice environment and domains of the scales, limitations and conclusions.

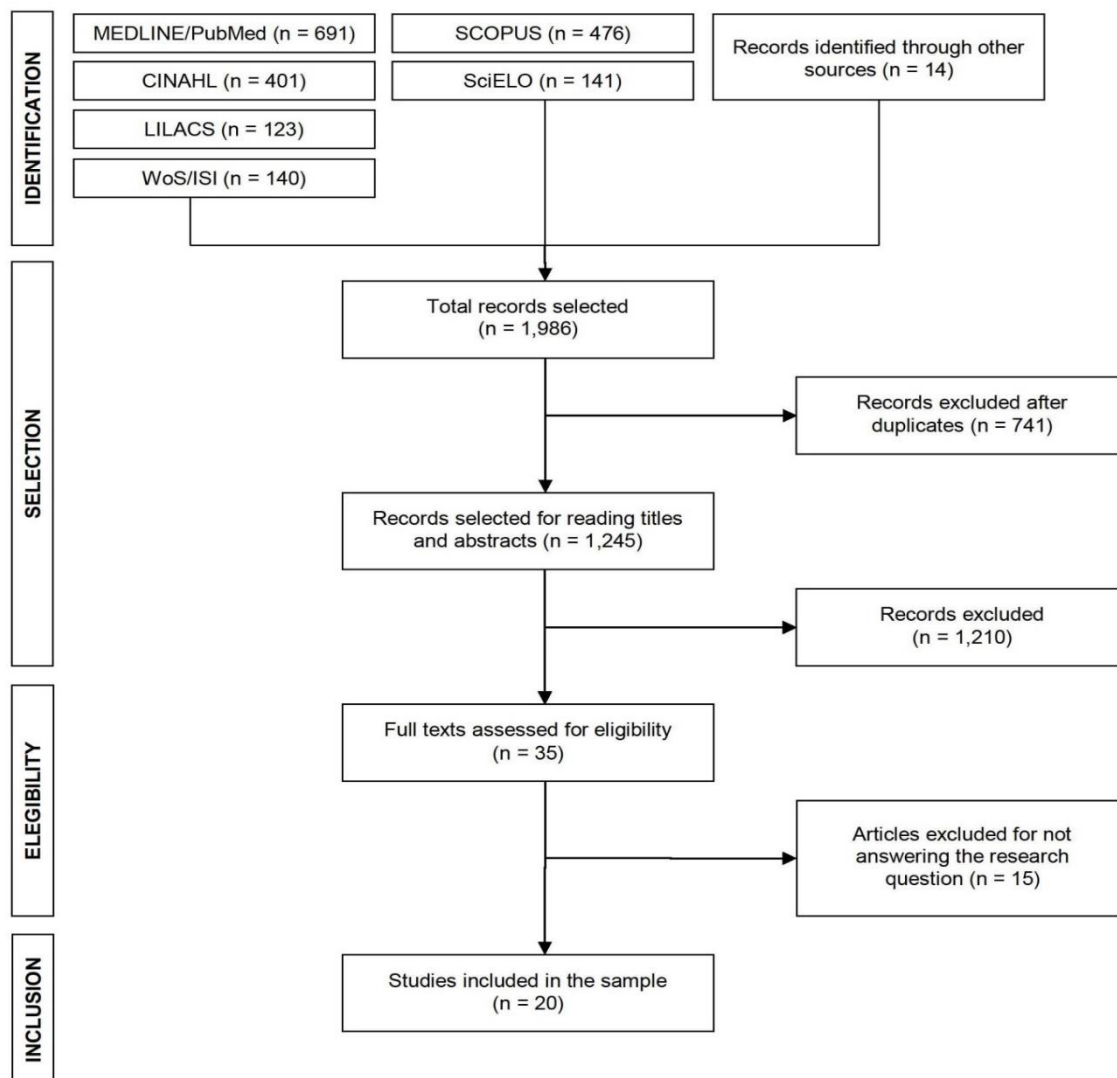
The doubts and disagreements were discussed and evaluated at meetings of the research team, considering the eligibility criteria and adherence to the guiding question of the

study. For a better understanding of the data, they were arranged in figures and charts.

RESULTS

From the searches carried out in the sources consulted and according to the inclusion and exclusion criteria, a total of 20 published articles were obtained (Figure 1), in addition to nine Doctoral Theses and five Master's Dissertations from the CAPES Database of Dissertations and Theses.

Figure 1 - Flowchart of the review on articles related to the environment of the Nursing practice in Latin America. Porto Alegre, RS, Brazil, 2021.



Source: Prepared by the authors, 2021.

The synthesis of the 20 selected articles is described in Table 2 and presents the information related to the year of publication,

title, authors, country where the study was conducted, language, journal, objectives, sample, limitations and conclusions.

Chart 2 - Summary of the selected articles regarding the information related to the year of publication, title, authors, country where the study was conducted, language, journal, objectives, sample, limitations and conclusions. Porto Alegre, RS, Brazil, 2021.

Nº	Year/Title/Authors Country/Language Journal	Objectives Sample	Limitations	Conclusions
1	2009: Translation and cross-cultural adaptation of the "Nursing Work Index - Revised" into Brazilian Portuguese - Gasparino RC, Guirardello EB. Brazil; English; Acta Paulista de Enfermagem	To translate and adapt NWI-R for the Brazilian culture; 38 nurses and 8 nursing professors.	None.	The study presents subsidies to qualify patient care, provide greater job satisfaction and lower rates of absenteeism, turnover and emotional exhaustion.
2	2011: Validation of the Brazilian version of the Nursing Work Index-Revised (B-NWI-R) - Gasparino RC, Guirardello EB, Aiken LH. Brazil; English; Journal of Clinical Nursing	To assess the reliability and validity of the Brazilian version of NWI-R; 278 nurses.	To apply Brazilian version of NWI-R in other health institutions, with other groups of nurses.	The instrument applied is valid for assessing characteristics of the environment in the Nursing practice.
3	2012: Turnover intention among hospital-based registered nurses in Eastern Caribbean - Lansiquot BA, Tullai-McGuinness S, Madigan E. Caribe; English; Journal of Nursing Scholarship	To describe the characteristics of nurses in the hospital context, determining the relationship between the characteristics of the practice environment and turnover; 301 nurses.	It is not possible to generalize the results and compare them with the findings of other research studies.	It is necessary to implement improvements in the practice environment, with regard to the adequacy of resources and reduction of turnover.
4	2014: Validation of the Nursing Work Index-Revised among nursing aides and technicians - Marcelino CF, Alves DFS, Gasparino RC, Guirardello EB. Brazil; Portuguese; Acta Paulista de Enfermagem	To assess the reliability and validity of the Brazilian version of NWI-R among nursing assistants and technicians; 150 nursing assistants and technicians.	None.	The better the practice environment, the lower the burnout levels and the intention to leave the job, the greater the job satisfaction and the perception of quality of care.
5	2014: Knowledge, attitude and use of Evidence-Based Practice among nurses active on the Internet - Pérez-Campos MA, Sánchez-García I,	To determine the degree of competence of the evidence-based practice (EBP) of a group of Spanish and Latin American nurses;	Low adherence of respondents and type of study that prevents the assessment of cause-and-effect	The competence of the EBP is most evident in a favorable practice environment.

	Pancorbo-Hidalgo PL. Spain and Latin American countries; English; Investigación y Educación en Enfermería	314 nurses.	relationships.	
6	2014: Validation of a Spanish version of the Practice Environment scale of the Nursing Work Index in the Colombian context - Alzate LCC, Bayer GLA, Squires A. Colombia; English; Hispanic Health Care International	To determine the relevance of the Spanish version of PES-NWI for the Nursing practice in Colombia and validate the instrument; 144 nurses.	Conducting additional tests to validate the psychometric measures and translation of the instrument.	The scale applied reached acceptable levels of content validation.
7	2015: Governance of professional nursing practice in a hospital setting: a mixed methods study - Santos JLG, Erdman AL. Brazil; Portuguese; Revista Latino-Americana de Enfermagem	To develop an interpretative model on the governance of the nurses' professional; 106 nurses (quantitative phase) and 63 participants in the qualitative phase (32 nurse assistants, 13 nurse managers and 18 health team professionals).	Small quantitative sample and data collection performed in an institution do not provide representative results for the phenomenon under study.	The governance of the nurse's professional practice is based on the management of Nursing care and services in the hospital environment.
8	2015: Professional practice environment and burnout among nurses - Gasparino RC, Guirardello EB. Brazil; Portuguese; Revista da Rede de Enfermagem do Nordeste	To evaluate and compare the environment of the nurse's professional practice and its relationship with burnout syndrome between three educational institutions (A, B, C); 278 nurses.	It is necessary to develop further studies comparing institutions of the same size in order to reinforce the findings.	The nurses from Hospital C recognize the presence of characteristics that are favorable to the professional practice and present lower burnout levels.
9	2016: Nursing work environment, patient safety and quality of care in pediatric hospital - Alves DFS, Guirardello EB. Brazil; Portuguese; Revista Gaúcha de Enfermagem	To describe the characteristics of the Nursing practice environment, safety attitudes, quality of care and indicators of a pediatric hospital; 136 Nursing professionals.	Related to the type of study, which prevents the assessment of cause-effect relationships.	The care environment in the institution was considered favorable to the professional Nursing practice.
10	2016: Comparison between the accredited and non-accredited public hospital working environments - Oliveira PB, Spiri WC, Dell'Acqua MCQ, Mondini CCSD. Brazil; Portuguese; Acta Paulista de	To identify and compare the nurses' practice environment from public hospitals A (not accredited) and B (accredited) using the Brazilian version of	Little participation by the nurses from both hospitals and impossibility of comparing the findings with other similar institutions.	There was no statistically significant difference in relation to the hospital practice environment.

	Enfermagem	NWI-R; 106 nurses.		
11	2017: Nursing practice environment and work satisfaction in critical units - Oliveira EM, Barbosa RL, Andolhe R, Eiras FRC, Padilha KG. Brazil; Portuguese; Revista Brasileira de Enfermagem	To analyze the association between the practice environment and job satisfaction in an intensive care unit; 287 Nursing professionals.	The study was carried out only in one institution and used non-probabilistic sampling, which does not allow for the generalization of the findings.	The favorable environment for the Nursing practice, the disposition, and the working time in the intensive care unit are aspects that promote professional satisfaction.
12	2017: Validation of the Practice Environment Scale to the Brazilian culture - Gasparino RC, Guirardello EB. Brazil; English; Journal of Nursing Management	To validate the Brazilian version of PES; 209 nurses	Only a sample of nurses from a state in Brazil was considered. Further research studies must be carried out to assess the psychometric properties of the instrument, covering nursing technicians and assistants.	The results suggest that the Brazilian version of PES has adequate psychometric properties.
13	2017: Nursing practice environment, satisfaction and safety climate: the nurses' perception - Dorigan GH, Guirardello EB. Brazil; Portuguese; Acta Paulista de Enfermagem	To assess the nurses' perception of the practice environment, job satisfaction and safety climate, checking correlations between these variables and the adequacy of material and human resources, and intention to remain in the institution and in the profession; 465 nurses.	The transversal cut restricts the reach of the results. It is recommended to carry out research studies with evidence on which factors can predict the nurses' intention to remain at work and in the profession, since this aspect may influence professional satisfaction and the assessment of the safety climate.	The practice environment was rated by nurses as favorable, except for control over the environment. The safety climate was perceived as unfavorable in different institutions and the nurses reported professional dissatisfaction.
14	2017: Professional nursing practice in critical units: assessment of work environment characteristics - Maurício LFS, Okuno MFP, Campanharo CRV, Lopes MCBT, Belasco AGS, Batista REA. Brazil; Portuguese; Revista Latino-Americana de Enfermagem	To assess autonomy, control over the environment, organizational support and the relationships between physicians and nurses in critical units; 162 nurses	Comparisons are not feasible, as the study was conducted in a specific setting.	Favorable results in the subscales autonomy, physician-nurse relationship and organizational support. However, control over the environment and organizational support were unfavorable and require interventions to improve the critical units.
15	2017: Comparison between the working environment of nurse managers and nursing assistants in the hospital context - Santos	To compare the practice environment of nurse managers and assistants; 106 nurses in the quantitative	None.	When comparing the practice environment between the groups, no statistical significance was

	JLG, Erdmann AL, Peiter CC, Alves MP, Lima SBS, Backes VMS. Brazil; Portuguese; Rev da Escola de Enfermagem da Universidade de São Paulo	stage (94 assistants and 12 managers) and 26 nurses in the qualitative stage (18 assistants and 12 managers).		identified.
16	2017: Impact of critical care environment on burnout, perceived quality of care and safety attitude of the nursing team - Guirardello EB. Brazil; Portuguese; Revista Latino-Americana de Enfermagem	To evaluate the perception of the Nursing team about the practice environment in critical care units and its relationship with a safety attitude, perception of quality of care and burnout level; 114 Nursing professionals.	The convenience sample does not allow data generalization. The specificity of the research scenario may not portray the reality of intensive care units.	The findings showed that favorable environments for the professional practice can result in lower levels of emotional exhaustion, better quality of care and a positive perception of safety attitudes.
17	2017: Nursing practice environment, job outcomes and safety climate: a structural equation modelling analysis - Alves DFS, Silva D, Guirardello EB. Brazil; English; Journal of Nursing Management	To evaluate the correlation between the Nursing practice environment and levels of emotional exhaustion, safety climate, job satisfaction and intention to leave the profession, in addition to testing a theoretical model of the relationship between the variables; 267 Nursing professionals.	The variables were tested considering a specific theoretical model. Further studies are needed in different regions of the country.	Initiatives to reduce or relieve burnout, involvement in decision-making related to patient care and professional recognition contribute positively to the development of a favorable environment, with an impact on satisfaction and the safety climate.
18	2018: Nursing practice environment in intensive care units - Azevedo Filho FM, Rodrigues MCS, Cimiotti JP. Brazil; Portuguese; Acta Paulista de Enfermagem	To analyze the practice environment in intensive care units; 209 Nursing professionals.	The sample was limited to four intensive care units and the data were collected during the workday, which can influence the pattern of the participants' answers.	Health administrators and managers must consider investments in the Nursing practice environment in order to ensure adequate conditions for care, with quality and safety.
19	2018: Nurse work environment and job-related outcomes in Brazilian hospitals - Dutra HS, Cimiotti JP, Guirardello EB. Brazil; Portuguese; Applied Nursing Research	To examine the practice environment, emotional exhaustion, job dissatisfaction and intention to leave the job among Nursing professionals; 450 Nursing professionals.	Impossibility of generalizing the findings; low adherence by the participants; and type of study, which does not allow establishing causality.	Characteristics of the practice environment and high emotional exhaustion were associated with job dissatisfaction. Inadequate staff sizing, emotional exhaustion and job dissatisfaction were associated with the intention to leave the job.
20	2018: Nursing leadership and its relationship with the hospital work environment -	To analyze the practice environment in care units of a hospital,	The practice environment was measured	For the development of leaders, it is fundamental that the

	Balsanelli AP, David DR, Ferrari TG. Brazil; Portuguese; Acta Paulista de Enfermagem	verify the ideal leadership style, correlate the variables of the practice environment and real leadership; 62 pairs of nurses and nursing technicians or assistants.	considering only the domains of the Brazilian version of NWI-R. Further investigations are recommended to reinforce the theme.	manager knows the variables that are directly related to leadership.
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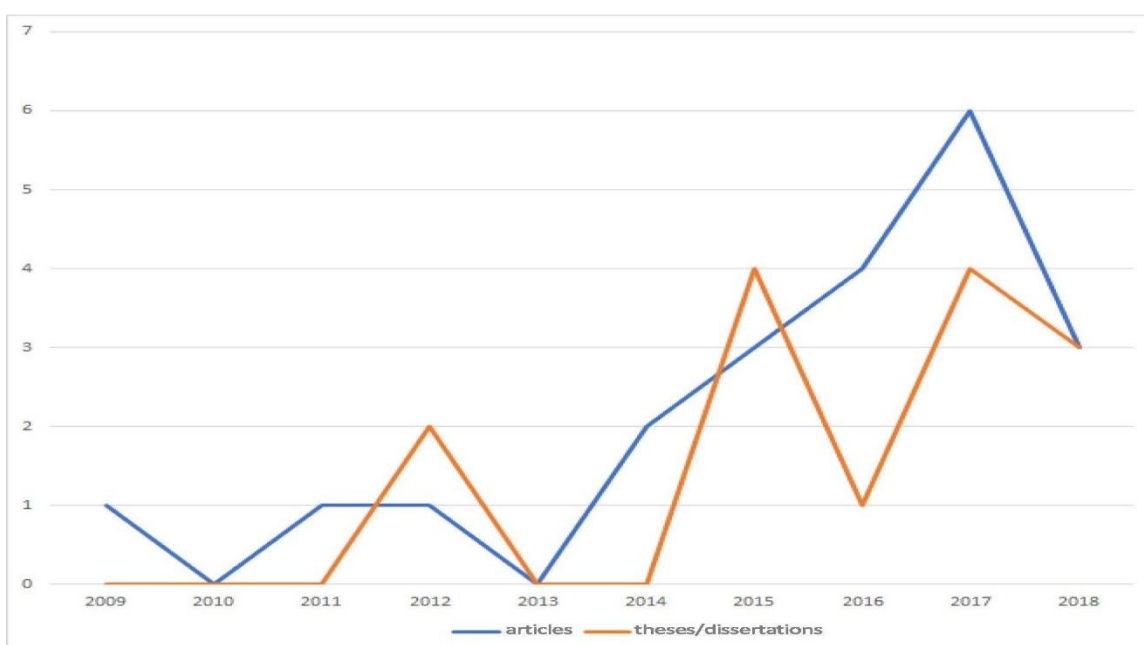
Source: Prepared by the authors, 2021.

Brazil stands out as the country with the largest number of publications on the subject: 17 (85%) in scientific journals, of which nine (45%) originated from the research studies produced together with the Graduate Programs⁽¹²⁻²⁰⁾. Subsequently, unitary publications from the Caribbean, Colombia and Latin American countries were identified, together with Spain.

In the sample, it was also evidenced that 13 (65%) articles were published in Portuguese and seven (35%), in English.

There were no manuscripts in the Spanish language. The authors of the publications were mostly from the Nursing area and the predominant methodological design was cross-sectional, found in 11 (55%) publications, followed by studies of translation, cross-cultural adaptation and validation with 3 (15%). Of the rest, 6 (30%) included correlation studies, mixed methods and other approaches. Figure 2 shows the distribution of the articles, Theses and Dissertations selected according to the period delimited for research.

Figure 2 - Articles, Theses and Dissertations of the sample produced annually between 2009 and 2018. Porto Alegre, RS, Brazil, 2021.



Source: Prepared by the authors, 2021.

In the panorama of Brazilian studies, it was identified that nine were carried out with the population of nurses^(12,13,15,17,18,21-24), one contemplated only nursing technicians and/or assistants⁽²⁵⁾ and seven, the entire Nursing team^(14,16,19,20,26-28). As for the publications from the other Latin American countries, they predominantly covered nurses⁽²⁹⁻³¹⁾.

In 15 articles of the sample, the use of the NWI-R scale was identified, with three^(12,21,25)

not presenting values for assessing the environment because they were aimed at translating, culturally adapting and validating the instrument. The description of the results of the scores obtained regarding the perception of the practice environment is included in 12 publications, as shown in Chart 3.

Chart 3 - Results of the NWI-R scale domains according to the selected articles. Porto Alegre, RS, Brazil, 2021.

Reference /Participants		Autonomy		Control over the environment		Organizational support		Physician/nurse relationships	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Santos & Erdmann ¹³		2.07	0.5	2.48	0.54	2.2	0.41	2.14	0.54
Alves & Guirardello ¹⁴		1.99	0.59	2.27	0.58	2.13	0.5	1.93	0.65
Oliveira et al. ¹⁵	Institution A	2.00*	1.0-4.0**	2.40*	1.0-3.7**	2.20*	1.0-3.9**	2.00*	1.0-4.0**
	Institution B	2.00*	1.0-4.0**	2.20*	1.1-3.7**	2.20*	1.1-3.8**	2.30*	1.0-4.0**
Oliveira et al. ¹⁶		2.31	0.59	2.52	0.6	2.37	0.5	2.29	0.66
Dorigan & Guirardello ¹⁸		2.29	0.7	2.52	0.68	0.00	0.0	2.22	0.79
Dutra et al. ²⁰		2.11	0.62	2.32	0.59	0.00	0	2.16	0.73
Gasparino & Guirardello ²²	Institution A	2.5	0.5	2.7	0.6	2.5	0.5	2.3	0.6
	Institution B	2.1	0.5	2.5	0.6	2.3	0.5	2.2	0.8
	Institution C	1.8	0.4	2.1	0.5	2.00	0.4	1.9	1.00
Mauricio et al. ²³	Emergency Service	2.4	0.6	2.8	0.6	2.5	0.5	2.2	0.5
	Intensive Care Unit	2.3	0.6	2.7	0.6	2.4	0.5	2.2	0.6
Santos et al. ²⁴	Managerial nurses	1.93	0.95	2.59	0.54	2.21	0.42	2.02	0.54
	Assistance nurses	2.09	0.41	2.46	0.54	2.2	0.41	2.16	0.54
Marcelino et al. ²⁵		2.04	0.56	2.4	0.65	2.22	0.52	2.25	0.71
Guirardello ²⁷		1.93	0.53	2.08	0.53	2.04	0.48	2.1	0.65
Balsanelli et al. ²⁸		2.1	0.6	2.5	0.5	2.2	0.5	1.9	0.7

Source: Prepared by the authors, 2021. *median; **interquartile range.

favorable environment; unfavorable environment.

The application of the PES-NWI scale was identified in five articles of the sample^(17,19,29-32), being adapted and validated to the Brazilian version in 2015, in a Doctoral Thesis, presenting adequate measurement properties, originating the publication of a scientific article^(6,17). In the previous year, the Spanish version of the instrument was validated and adapted in Colombia⁽³¹⁾, showing good

reliability (Cronbach's $\alpha = 0.89$). Both studies were restricted to a population of nurses.

In addition to the studies that assessed the reliability and validity of the instrument^(17,31), PES-NWI was used in a survey of Internet forums on evidence-based Nursing and type of environment⁽³⁰⁾. In Chart 4, the results refer to the description and analysis of the Nursing

practice environment using this scale in the studied sample, emphasizing that there were

no environments classified as mixed.

Chart 4 - Results of the domains of the PES-NWI scale according to the selected articles. Porto Alegre, RS, Brazil, 2020.

Reference / Participants		Participation of nurses in the discussion of hospital issues		Nursing fundamentals focused on quality of care		Ability, leadership and support from nursing coordinators/ supervisors to nurses and Nursing team		Adequacy of the team and resources		Collegial relationships between Nursing professionals and physicians	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Gasparino & Guirardello ¹⁷	Institution A	3.08	0*	3.33	0*	3.14	0*	2.7	0*	2.98	0*
	Institution B	2.77	0*	2.59	0*	2.67	0*	2.17	0*	2.77	0*
Azevedo Filho et al. ¹⁹	Nurse	2.06	0.47	2.13	0.36	2.32	0.58	1.76	0.58	2.68	0.53
	Nursing Technician	2.06	0.59	2.47	0.56	2.46	0.63	1.89	0.66	2.94	0.6
	General	2.06	0.57	2.3	0.53	2.42	0.62	1.86	0.65	2.88	0.59
Lansiquot et al. ²⁹		2.1	0.53	2.5	0.46	2.3	0.59	1.9	0.62	2.6	0.62

Source: Prepared by the authors, 2021. *standard deviation not reported in the article.

favorable environment; unfavorable environment.

In general, the selected articles, had as main their limitations the type of methodological design, which made more robust associations unfeasible, as well as difficulties in generalizing the results due to the specificities of the research scenarios. Among the aspects evidenced in the conclusions of the studies, it is highlighted that the assessment of the practice environment is an important element that permeates several issues, presenting a direct influence on the care and management results.

DISCUSSION

The assessment of the Nursing practice environment is a topic of growing interest among Latin American researchers, although studies developed in different countries in South and Central America are still scarce, with the results pointing to isolated publications, except in Brazil, which emerges with the largest number of published articles, concentrating between 2016 and 2017.

In relation to the Theses and Dissertations, it is observed that the first study of adaptation and validation of NWI-R took place in 2008⁽³²⁾ and that, after 2011, there was an increase in the number of papers on the theme, culminating the peak in the years 2015, 2017 and 2018. These, in turn, design new publications to be released after the data collection period delimited for the present scope.

The predominant methodological design of the sample was cross-sectional, a characteristic also identified in a literature review carried out between 2004 and 2016 covering seven countries, including the United States, Canada, Belgium, Greece, Ireland, Korea and South Africa⁽⁸⁾. In different periods, there was a trend in studies of translation, cultural adaptation and validation of instruments that assess the professional practice environment^(12,17,21,31). The development of research studies with this focus is relevant, considering cultural diversity and specificities in different health contexts, enabling a more

accurate assessment of environments and, consequently, better targeted intervention strategies.

The validation of NWI-R for the Brazilian culture was carried out in 2011 with a sample of 278 nurses, in three public hospitals in the state of São Paulo, assessing the reliability and construct validity of the subscales, through the hypothesis test^(12,21). As of this year, there was a growing trend in the production of articles, Theses and Dissertations on the theme, as shown in Figure 2.

In 2013, authors established a cutoff point in the Brazilian version of NWI-R, identified with a value of 2.5. Thus, it was established that scores below this value would indicate a favorable environment for the professional Nursing practice⁽³³⁾. In view of this classification and analysis in Chart 3, the studies that used this instrument showed a favorable Nursing practice environment, that is, with mean scores below 2.5. It is also highlighted that the control over the environment domain presented an unfavorable perception in five studies, with scores above 2.5^(16,18,22-24).

Considering the context of work organization and training of Nursing professionals in developing countries, the number of nurses with a Bachelor's degree in higher education, equivalent to Registered Nurse in English-speaking or developed countries, is small in relation to the other Nursing professionals called nursing assistants or technicians. In Brazil, the constitution of the workforce is approximately 20% nurses and 80% nursing

assistants or technicians⁽³⁴⁾, characterizing a team organization with shared care actions.

Given this fact, in 2014, the Brazilian version of NWI-R was validated in a sample of 150 nursing assistants and technicians, in two teaching hospitals from the inland of the state of São Paulo⁽²⁵⁾. From this year on, there was an increase in the number of studies that evaluate the perception of nurses, nursing assistants and technicians about the practice environments, describing the results as coming from the Nursing team.

With the need for a statistically more robust instrument that broadens the classification of professional Nursing practice environments, PES-NWI was adapted and validated for the Brazilian culture in 2015; therefore, its use is more recent in the Brazilian context as well as in other Latin American countries^(6,17). For this classification, the means of each of the five domains of the scale must be evaluated, starting from the cutoff point (2.5), resulting in the favorable (four or five subscales above the cutoff point), mixed (two or three subscales above the cutoff point) and unfavorable (one or no domain above the cutoff point) categories⁽³⁵⁾.

In view of the results illustrated in Chart 4, it was verified that the perception of the practice environment is predominantly unfavorable in all domains of the instrument^(19,29), except in collegial relationships between Nursing professionals and physicians. In contrast, only one publication describes the practice environment as favorable⁽¹⁷⁾, highlighting that adequacy of the team and resources is signaled as an unfavorable domain. No

environments characterized as mixed were identified.

In general, the theme addressed in the scientific productions of the studied sample presented an approximation with issues related to quality of care, attitudes and safety climate, job satisfaction and Burnout syndrome. In view of the results of studies that used NWI-R, it can be asserted that the better the perception of the professionals about the characteristics of their work environments, the lower the rates of emotional exhaustion and intention to leave the job, and the better the perception of job satisfaction, quality of care and safety climate^(14,16,20,26,27).

In addition, a meta-analysis that analyzed studies using PES-NWI in 22 countries from North America, Europe, Africa and Asia between 2002 and 2018, also identified an association between the best practice environments with lower chances for the professionals reporting professional exhaustion and intention to leave the job and more positive perceptions of the quality and safety of the care provided to the patient, in addition to evidencing better results regarding patient satisfaction⁽³⁶⁾.

The practice environments in this scoping review were favorable with the application of the NWI-R scale^(13-16,18,20,23-25,27,28) and unfavorable when PES-NWI was used^(17,19,29), a finding that from which greater sensitivity of the latter scale in the analysis of environments can be inferred. Among the domains, control over the environment, in NWI-R, and adequacy of the team and resources, in PES-

NWI, stood out with the worst scores evaluated.

Studies that analyzed the environment of health institutions in the hospital context among nurse managers and assistants⁽²⁴⁾ and with nurses from critical units⁽²³⁾, based on NWI-R, found weaknesses in the control over the environment domain. When relating practice environment and Burnout, for example, it was verified that, in places where the professionals do not perceive the presence of favorable characteristics at work, there is also less perception of control over the environment, with higher levels of emotional exhaustion, depersonalization and low personal achievement⁽²²⁾. Another aspect that can contribute to a worse perception about control over the environment is the number of Nursing professionals for providing assistance, according to a study that evaluated the perception of nurses about the practice environment, job satisfaction, safety climate and correlations with adequacy of material and human resources⁽¹⁸⁾.

With regard to the adequacy of the team and resources domain, factors such as workload, inadequate sizing of the Nursing team and lack of support services, which result in an overload of professional activities, can contribute to a negative result when using PES-NWI, as indicated by a comparative study between public and private hospitals⁽³⁷⁾.

CONCLUSION

From the identification and mapping of the Latin American literary production about the environment of the professional Nursing practice in the hospital setting based on the

NWI-R and PES-NWI instruments, it was evidenced that it has gained prominence only in the last decade, Brazil being the country with the largest number of publications on the topic.

Studies using the NWI-R scale revealed a favorable perception of the practice environment by the Nursing professionals, in opposition to more recent studies that applied the PES-NWI scale, which evidenced unfavorable practice environments. Control over the environment, in the application of NWI-R, and adequacy of the team and resources in PES-NWI, obtained the worst assessment scores, demonstrating issues to be worked on incessantly by Nursing managers in the hospital context and pointing out the need for adequate human and material resources in order to ensure harm-free care and minimize workload and professional exhaustion.

In line with the results of other international studies, the findings of this review point to the association between favorable practice environments and better results for patients and Nursing professionals, reinforcing the importance of developing studies related to the theme.

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