

REVISIONES

### Validation of instruments for care in pediatrics: an integrative study

Validación de instrumentos para el cuidado en pediatría: un estudio integrativo Validação de instrumentos para o cuidado em pediatria: um estudo integrativo

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### ABSTRACT:

**Objective:** This is an integrative review study, which aims to analyze the national and international scientific production on the validation of instruments used as tools to enhance pediatric care.

**Material and Methods**: We searched the databases SCIELO, LILACS, CINHAL, PUBMED and SCOPUS, using the descriptors in Portuguese, English and Spanish validation, instrument, nursing. The total of 1278 articles were identified. After inclusion and exclusion criteria, we obtained 21 studies that composed the sample.

**Results:** The presentation of the results and the final discussion were done through descriptive statistics, presented the flowchart and interrelated through the content. Of the studies included in the review, 42.8% were published in 2017. Regarding the type of research, 80.9% were methodological studies. The types of validation most portrayed were content, transcultural and integral adaptation. **Conclusion:** After analysis, it was possible to identify a growing production in relation to methods considered valid for care in pediatrics, aiming at the transformation of the care practice regarding methodological innovations within the nursing process.

**Palavras-chave:** Pediatric Nursing; Hospitalization; Nursing Process.

### **RESUMO:**

**Objetivo:** Trata-se de um estudo de revisão integrativa, onde se objetivou analisar a produção científica nacional e internacional sobre a validação de instrumentos utilizados como ferramentas para potencializar o cuidado em pediatria.

**Material e Métodos:** Realizou-se a busca nas bases SCIELO, LILACS, CINHAL, PUBMED e SCOPUS, usando os descritores em português, inglês e espanhol validação, instrumento, enfermagem.

Foram identificados 1278 artigos. Após critérios de inclusão e exclusão, obtiveram-se 21 estudos que compuseram a amostra.

**Resultados:** A apresentação dos resultados e a discussão final foram feitos através da estatística descritiva, apresentados sob a forma de fluxograma e inter-relacionados através do conteúdo. Dos estudos incluídos na revisão, 42,8% foram publicados em 2017. Quanto ao tipo de pesquisa, 80,9% foram estudos metodológicos. Os tipos de validação mais retratados foram do conteúdo, adaptação transcultural e integral.

**Conclusão:** Após análise, foi possível identificar uma crescente produção frente a métodos considerados válidos para o cuidar em pediatria, almejando uma transformação da prática assistencial no tocante a inovações metodológicas dentro do processo de enfermagem.

Palavras-chave: Enfermagem Pediátrica; Hospitalização; Processo de Enfermagem.

#### **RESUMEN:**

**Objetivo:** Se trata de un estudio de revisión integrativa, donde se objetivó analizar la producción científica nacional e internacional sobre la validación de instrumentos utilizados como herramientas para potenciar el cuidado en pediatría.

**Material y Métodos:** Se realizó la búsqueda en bases de SCIELO, LILACS, CINHAL, PubMed y Scopus, usando las palabras clave en portugués, inglés y español validación española, instrumento, enfermería. Se identificaron 1278 artículos. Después de criterios de inclusión y exclusión, se obtuvieron 21 estudios que compusieron la muestra.

**Resultados:** La presentación de los resultados y la discusión final se realizó a través de la estadística descriptiva, en forma de diagrama de flujo e interrelacionados a través del contenido. De los estudios incluidos en la revisión, el 42,8% fueron publicados en 2017. En cuanto al tipo de investigación, el 80,9% fueron estudios metodológicos. Los tipos de validación más retratados fueron del contenido, adaptación transcultural e integral.

**Conclusión:** Después del análisis, fue posible identificar una creciente producción frente a métodos considerados válidos para el cuidar en pediatría, anhelando una transformación de la práctica asistencial en cuanto a innovaciones metodológicas dentro del proceso de enfermería.

Palabras clave: Enfermería Pediátrica; hospitalización; Proceso de Enfermería.

## INTRODUCTION

The human being is vulnerable and prone to various eventualities as regards the compromise of his state of health. When it comes to children, more precisely hospitalized, it turns out that the hospitalization process provides this destabilization of their emotions, as well as physical suffering, especially when subjected to procedures<sup>(1)</sup>.

In turn, the child who experiences the change promoted by the permanence in the hospital environment, shows signs of imbalance and repercussions in different human functions and needs, thus, the pediatric patient needs a differentiated care with regard to nursing care. In this perspective, the use of instruments and other assistance tools that help systematized and coherent care should be associated and / or adapted to make the child care something unique and meticulous in order to avoid erros<sup>(1,2)</sup>.

The use of care tools when implemented from a systematized practice, which requires the organization and cohesion of the information so that it serves as a foundation for the health professional's assistance, should promote the recording of information, as well as the opportunity for a data analysis in order to conduct the care in a more agile way and directed to the real need of the pediatric patient<sup>(3,4)</sup>.

In this way, the use of validated instruments in care practice implies a certification of the care given, since the validity of an instrument refers to the degree to which it is able to measure, how much the results represent the truth or how far its moves away. Validate refers to the agreement of the results obtained through a given instrument in terms of measurement, that is, to the degree of consistency with which a given instrument is measuring the object it proposes to evaluate, this being the focus for which it was created <sup>(5)</sup>.

Faced with the need to expand knowledge about the subject, more precisely about the validation of instruments in pediatrics, associated to the difficult reality faced by nurses who deal with the care of hospitalized children, who need valid instruments that help the care and therefore the confrontation of the peculiarities inherent in each age group, the following question arose: What has been published in the national and international literature on the validation of instruments for pediatric care? How can these instruments enhance the implementation of the nursing process? In this perspective, the aim is to analyze the national and international scientific production on the validation of instruments used as tools to enhance pediatric care.

# MATERIAL AND METHODS

This is an integrative review, referring to the validation of instruments used in pediatric care, this time, six steps were taken to prepare this review, which follows: identification of the problem, definition of the research question, establishment of inclusion and exclusion criteria with literature search, definition of information to be extracted from studies, evaluation of included studies, interpretation of results and synthesis of data and presentation <sup>(6)</sup>.

Aiming to check the methodological criteria inherent to the type of integrative study, the following databases were accessed: Scientific Electronic Library Online (SCIELO), SCOPUS, PubMed, CINHAL and Latin American and Caribbean Literature in Health Sciences (LILACS). The search in several databases had the purpose of increasing the number of publications and minimizing biases, being operationalized from the use of terms identified in the vocabulary on the basis of Health Sciences (DeCS) and Medical Subject Headings (MeSH). Thus, the following descriptors were used to select the articles: "Validação", "Validation", "Instrumento", "Instrument", "Enfermagem", "Nursing" e "Pediatria", "Pediatrics". They were combined with the Boolean operator "AND", in Portuguese and English, with the purpose of carefully selecting the studies that approached the subject, within the selected databases, guided by the following standardized path:

SCIELO e LILACS: Validação AND Enfermagem AND Pediatria / Validação AND Instrumento AND Pediatria

CINHAL, SCOPUS e PUBMED: Validation AND Nursing AND Pediatrics / Validation AND Instrument AND Pediatrics.

Data collection took place from January to April 2018. It should be noted that the following inclusion criteria were adopted: publications in the form of an article, full text, which addressed as a topic the Validation of Pediatric Care Instruments, published between 2007 and 2017, available in Portuguese, Spanish and English. Publications such as, were excluded: theses, dissertations, monographs, course papers, case reports, experience reports, manuals, reviews, previous notes, articles that did not contain abstracts available, that did not deal with the direct validation of instruments

aimed at hospitalized children. The search and selection of the articles were carried out by two reviewers independently, in order to confer greater methodological rigor, being the discordances solved at the moment of detection, in order not to compromise the methodological continuity. We followed the procedure of reading titles, abstracts and articles, complete articles, for analysis of the same, contemplating a question guiding the study.

For the analysis and subsequent synthesis of the articles that composed the sample body, an instrument, built by the researcher, was used for each article. The instrument allowed to obtain information on: year of publication; periodic and impact factor; qualis in nursing; country of origin; language in which it was published; research modality; type of study / approach; level of evidence; study scenario and type of validation performed.

The selected articles were classified in relation to the level of evidence, being: Level I - evidence from systematic reviews or meta-analysis of relevant clinical trials; Level II - Evidence derived from at least one well-delineated randomized controlled trial; Level III - well-delineated clinical trials without randomization; Level IV - well-delineated cohort and control case studies; Level V - systematic review of descriptive and qualitative studies; Level VI - evidence derived from a single descriptive or qualitative study and Level VII - opinion of authorities or report of expert committees<sup>(7)</sup>.

# RESULTS

A total of 1278 articles were identified after searching the databases, with SCOPUS (420 articles), SCIELO (360 articles), LILACS (307 articles), CINHAL (19 articles) and PUBMED (172 articles).

After exclusion of the duplications and adequate screening of the studies, 21 articles were selected to compose the sample of this review following the flowchart:



Source: SCIELO, SCOPUS, LILACS, PUBMED, CINHAL 2007-2017.

The selected studies were characterized according to the information of major scientific relevance pertinent to the subject and, listed under the identification in table 1 by the term "Article", for a better systematics of analysis. As described below, the studies are organized according to authorship, title, periodical, year of publication, profession of authors, Qualis and impact factor.

Table 1- Distribution of selected articles for integrative review. João Pessoa (PB),Brasil, 2018

Article	Author, Title, Periodical, Year, Training.	Qualis	Impact factor
1	Freire MHS, Arreguy-Sena C, Müller PCS. Cross-cultural adaptation and content and semantic validation of the Difficult Intravenous Access Score for pediatric use in Brazil. Revista Latino-Americana de Enfermagem. 2017 <sup>(8)</sup> . Nurses.	A1	0,712
2	Brusckya DMV, Meloa ACCDB, Sarinhoa ESC. Adaptação transcultural e validação da escala de gravidade de prurido em crianças e adolescentes com dermatite atópica. Revista Paulista de Pediatria. 2017 <sup>(9)</sup> physician	B2	0,463
3	Saraiva DCAS, Afonso WV, Pinho NB, Peres WAF, Padilha PC. Cross-cultural adaptation and content validation into Portuguese of the Subjective Global Nutritional Assessment for pediatric patients hospitalized with câncer. Revista de Nutrição. 2017 <sup>(10)</sup> . Nutritionists.	B1	0,365
4	Braccialli LMP, Almeida VS, Sankakoa AN, Silva MZ, Braccialli AC, Carvalho SMR, Magalhães AT. Translation and validation of the Brazilian version of the Cerebral Palsy Quality of Life Questionnaire for Children - child report. Jornal de Pediatria. 2016 <sup>(11)</sup> . Physiotherapists / Pedagogues.	B1	1,690
5	Feldena EPG, Carniel JD, Andrade RD, Pelegrini A, Anacleto TS, Louzada FM. Translation and validation of the Pediatric Daytime Sleepiness Scale (PDSS) into Brazilian Portuguese. Jornal de Pediatria. 2016 <sup>(12)</sup> . Physical Educators.	B1	1,690
6	Pires MPO, Pedreira MLG, Peterlini MAS. Cirurgia segura em pediatria: elaboração e validação de checklist de intervenções pré-operatórias. Revista Latino-Americana de Enfermagem. 2013 <sup>(13)</sup> . Nurses.	A1	0,712
7	Becker MM, Wagner MB, Bosa CA, Schmidt C, Longo D, Papaleo C, Riesgo RS. Translation and validation of Autism Diagnostic Interview-Revised (ADI-R) for autism diagnosis in Brazil. Arquivos de Neuro-psiquiatria. 2012 <sup>(14)</sup> . Psychologists / physician / Pedagogues.	B1	0,159
8	Maia ACAR, Pellegrino DMS, Blanes L, Diniz GM, Ferreira LM. Tradução para a língua portuguesa e validação da escala de Braden Q para avaliar o risco de úlcera por pressão em crianças. Revista Paulista de Pediatria. 2011 <sup>(15)</sup> . Physician.	B2	0,463
9	Marquesa DKA, Silva KL, Nóbrega MML. Escolares hospitalizados: proposta de um instrumento para coleta de dados à luz da teoria de Horta. Revista Gaúcha de	B1	0,500

	Enfermagem. 2016 <sup>(16)</sup> . Nurses.		
10	Martins COA, Curado MAS. Escala de Observação do Risco de Lesão da Pele em Neonatos: validação estatística com	B2	0,237
	recem-nascidos. Revista de Enfermagem Referencia.		
11	2017 <sup>107</sup> . Nurses. Curado MAS: Maroco IP Vasconcellos T. Couveia IM	B2	0 227
	Thoyre S. Validação para a população portuguesa da Escala	DZ	0,237
	de Observação de Competências Precoces na Alimentação		
	Oral. Revista de Enfermagem Referência. 2017 <sup>(18)</sup> . Nurses/		
	Psychologists.		
12	Fernandes A, Batalha L, Perdigão A, Campos C, Nascimento	B2	0,237
	L, Jacob E. Validação cultural do Adolescent Pediatric Pain		
	1001 (APP1) em crianças portuguesas com cancro. Revista		
13	Schardosim IM Ruschel I M Motta GCP Cunha MIC	Δ1	0 712
15	Adaptação transcultural e validação clínica da Neonatal Skin		0,712
	Condition Score para o português do Brasil. Revista Latino-		
	Americana de Enfermagem. 2014 <sup>(20)</sup> . Nurses.		
14	Santos NC, Fugulin FMT. Construção e validação de	A2	0,743
	instrumento para identificação das atividades de enfermagem		
	carga de trabalho Revista Escola de Enfermagem da USP		
	$2013^{(21)}$ . Nurses.		
15	Dini AP, Guirardello EB. Sistema de classificação de	A2	0,743
	pacientes pediátricos: aperfeiçoamento de um instrumento.		
40	Revista Escola de Enfermagem da USP. 2014 <sup>(22)</sup> . Nurses.	A 4	0.740
16	Fujinaga CI, Moraes SA, Amorim NEZ, Castral TC, Silva AA,	A1	0,712
	da Prontidão do Prematuro para Início da Alimentação Oral		
	Revista Latino-Americana de Enfermagem. 2013 <sup>(23)</sup> . Nurses.		
17	Aftyka A, Walaszek IR, Wrobel A, Bednarek A, Katarzyna	B2	1,318
	Dazbek K, Zarzycka D. Support provided by nurses to		
	parents of hospitalized children – cultural adaptation and		
	validation of Nurse Parent Support Tool and Initial research		
	Nurses/ Physician.		
18	Dini AP, Fugulin FMT, Veríssimo MLR, Guirardello EB.	A2	0,743
	Sistema de Classificação de Pacientes Pediátricos:		
	construção e validação de categorias de cuidados. Revista		
40	Escola de Enfermagem da USP. 2011 <sup>(23)</sup> . Nurses.	A 4	0.000
19	MI Halpert S. Augenstein J. Sickles J. F. Li C. Greenwald B.	AT	6,630
	Cornell Assessment of Pediatric Delirium: A Valid Rapid		
	Observational Tool for Screening Delirium in the PICU.		
	Critical Care Medicine. 2017 <sup>(26)</sup> . Physician.		
20	Cheng KKF, Ip WY, Lee V, Li CH, Yuen HL, Epstein JB.		1,959
	Measuring Oral Mucositis of Pediatric Patients with Cancer: A	-	
	Psychometric Evaluation of Chinese Version of the Ural		
	Oncology Nursing 2017 <sup>(27)</sup> Nurses/ Physician		
21	Coelho AV. Molina RM. Labegalini MPC. Ichisato SMT.	B1	0.500
	Pupulima JSL. Validação de um histórico de enfermagem		-,*
	para unidade de terapia intensiva pediátrica. Revista Gaúcha		
	de Enfermagem. 2017 <sup>(28)</sup> . Nurses.		

Source: SCIELO, SCOPUS, LILACS, PUBMED, CINHAL 2007-2017.

Of the 21 articles selected, in relation to the average of publication in the established period, the year of 2017 presented the largest number of publications, with nine (42.8%).

In relation to the journals, the Revista Latino Americana de Enfermagem and the Revista de Enfermagem Referência led the publications, four (19.0%) and three (14.2%), respectively. The 21 selected publications are distributed in eleven journals, of which three (27.3%) were international and eight (72.7%), national. Regarding the training of the authors involved in the production of the articles, the professional who leads the production of the articles within the thematic is the nurse, corresponding to the 14 (66.6%) published studies. In terms of language, eight (38.0%) articles published in English and 13 (62.0%) in Portuguese.With respect to Qualis, the 10 journals presented the following distribution in Qualis stratification: 2A1, 1A2, 4B1 and 3B2. Regarding the impact factor, the highest value was assigned to the journal Critical Care Medicine with 6,630.

When referring to the places where the studies were carried out, six (28.5%) were carried out internationally, the others in the number of 15 (71.5%), in different regions / states of Brazil, being one of the studies national level of multicenter. Regarding the type of study, 17 (80.9%) were of the Methodological type, and four (19.1%), distributed as case-control, descriptive correlational, transverse and cohort. As for the scenarios, 18 (85.7%) were performed in care services for hospitalized children, permeating between clinic, emergency and intensive care. Two (9.5%) did not report their place of performance, and one (4.8%) was performed in a school environment, their insertion in the sample is due to the fact that the instrument presents changes in the sleep pattern, which can be used in the hospitalized child <sup>(12)</sup>. The most mentioned types of validation were content, transcultural and integral adaptation, the latter being considered a set of validation methods focused on the instrument used in the study.

Table 2 - Distribution of studies about the validation of pediatric nursing instruments,
according to the characteristics of the articles. João Pessoa, Brazil, 2018.

Record	Origin	Type of study	Level of evidence	Study scenario	Type of validation
Article 1	Parana, Brazil	Methodolo gical	111	Unit of Pediatrics of a public hospital.	Transcultural adaptation / integral validation
Article 2	Pernamb uco, Brazil	Methodolo gical	III	Ambulatory of Immunology and Pediatrics of HC / UFPE.	Transcultural adaptation / integral validation

Article 3	Rio de Janeiro, Brazil	Descripti ve / Methodol ogical	VI	Instituto de Nutrição JC and INCA- JAGS.	Transcultural adaptation and content validation
Article 4	Not describe d	Methodol ogical / Multicentr ic	III	University Centers working with Child Cerebral Palsy.	Transcultural adaptation / integral validation
Article 5	Santa Catarina/ Parana, Brazil	Methodolo gical	III	Private schools in SC and PR.	Transcultural adaptation / integral validation
Article 6	São Paulo, Brazil	Methodolo gical	III	CIPE unit of a SP HU.	Validation of content and construct
Article 7	Porto Alegre, Brazil	Case- control	IV	Pediatric Unit of the HC of Porto Alegre.	Validation of criterion and content
Article 8	São Paulo, Brazil	Descripti ve / Methodol ogical	VI	Pediatric ICU of Hospital São Paulo.	Transcultural adaptation and validation of face and content
Article 9	Paraíba, Brazil	Methodolo gical	III	HULW Pediatric Clinic.	Validation of content and appearance.
Article 10	Lisbon, Portugal	Methodolo gical	III	Unit of Neonatology	Transcultural adaptation / integral validation
Article 11	Lisbon, Portugal	Methodolo gical	III	Units of Neonatology	Transcultural adaptation / integral validation

Article 12	Coimbra, Portugal	Methodolo gical	111	CHC and Instituto Português de Oncologia.	Transcultural adaptation / integral validation
Article 13	Rio Grande do Sul, Brazil	Methodolo gical	111	Neonatology of the HC of Porto Alegre.	Transcultural adaptation and clinical validation
Article 14	São Paulo, Brazil	Methodolo gical	III	Pediatric Units.	Content validation
Article 15	São Paulo, Brazil	Descriptiv e / Explorator y / Correlatio nal	VI	Not informed in the study.	Validation of content and construct
Article 16	São Paulo, Brazil	Methodolo gical	III	UCIN of the HU of Ribeirão Preto.	Clinical validation
Article 17	Lublin, Poland	Quantitati ve/Transv ersal	VI	NICUs and General Pediatric Nursing of a Polish hospital.	Transcultural adaptation / integral validation
Article 18	São Paulo, Brazil	Methodolo gical	III	Not informed in the study.	Content validation.
Article 19	New York, USA	Methodolo gical	III	CMU Pediatric Clinic.	Content validation.
Article 20	Hong Kong, China	Cohort	IV	Pediatric Oncology Centers.	Face and Content Validation
Article 21	Paraná, Brazil	Methodolo gical	III	Pediatric ICU of a HU in Paraná.	Validation of appearance and content

Source: SCIELO, SCOPUS, LILACS, PUBMED, CINHAL 2007-2017.

# DISCUSSION

The synthesis elaborated from the selected articles shows that the motivation for validation of instruments for pediatric care is diverse and is linked to facts such as: intravenous access, atopic dermatitis, pediatric cancer patients, quality of life of children with cerebral palsy, preoperative pediatrics, sleep pattern, autism diagnoses,risk for skin lesions in children and neonates, data collection in adolescents, skills for oral feeding, pain in adolescents, classification of pediatric care; in the states of São Paulo and Paraíba, Brazil, authors in their studies created and validated instruments used to collect data from patients admitted to the pediatric sector, as well as for analysis of characteristics pertinent to treatments and diagnostic conditions (<sup>13,16</sup>). In addition to being used in the assistance aimed at conducting the care and diagnostic formulation of nurses to their staff, the instruments worked in pediatrics are the targets of the validation researches developed from the search of the large area of health of the child with focus on the hospitalized child (<sup>14-16</sup>).

Strategically, with the process of validation and construction of instruments, it is envisaged to facilitate the access of the nurse professional to the patient and, consequently, the information inherent to it and, therefore, to the care. The quality of the assistance rendered becomes evident from the moment in which the validation and instrumental adaptation take place, in view of the great performance and precision in the use, formulation, as well as structuring of the instrumental tool. This fact is evidenced when studies conducted in Curitiba / Paraná, Pernambuco / Paraíba and Hong Kong / China, the authors use the strategy of content validation and transcultural adaptation of instruments for improvements pertinent to the difficulty of venous access in pediatric patients and evolution in the process of evaluation of atopic dermatitis in children, besides the verification and measurement of oral mucositis in pediatric patients who experience childhood cancer <sup>(8,9,11,27,28)</sup>.

Due to the variety of validation techniques used by the authors as well as the precision in working with them to contribute to improvements in care, the discussion on the types of priority validation used in the sample studies was salutary.

<u>Validation of the Content</u>, being this one of the most used in the pertinent studies in the pediatric nursing area, consists of a careful analysis of the items that express some content and that make up an instrument, being a strategy that allows the establishment of a sequence of topics to be checked cautiously by judges chosen under criteria of inclusion, in detail, listed<sup>(14,15,18,19)</sup>. Content validation effectively works out the mandatory requirements that an instrument presents to measure a phenomenon. After analyzing the experts, the verification of the consistency of the suggestions can occur in a statistical way, being the responsibility of the researcher to guide this step in search of the improvement of the instrument. As far as statistical evaluation is concerned, one of the tests most used in content validation studies is Cronbach's Alpha, which analyzes the internal consistency of the instrument and the items that compose it<sup>(7,8,20,21)</sup>.

<u>Adaptive validation</u> based on transculturality and integral validation, consist of the second type of validation most present in the studies that composed the sample. Methodologically they contemplate the articles that used a set of validatory forms that, in turn, are based on the statistical analysis proving the validly satisfactory results, being thus described due to the use, systematically, step by step, that are: translation

of the original instrument in English into the Portuguese language; retranslation of the instrument in Portuguese into the English language; technical review and evaluation of semantic equivalence; content validation; evaluation of the instrument by the specialists and target population and evaluation of the instrument's internal consistency <sup>(3,8,10,12,13,17)</sup>.

<u>Validation of Appearance</u> is intended to validate the instrument used for purposes of evaluating the suitability of the items, their relationship to the structural components of the instrument, and also with all the content present between the lines. It is a type of subjective validation and not very sophisticated, but rather used in methodological background studies <sup>(16,28)</sup>.

<u>Clinical validation</u> consists of a verification of the instrument used as a methodological component of a determinate means of care action or even of variables that make up the professional work process (in nursing, for example, diagnoses) from a clinical judgment , clinical analysis, based on the theory pertinent to the clinical aspects refined in the tool to be validated, as well as the statistical methods themselves, which support validity robustness. In this type of validation, when present in pediatric studies, the use of the Cronbach's Alpha, ROC Curve and Kappa Index is used as statistical subsidy for the clinical analyzes of the consistency and reliability of the instrument's measurable profile. However, it is worth emphasizing the great variability of statistical forms for the analysis of clinical validation studies<sup>(20,23)</sup>.

<u>Validation of Face</u>, method used to validate, collectively with professionals focused on the area of interest of what is being validated, an instrument and its ability to measure what it proposes, as well as whether it in its entirety fits the content that makes it up, thus making face validation a subtype of content validation <sup>(15)</sup>.

<u>Validation of Criterion</u>, is to verify the degree of the relationship between the performance of the subjects surveyed and their actual behavior when the measurement tool is used during the analysis of the data. The criterion, in this type of validation, becomes a second measure that evaluates the same concept studied, because the degree to which the instrument discriminates between people who differ in a certain characteristic will be analyzed according to a standard criterion. In addition, criteria external to the evaluation of the subjects can be established from the process of construction of the data that are based on the new criteria that will emerge <sup>(14)</sup>.

<u>Validation of the Construct</u>, type of validation that is based on a measure of verification of a trace or theoretical construct. In nursing, widely used in theory-building studies as a way of consolidating theoretical support content, taking into account the importance of the validation of the theoretical body that sometimes underlies the hypothetical relationships, or not, intrinsically linked to the reality of care <sup>(13,22)</sup>.

As far as pediatric production is concerned, the studies that compose the sample emphasize the construction and validation of instruments that contemplate, in a detailed way, the aspects of the investigated phenomena in the pediatric care practice, seeking improvements in the nurses' care in the hospital environment, as is clear from the authors who constructed instruments and validated them<sup>(29)</sup>.

In addition, through the analysis of the studies, it was verified that, the authors work primarily with the validation of instruments that can be used to guide care in its most varied aspects, more strictly within each stage of the nursing process <sup>(29)</sup>. Nursing

professionals are committed to establishing practices based on scientific evidence. Caring for the child is a challenge, given the great clinical variability inherent to its development and growth process, as well as the complex relationship between living socially beyond the hospital and staying in the process of hospitalization and disruption of its biopsychosocial needs <sup>(30)</sup>. Studies show that the greater the concern of the nurse professional in improving their practice of care for the hospitalized child through devices that excel at making the care agile and precise, the better the intrinsic relationship between the therapeutic knowledge, exercise and progression of the health condition of the small patient <sup>(12,30)</sup>.

Thus, the great importance of the growing production focused on the improvement of the validation instruments in pediatrics is visible,taking into account that the professional staff of nurses seeks, on a daily basis, to promote the conceptualization of the phenomena that make up the care and the respective treatments performed, making the studies primordial to the scientific basis of the profession,away from the nurse who takes care of the hospitalized child of assistance goals and empirical deductive diagnoses. Therefore, the visibility of the pediatric professional practice becomes increasing from the methodological contribution of the nurse to the care, mainly when this one implies in understanding the peculiarities of the child evidenced in all its process of becoming ill.

## CONCLUSION

In the analyzed articles, it was found that care for the hospitalized child becomes more and more worked, since the search for improvements in the instruments used in daily care, nationally and internationally, scientifically based on methods that make them valid, has been the crucial point developed by nurses who work with the objective of transforming the practice in front of methodological innovations within the nursing process.

Regarding the limitations pertinent to the sample of the present study, it is possible to cite the lack of records in the bases on the effectiveness of the use of the instruments after the triad of creation, validation and problematization, considering the great contribution to the professionals who experience the care based, in some stages, on the studied instrument.

In addition, it is important to make explicit the need for publications focused on the theme, especially the effective publication of studies that are still interposed in the completion of the post-graduate courses strictly in the area.

It is excellent to problematize reality and modify it according to the need of the target public, in this case hospitalized children. Even in the face of nurses' efforts to produce studies that demonstrate ways to increase care and progress in the diagnostic requirements for the child, we highlight the importance of identifying and developing research that seeks to improve nursing care in the child's health aspect, primarily if they are developed with respect to the methodological progress of care.

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