

# SCALE OF EVALUATION OF THE ENVIRONMENTS OF PROFESSIONAL NURSING PRACTICE: CONSTRUCTION AND CONTENT VALIDATION

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## ESCALA DE AVALIAÇÃO DOS AMBIENTES DA PRÁTICA PROFISSIONAL DE ENFERMAGEM: CONSTRUÇÃO E VALIDAÇÃO DE CONTEÚDO

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## ESCALA DE EVALUACIÓN DE LOS AMBIENTES DE LA PRÁCTICA PROFESIONAL DE ENFERMERÍA: CONSTRUCCIÓN Y VALIDACIÓN DE CONTENIDO

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**How to cite this article:** Ribeiro OMPL, Vicente CMFB, Martins MMFPS, Trindade LL, Sousa CN, Cardoso MFPT. Scale of evaluation of the environments of professional nursing practice: construction and content validation. *Rev baiana enferm.* 2020;34:e37996.

**Objective:** to construct and validate the content of the Assessment Scale of Nursing Professional Practice Environments. **Method:** methodological study conducted from January to May 2020. The construction of the Scale after a previous qualitative research and literature review. **Content validation** was performed by 22 experts. **Results:** initially, the Scale had 128 items grouped in the dimensions structure, process and outcome. Due to the experts' evaluation, in the structure dimension, the 65 initial items, 20 were excluded, 10 were reformulated and one, added. In the process dimension, of the 49 initial items, 8 were excluded and 2 were reformulated. In the outcome dimension, of the 14 initial items, 2 were excluded, 2 reformulated and added 1. The final version contained 100 items, in which the Content Validity Index of each item fluctuated between 0.86 and 1. **Conclusion:** the construction and subsequent validation of the items by the experts was a fundamental step, giving security to the continuity of psychometric procedures.

**Descriptors:** Validation Studies. Working Environment. Professional Practice. Nursing. Quality Assurance, Health Care.

*Objetivo: construir e validar o conteúdo da Escala de Avaliação dos Ambientes da Prática Profissional de Enfermagem. Método: estudo metodológico realizado de janeiro a maio de 2020. A construção da Escala foi antecedida de pesquisa qualitativa prévia e de revisão de literatura. A validação de conteúdo foi efetuada por 22 peritos. Resultados:*

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*inicialmente a Escala tinha 128 itens agrupados nas dimensões estrutura, processo e resultado. Decorrente da avaliação dos peritos, na estrutura dos 65 itens iniciais, foram excluídos 20, reformulados 10 e adicionado um. No processo, dos 49 itens iniciais, excluíram-se 8 e reformularam-se 2. No resultado, dos 14 itens iniciais, foram excluídos 2, reformulados 2 e adicionado 1. A versão final ficou com 100 itens, cujo Índice de Validade de Conteúdo de cada item oscilou entre 0,86 e 1. Conclusão: a construção e posterior validação dos itens pelos peritos foi uma etapa fundamental, dando segurança à continuidade dos procedimentos psicométricos.*

*Descritores: Estudos de Validação. Ambiente de Trabalho. Prática Profissional. Enfermagem. Garantia da Qualidade dos Cuidados de Saúde.*

*Objetivo: construir y validar el contenido de la Escala de Evaluación de Ambientes de Práctica Profesional de Enfermería. Método: estudio metodológico realizado de enero a mayo de 2020. La construcción de la Escala ocurrió después de investigaciones cualitativas previas y revisión de la literatura. La validación del contenido fue realizada por 22 expertos. Resultados: inicialmente, la Escala tenía 128 elementos agrupados en las dimensiones estructura, proceso y resultado. Debido a la evaluación de los expertos, en la dimensión estructura, de los 65 puntos iniciales, se excluyeron 20, 10 fueron reformulados y uno añadido. En la dimensión proceso, de los 49 puntos iniciales, se excluyeron 8 y se reformularon 2. En la dimensión resultado, de los 14 elementos iniciales, 2 fueron excluidos, 2 reformulados y añadidos 1. La versión final fue de 100 elementos, cuyo Índice de Validez de Contenido de cada elemento fluctuó entre 0,86 y 1. Conclusión: la construcción y posterior validación de los elementos por parte de los expertos fue un paso fundamental, dando seguridad a la continuidad de los procedimientos psicométricos.*

*Descriptores: Estudios de validación. Ambiente de Trabajo. Práctica Profesional. Enfermería. Garantía de la Calidad de Atención de Salud.*

## Introduction

Nurses and their working environment play a fundamental role in patient safety, as well as in the quality of care provided<sup>(1)</sup>. Recent studies<sup>(2-3)</sup> have confirmed the existence of common predictive factors to patient quality and safety, including job satisfaction and organizational restrictions. They are influenced by insufficient resources and the lack of support from management bodies. From the authors' perspective, investment in these areas will result in improved quality and safety of care provided<sup>(2-3)</sup>.

Despite being the object of study since the 1980s, the nursing professional practice environment, defined as the set of characteristics of the work context that facilitate or embarrass it<sup>(4)</sup>, has earned special attention in recent years<sup>(3,5-6)</sup>. If, on the one hand, following the experience lived by nursing professionals and the increasing demand of patients, the need to improve working conditions may have increased investments in the practical environments, on the other hand, it has become urgent to clarify why, in the practical contexts, the evolution of the profession is not always known, particularly given the significant development of the

Nursing subject<sup>(7)</sup>. In this context, although nurses' involvement in the execution of their professional practice is important, it is crucial to identify how institutions have created conditions that guarantee environments favorable to care quality.

The literature shows that favorable nursing professional practice environments are characterized by adequate material resources, sufficient personnel, leadership and support to nurses, good professional relationships, effective participation of nurses in the organization's internal policies and investment in nursing foundations that ensure care quality<sup>(4-5,8)</sup>.

Investigations argue that a favorable nursing professional practice environment contributes to nurses' satisfaction, to lower Burnout rates, to their retention in organizations, to cost reduction, to optimization of results in relation to clients, culminating globally in improving the quality of nursing care<sup>(3,5,9-10)</sup>. In the international context, Magnet Hospitals have been recognized as those that present more favorable professional practice environments<sup>(5)</sup>, since they evidence a set of characteristics with potential to attract

and retain nurses, which include, for example, the recognition of autonomy, shared decision-making, accountability for the quality of care provided, effective management and leadership, the adequacy of personnel and the flexibility of schedules.

The World Health Organization itself, in its report on the state of the World's Nursing, recalls the need for the various countries to provide an environment favorable to nursing practice, in order to attract, retain and motivate the Nursing workforce, which is truly irreplaceable for the global health of populations<sup>(11)</sup>. In addition to being the main actors in the direct care provision, nurses are also determinant in assessing the quality and safety of care provided to clients, whether the sick, families and/or caregivers<sup>(2)</sup>.

In this context, given the relevance of professional practice environments for ensuring the quality of nursing care and, at the same time, for nurses' well-being, its evaluation is necessary to know the weaknesses and propose strategies that improve their quality. In both international and national contexts, the Practice Environment Scale of the Work Nursing Index<sup>(4)</sup> and the Revised Nursing Work Index<sup>(12)</sup> have been often used as instruments. Although they present different dimensions and items, both allow evaluating nurses' perception of the presence of a set of organizational characteristics in the hospital environment. As confirmed in a literature review<sup>(13)</sup>, the fact that they are essentially focused on the structural conditions of the organization can be considered a limitation of these instruments, as well as their adaptation to the North American reality and the lack of adaptation to the current context.

It is still worth considering that, although this theme is deeply studied in the international context, there are few investigations in Portugal on the nursing professional practice environments, as well as on the lack of instruments appropriate to the specificities of the working contexts, to the particularities of the professional nursing practice practiced in the country, which, at the same time, contemplate all the fundamental

components to the quality of nursing care, that is, the structure, the process and the outcome<sup>(14)</sup>.

A recent literature review<sup>(13)</sup> identified ten instruments evaluating the professional nursing practice environments. Some focused on the structure, while others particularly highlighted the process. Although one of these instruments is already validated for the Portuguese population<sup>(15-16)</sup> and others can be cross-culturally adapted to the reality of the country, a single instrument would not be able to evaluate all the components of professional practice environments that determine the quality of nursing care.

In this context, the development of a more comprehensive instrument has become pressing. The model proposed by Donabedian<sup>(14)</sup>, used in the conception of this instrument, traditionally allows considering the different components of quality, with structure, process and outcome as the three determining elements in the evaluation of the environments of nursing professional practice favorable to the care quality. The author, considered a pioneer in studies on this last aspect, with a look directed to the hospital context, is a classic in health quality studies.

Given the above, this study aims to construct and validate the content of the Evaluation Scale of Professional Nursing Practice Environments.

## Method

Methodological study presenting the construction and content validation of an instrument to evaluate nursing professional practice environments. Initially, for the identification of the items to be included in the instrument, there was the analysis of the data of a previous qualitative research conducted with the participation of 56 nurses from 19 hospital institutions in the five Health Regions of mainland Portugal<sup>(17)</sup>. This phenomenological investigation allowed identifying, with the participation of general care nurses, specialist nurses and nurse managers, the factors of nursing professional practice environments that can promote or compromise the quality of

nursing care in the hospital context. These factors corresponded to attributes perfectly integrated in the Donabedian's triad: structure, process and outcome<sup>(14)</sup>. Subsequently, with a literature review<sup>(13)</sup>, in addition to having been identified, in the international context, ten instruments evaluating the nursing professional practice environments, it was confirmed the pertinence of developing a more integrative instrument, being possible to improve the writing and avoid redundancy between the items included in the instrument to be submitted to evaluation.

After this stage, from the analysis of the items to be included in the instrument, it became relevant to support the conception of the Scale in three dimensions: structure, process and outcome. Thus, following the findings in the interviews conducted in the context of the previous qualitative study<sup>(17)</sup> and resulting from the literature review<sup>(13)</sup>, the first version of the Assessment Scale of Nursing Professional Practice Environments (EAAPPE) consisted of 128 items: 65 items in the structure dimension, 49 items in the process dimension and 14 items in the outcome dimension. Then, the content validation of the items included in the instrument was achieved through the analysis of experts (judges) presented in this study.

In the content validation phase by the experts, initially, for the evaluation of each item of the instrument, on a three-point Likert scale<sup>(18)</sup> (disagree; neither disagree/nor agree; agree), three criteria were considered: relevance, clarity and similarity with other items. Regarding relevance, it was assessed in each item for the construct and its integrated dimension. In addition to the opinion on the aforementioned criteria, concerning each item, experts could make other comments, such as the need for reformulation, repositioning or immediate deletion.

The experts were intentionally selected, being: professors, specialist nurses and nurse managers who have been professionally dedicated to the environments of professional practice and the quality of nursing care. The presentation of the study, the invitation and the electronic questionnaire for participation were sent to 26

experts, but only 22 returned it. Before moving on to answering the questionnaire, the experts agreed, freely and clearly, with their participation. Thus, as recommended by the literature<sup>(18)</sup>, the sample consisted of 22 experts, 11 teaching nurses and 11 nurses in professional practice as specialist nurses or nurse managers.

Although the construction of the instrument began in January 2020, the data collection from the experts occurred during the months of April and May 2020, through the electronic questionnaire, elaborated on Google Forms, containing the experts' characterization, as well as the proposal to evaluate all items of the instrument constructed – the EAAPPE. Regarding the criteria evaluated, the item remained when, in relation to relevance and clarity, the agreement of the experts was greater than 80%. Whenever the experts showed similarity to other items, this item was removed. Subsequently, in addition to the experts' opinion concerning the three mentioned criteria, the Content Validity Index (CVI)<sup>(18-19)</sup> was calculated, which evaluates the experts' agreement regarding the representativeness of each item in relation to the content addressed. If it is  $\geq 0.80$ , it means that the item is valid and must be kept in the instrument<sup>(19)</sup>. To calculate the CVI of each item, the number of experts who agreed with the item was divided by the total number of these professionals<sup>(18)</sup>.

This study is part of the investigation "Hospital Practice Environments Promoting the Quality of Nursing Care", approved by the ethics committee, with the number 137-20.

## Results

Of the 22 experts that participated in the study, although all were nurses, 11 (50.0%) were nursing professors and 11 (50.0%) performed functions as specialist nurses or nurse managers. Most of them were female (68.2%), married or living in a stable union (90.9%), with a minimum age of 32 years and a maximum of 64 years, the mean age was 52.2 years and standard deviation was 9.34. Regarding the academic degree, 13.6% were licentiate, 36.4% were masters and

50.0% were doctors. Regarding the condition in which they performed the profession, 13.6% were coordinating professors, 22.7% specialist nurses, 27.3% nurse managers and 36.4% adjunct professors. The time of professional practice ranged from the minimum of 10 years to the maximum of 43 years, with an average of 30.3 years and standard deviation of 9.46.

As previously mentioned, the instrument submitted to the validation of the experts presented 128 items distributed in three dimensions: structure, process and outcome. It is important to mention, based on the theoretical framework adopted<sup>(14)</sup> and the quality standards of nursing care defined in Portugal<sup>(20)</sup>, that the structure is related to the organizational factors that allow developing nursing professionals' work, as well as the conditions in which care is provided; the process comprises the factors related to the performance of activities inherent to the conception and provision of nursing care, based on defined standards; and the outcome consists of desirable or undesirable changes in

care, clients, as well as nursing professionals. Following the experts' evaluation, in the structural dimension, of the 65 items proposed, 35 were considered appropriate at the initial stage. On the other hand, the existence of repeated information and the presence of vague aspects, difficult to quantify, determined the exclusion of 20 items. The experts' considerations led to the reformulation of the writing of ten items. The item related to the provision of specialized services for nurses facing problematic situations was added at the experts' suggestion. In this sense, the second version of this dimension consisted of 46 items.

To evaluate the relevance of each item regarding the construct, the CVI of the 46 items was calculated, whose results are presented in Chart 1. It is noteworthy that all the values of the CVI were higher than 0.80, translating a good agreement between the different experts regarding the items to be included in the Structure dimension.

**Chart 1** – Experts' agreement in relation to the representativeness regarding the construct of the items in the Structure dimension of the Assessment Scale of Professional Nursing Practice Environments (continued)

<b>Structure Items</b>	<b>CVI*</b>
The institution promotes nurses' participation in the definition of internal policies.	0.95
The institution creates conditions for nurses to act in accordance with the defined goals.	0.91
Nurses know the institution's strategic nursing planning.	0.86
In top management, members of the nursing directorate have powers similar to the elements of the other directorates.	0.91
The communication processes between members of top management, middle management and professionals are effective.	0.91
The institutional training policy considers nurses' training needs.	1.0
The institution creates conditions for nurses to invest in training relevant to their professional development.	0.86
The institution recognizes nurses' postgraduate training (specialty, post-graduation, master's, doctorate).	0.91
In-service training has been planned with nurses' collaboration.	0.95
The institution has a policy of encouraging nursing innovation and research.	1.0
The institution promotes nurses' participation in working commissions/groups in the context of continuous quality improvement.	1.0
The institution defines nursing care quality indicators.	0.91
At the institution, continuous quality improvement projects take into account the quality standards of nursing care.	0.95
The institution defines a culture of customer safety.	0.95
The institution defines a culture of nurses' safety.	0.95

**Chart 1** – Experts’ agreement in relation to the representativeness regarding the construct of the items in the Structure dimension of the Assessment Scale of Professional Nursing Practice Environments (conclusion)

<b>Structure Items</b>	<b>CVI*</b>
The service has an appropriate nurse/client dimensioning.	1.0
The service has an appropriate specialist nurse/client dimensioning.	1.0
In the service, nurses work with qualifications appropriate to the clients’ needs.	0.95
The institution promotes nurses’ internal mobility between services, in order to fill deficits for professionals.	0.91
In the service, nurses’ turnover compromises care quality.	0.86
In the service, an integration plan is adopted for newly admitted nurses.	1.0
The institution presents motivation strategies, as well as reward and incentives for nurses.	0.95
The institution provides specialized services to nurses facing problematic situations.	0.95
The clinical equipment is adapted to the service’s needs.	0.86
Information and communication technologies are suited to the service’s needs.	0.91
Maintenance of the service’s infrastructure is appropriate.	1.0
Maintenance of service’s devices is appropriate.	1.0
The space available in the service is appropriate to the clients’ needs.	0.95
The physical environment is pleasant and comfortable for nurses.	0.91
Nurses are consulted for the selection of materials and equipment.	0.95
In the service, the defined theoretical nursing models should guide nurses’ professional practice.	0.86
There are, in the service, protocols and procedures that guide nursing practice.	0.91
In the service, the distribution of clients by nurses is based on the care intensity, complexity and continuity.	1.0
The nursing work methodology adopted in the service promotes care quality and guarantees safe practices.	0.91
The nurse manager guides nurses in a performance that is consistent with the quality standards of nursing care.	0.91
The nurse manager manages the knowledge and skills of all nurses in the team, so that the defined goals are achieved.	1.0
The nurse manager uses errors as learning opportunities.	1.0
The nurse manager supports the team nurses in the difficulties that emerge on a daily basis, even when in conflict with other professionals.	0.95
The nurse manager values nurses’ opinion and innovative ideas.	1.0
There is equity in working hours and flexibility for changes.	1.0
The nurse manager provides moments of reflection on the practice.	0.91
The nurse manager creates conditions that enhance the professional development of the nurses led by him/her.	1.0
The nurse manager praises the team nurses’ commitment to improve continuously the care quality.	1.0
Nurses have the opportunity to participate in the preparation and implementation of the service’s action plan.	0.86
There is involvement and participation of the team nurses in audit processes.	0.91
The nurse manager provides feedback to nurses about the indicators, audits and evaluation processes of nursing care.	0.91

Source: Created by the authors.

\*CVI: Content Validity Index

Regarding the process dimension, following the evaluation carried out by the experts, of the 49 items proposed, 39 were, in the initial phase, considered appropriate. On the other hand, the lack of relevance of the content and the existence of repeated information determined the exclusion of 8 items. In view of the experts' considerations, the writing of two items was

reformulated. In this sense, the second version of the process dimension consisted of 41 items.

In relation to the relevance of each item regarding the construct, Chart 2 shows the CVIs, highlighting that all values were above 0.80, translating a good agreement between the different experts regarding the items to be included in the Process.

**Chart 2** – Experts' agreement in relation to the representativeness regarding the construct of the items in the Process dimension of the Assessment Scale of Professional Nursing Practice Environments (continued)

<b>Process Items</b>	<b>CVI*</b>
Nurses' professional practice is supported by theoretical nursing references.	0.86
Nurses act in accordance with the regulatory instruments of professional practice.	0.86
Nurses strive to base their professional practice on the best scientific evidence.	0.91
In professional practice, nurses value knowledge in the nursing field.	0.91
Nurses' practice is fundamentally centered on the management of signs and symptoms of the disease.	0.95
Nurses essentially focus on responding to other professionals' prescriptions, with a clear appreciation of the interdependent dimension.	1.0
Nurses have the perception that, with the implementation of interdependent interventions, the work is done.	0.91
Nurses' practice is usually deeply routine, to the point that the organization of nursing care in each shift is determined by routines.	0.95
In nurses' practice, there is a significant focus on human responses to real and potential problems.	0.91
Nurses are concerned with valuing autonomous interventions.	0.95
Nurses' practice fundamentally focuses on preventing complications.	0.91
Nurses focus their attention on the clients' abilities, to the detriment of a perspective centered on their replacement.	0.86
In potential clients, the nurses' practice is centered on the reconstruction of autonomy.	0.86
Assisting clients in the transition processes is nurses' most relevant role.	0.95
Nurses, in their professional practice, adopt care models centered on clients and, consequently, on care individualization.	0.91
Nurses have time to be with clients and go beyond responding to basic human needs.	0.86
Nurses demonstrate autonomy in decision-making about care.	0.91
In the initial assessment, nurses rigorously collect data relevant to the design of nursing care.	0.91
Nursing diagnoses reflect the needs and problems of clients, whether they are a sick person, family or caregiver.	1.0
In the care conception, nurses focus on clients, rather than on the disease process.	0.95
Nurses promote client involvement in nursing care planning.	0.91
Nurses evaluate the results of nursing interventions.	0.91
Nurses systematically update the care plans of all clients.	0.95
Nurses accurately document the planned and executed care in the information system in use.	0.95
Communication between team members is accurate and ensures proper care planning.	0.95
The electronic information system responds to documentation needs and contributes to care continuity.	0.91

**Chart 2** – Experts' agreement in relation to the representativeness regarding the construct of the items in the Process dimension of the Assessment Scale of Professional Nursing Practice Environments (conclusion)

<b>Process Items</b>	<b>CVI*</b>
The information transmitted in the handoff promotes care continuity in subsequent shifts.	1.0
The information transmitted during the handoff is nursing-specific.	0.95
The strategies adopted for the handoff, such as the duration and location, are appropriate to ensure care continuity.	0.95
There are collaborative relationships between the different health team members.	0.95
The working relationship between physicians and nurses facilitates assistance to clients.	0.95
The nurses' clinical opinion is considered when planning clients' discharge.	0.91
Teamwork, which exists in the service among nurses, allows meeting the needs of nursing care.	0.91
There are moments, in the team, when knowledge and experiences about clients' assistance are shared.	0.95
When delegating tasks to functionally dependent professionals, nurses carry out appropriate supervision.	0.95
Within the scope of the multiprofessional team, there is, among the different professionals, understanding and appreciation of their respective roles and responsibilities.	0.95
Nursing care supervision is a planned and systematized activity.	0.91
The evaluation of nursing care is carried out based on the quality standards of nursing care.	0.95
There is reflection on the nursing care quality indicators, so that the defined objectives are achieved.	0.95
There is reflection on the audits and evaluation processes of nursing care, in order to promote the improvement of the care quality.	0.91
Non-conformity notifications are made as a strategy for continuous quality improvement.	0.91

Source: Created by the authors.

\*CVI: Content Validity Index

Regarding the outcome dimension, following the evaluation made by the experts, of the 14 items proposed, 10 were, in the initial phase, considered appropriate. On the other hand, the existence of repeated information determined the exclusion of 2 items. In view of the experts' considerations, the writing of 2 items was reformulated and the item related to the evaluation of nurses' performance was added.

In this sense, the second version of the outcome dimension consisted of 13 items.

Concerning the relevance of each item regarding the construct, Chart 3 shows the CVIs, observing that all values were above 0.80, translating a good agreement between the different experts regarding the items to be included in the Outcome dimension.

**Chart 3** – Experts' agreement in relation to the representativeness regarding the construct of the items in the Outcome dimension of the Assessment Scale of Professional Nursing Practice Environments (continued)

<b>Outcome Items</b>	<b>CVI*</b>
The safety culture is systematically monitored.	0.91
Nursing care quality is systematically monitored.	0.95
Customer satisfaction with the care provided is systematically monitored.	1.0
Nursing indicators are monitored in order to improve quality continuously.	0.91
Complication prevention indicators are systematically monitored.	0.95



**Chart 3** – Experts' agreement in relation to the representativeness regarding the construct of the items in the Outcome dimension of the Assessment Scale of Professional Nursing Practice Environments (conclusion)

Outcome Items	CVI*
Health gains indicators are systematically monitored.	0.95
Missing care (care still to be performed) is systematically monitored.	0.91
Nurses' professional satisfaction is systematically monitored.	0.91
The nurses' performance assessment is precise and rigorous, revealing their real performance.	0.95
Nurses' absenteeism is systematically monitored.	0.95
Nurses' occupational accidents are systematically monitored.	0.86
Nurses' workload is systematically monitored.	0.86
Nurses' turnover in the service is systematically monitored.	0.91

Source: Created by the authors.

\*CVI: Content Validity Index

## Discussion

A nursing professional practice environment is a determining factor for care quality, as well as for obtaining better results for clients, nurses and institutions<sup>(6,10)</sup>. Although in the international context there are several instruments to evaluate the environments of practice<sup>(6)</sup>, the challenge currently lies in the need to have instruments adjusted not only to contemporary work environments, but also to the development of nursing and the particularities of professional practice in several countries. In this context, this study was important, as it allowed the content validation of an Assessment Scale of Nursing Professional Practice Environments. While developing the instrument, it is worth emphasizing that the evaluation of the relevance and clarity of each item enabled the experts to suggest modifications, which increased the adequacy of this analysis tool to practical contexts.

The participation of 50.0% of experts from the academic area and 50.0% from the clinical area contributed to increase the robustness of the current version of the instrument, as the most important aspects are contemplated, in both theoretical and practical components. This methodological option allowed rigorously selecting the items that represent the dimensions to be considered in the nursing professional practice environments favorable to care quality.

In a literature review, the authors confirmed that the domains mapped in the various instruments for assessing nursing professional practice environments, despite showing little consistency in terminology, are overlapping, highlighting: leadership, teamwork, workload, autonomy, participation, relationship with patients, professional development, structural and electronic resources, wage and benefits and safety culture<sup>(6)</sup>.

In the case of the instrument constructed in line with Donabedian's framework, the structure dimension should include organizational resources allowing the development of nurses' work, as well as factors related to the conditions in which care it is provided<sup>(14)</sup>. Thus, although the factors included in each dimension of the instrument proposed in this study are not defined *a priori*, which will only happen in the following validation phases, the 46 items included in the current version of the structure dimension refer to organizational factors, factors related to nursing training, innovation and research, factors related to care quality and safety, factors related to personnel management and material resources, factors related to the organization and sustainability of nursing practice, as well as factors related to management and leadership in the service.

In line with the literature, the items included in the structure reinforce the need to provide

nurses with appropriate working conditions, professional development and participation in the institution<sup>(3,5)</sup>, to ensure the allocation of nurses in adequate number and quality<sup>(21)</sup>, to invest in methodologies for nursing care organization, which, by reducing nurses' workload, allow meeting patients' needs, reducing the risk of adverse events and preventing the deterioration of the clinical condition<sup>(22)</sup> and, simultaneously, ensuring in the services a management/leadership capable of making a difference. Studies show that nurse managers have a direct impact on the performance and well-being of nurses in the teams they lead, as well as on the quality of care provided<sup>(5,9,23)</sup>. In the efforts that managers must make to improve practical environments, it is crucial to recognize and meet the needs of nursing professionals<sup>(3)</sup>. Nevertheless, along with motivation and support strategies<sup>(24)</sup>, equity in working hours and flexibility for changes<sup>(25)</sup> are also fundamental to promote the involvement of these professionals.

Again, in line with Donabedian's reference, in the process dimension, the focus is on the factors related to the execution of activities inherent to the conception and provision of nursing care<sup>(14)</sup>. In this context, and although not defined *a priori*, the 41 items included in the current version refer to factors related to the development of professional practice, factors related to care models, factors related to the scientific methodology adopted in the care provision, factors related to care models, factors related to the scientific methodology adopted in the care provision, factors related to the communication process and care continuity, factors related to collaborative practices and multidisciplinary relationships and factors related to the processes of supervision and evaluation of nursing care.

It is important to highlight that the items included in the process dimension warn, once again, that the nurse's performance must be sustained by the theoretical references of the subject and in the instruments that regulate professional practice<sup>(7)</sup>. Furthermore, it will enhance the adoption of care models centered on people and transitions they experience, rather than focused on pathology, which will culminate

in an adequate appreciation of the autonomous dimension of professional practice<sup>(26)</sup>.

Finally, still in line with Donabedian's reference, in the outcome dimension, the focus is on desirable or undesirable changes, in relation to the institution, care, clients, as well as professionals<sup>(14)</sup>. Thus, concerning this dimension, the 13 items refer to the relevance of monitoring the outcomes related to the institution, care and clients and nurses. As described in the literature, a favorable professional practice environment is characterized by higher professional satisfaction, better performance, higher quality of care provided and lower levels of absenteeism, which consequently improves efficiency, financial viability and institutional security climate<sup>(5,9)</sup>, as well as the experience lived by clients and professionals themselves. In this context, no environment of professional nursing practice can be fully favorable, if there is no evidence of concern with the monitoring of potential outcomes.

As for the values obtained in the CVI, even if the EAAPPE presents adequate content validity, it should be noted that this study corresponds only to one of the first phases of the construction of instruments, requiring its application with the target audience, with subsequent psychometric procedures, which is already in progress in a multicenter study. Although the Scale was constructed based on nurses' practice, validation by the experts was essential, since, in addition to confirming the relevance of the items, they were determinant in improving the writing and, consequently, in the adequacy of the instrument.

In summary, the 100 items included in the current version of the EAAPPE contemplate aspects related to the structure, process and outcome, reinforcing the relevance of considering all factors in nursing professional practice environments promoting care quality. As some authors argue, the application of an instrument with these particularities will be fundamental for managers to know the characteristics of the environments, while providing subsidies for the adoption of strategies that best qualify them<sup>(27)</sup>.

Nevertheless, a limitation consists of the fact that the experts are not from all regions of the country.

## Conclusion

The content validation of the Assessment Scale of Nursing Professional Practice Environments allowed confirming the theoretical relevance of each item included in the three dimensions composing it. The path taken so far indicates that the instrument reflects its purpose. Thus, in future studies, the process of elaboration of the instrument should be continued, in particular the procedures required for its validation.

Based on the Donabedian's theoretical framework, in the future, the use of this metric will allow evaluating the structure, process and outcome components of professional nursing practice environments, configuring itself as a useful tool for defining strategies that ensure favorable environments for the quality of nursing care.

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Received: July 21, 2020

Approved: August 20, 2020

Published: October 14, 2020



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