Validating a Nursing Assessment instrument in a Pediatric Intensive Care Unit

Validação de instrumento de Histórico de Enfermagem para Unidade de Terapia Intensiva Pediátrica Validación de instrumento de histórico de enfermería para Unidad De Terapia Intensiva Pediátrica

Aline Medianeira Gomes Correa

ORCID:0000-0003-4580-5286

Daniel Soares Tavares¹ ORCID:0000-0002-4811-6761

Cristina Maria Garcia de Lima Parada"

ORCID: 0000-0002-9597-3635

Adriana Dall'Asta Pereira^I ORCID: 0000-0003-2698-2711

Joel Rolim Mancia^{III}

ORCID: 0000-0001-9817-2537

Dirce Stein Backes¹

ORCID: 0000-0001-9447-1126

'Universidade Franciscana. Santa Maria, Rio Grande do Sul, Brazil. " Universidade Estadual Paulista Júlio de Mesquita Filho. São Paulo, São Paulo, Brazil. "" Universidade do Vale do Rio dos Sinos. Porto Alegre, Rio Grande do Sul, Brazil.

How to cite this article:

Correa AMG, Tavares DS, Parada CMGL, Pereira AD, Mancia JR, Backes DS. Validating a Nursing Assessment instrument in a Pediatric Intensive Care Unit. Rev Bras Enferm. 2020;73(Suppl 4):e20190425. doi: http://dx.doi.org/10.1590/0034-7167-2019-0425

Corresponding author:

Aline Medianeira Gomes Correa E-mail: alinemgc@yahoo.com.br



EDITOR IN CHIEF: Dulce Barbosa ASSOCIATE EDITOR: Marcia Magro

Submission: 06-17-2019 **Approval:** 07-01-2020

ABSTRACT

Objective: To develop and validate a Nursing History instrument for a Pediatric Intensive Care Unit, based on the Theory of Basic Human Needs. **Methods:** Methodological study, developed between October 2018 and April 2019, based on the establishment of a theoretical-conceptual structure; construction of items and of the response scale; selection and organization of items; structuring the instrument; expert opinion; and content and appearance validation. **Results:** The instrument was organized in three sequential and complementary stages. The first stage considered data collection; the second, the collection of additional information, like Psychobiological, Psychosocial and Psychospiritual Needs; and the third collected data related to a physical examination. The instrument had good internal consistency (0,75) and an agreement percentage equal to or greater than 0,83. **Conclusion:** The Nursing History instrument developed and validated here can be considered relevant and pertinent in terms of content, clarity, scope, and appearance.

Descriptors: Nursing; Validation Studies; Nursing Process; Child Health; Intensive Care Units, Pediatric.

RESUMO

Objetivo: Elaborar e validar instrumento de Histórico de Enfermagem para Unidade de Terapia Intensiva Pediátrica, com base na Teoria das Necessidades Humanas Básicas. **Métodos:** Estudo metodológico, desenvolvido entre outubro/2018 e abril/2019, com base no estabelecimento da estrutura teórico-conceitual; construção dos itens e escala de resposta; seleção e organização dos itens; estruturação do instrumento; opinião de especialistas; e validação de conteúdo e aparência. **Resultados:** O instrumento foi organizado em três etapas sequenciais e complementares. A primeira considerou a coleta de dados; a segunda, a coleta de informações adicionais, referente às Necessidades Psicobiológicas, Psicossociais e Psicoespirituais; e a terceira, dados relativos ao exame físico. O instrumento apresentou consistência interna (0,75) e percentual de concordância igual ou superior a 0,83. **Conclusão:** O instrumento de Histórico de Enfermagem desenvolvido e validado pode ser considerado relevante e pertinente quanto ao conteúdo, clareza, abrangência e aparência.

Descritores: Enfermagem; Estudos de Validação; Processo de Enfermagem; Saúde da Criança; Unidades de Terapia Intensiva Pediátrica.

RESUMEN

Objetivo: Elaborar y validar instrumento de Histórico de Enfermería para Unidad de Terapia Intensiva Pediátrica, basada en la Teoría de las Necesidades Humanas Básicas. Métodos: Estudio metodológico, desarrollado entre octubre/2018 y abril/2019, basado en el establecimiento de la estructura teórico-conceptual; construcción de los ítems y escala de respuesta; selección y organización de los ítems; estructuración del instrumento; opinión de especialistas; y validación de contenido y apariencia. Resultados: El instrumento ha sido organizado en tres etapas secuenciales y complementarias. La primera consideró la recogida de datos; la segunda, la recogida de informaciones adicionales, referente a las Necesidades Psicobiológicas, Psicosociales y Psicoespirituales; y la tercera, datos relativos al examen físico. El instrumento presentó consistencia interna (0,75) y porcentual de concordancia igual o superior a 0,83. Conclusión: El instrumento de Histórico de Enfermería desarrollado y validado puede ser considerado relevante y pertinente cuanto al contenido, clareza, abarcamiento y apariencia. Descriptores: Enfermería; Estudios de Validación; Proceso de Enfermería; Salud del Niño; Unidades de Terapia Intensiva Pediátrica.



INTRODUCTION

Over the years, nursing has focused on a knowledge based on scientific theories, on a critical-reflective and participatory process, which allowed it to assert itself as art and science⁽¹⁻²⁾. In search of autonomy and professional empowerment, nursing has expanded its theoretical and practical knowledge through the implementation of the Nursing Care Systematization (NCS) and its operationalization through the Nursing Process (NP)⁽³⁾. In Brazil, NCS began to be implemented, with greater emphasis in the 1970s and 1980s, under the leadership of Wanda de Aguiar Horta, with the Theory of Basic Human Needs⁽⁴⁻⁵⁾.

Nursing Care Systematization can be considered a theoretical-methodological tool that effectively contributes to the organization, planning and execution of systematized actions. When guided by Nursing Theory and the Nursing Process (NP), as a scientific method, NCS is organized into five sequential and complementary steps: Nursing Assessment (or data collection), Diagnosis, Prescription, Implementation, and Nursing Evaluation. In this context, NP is defined as a systematic directive that directs and guides clinical judgment towards the singular and expanded nursing care⁽⁶⁾.

Although most nurses are already aware of the need to implement the NCS, based on the Resolution of the Federal Nursing Council (Cofen) 358/2009, the implementation process, as well as the choice of an adequate and consistent theoretical framework with the different realities, for the effective implementation of this process, is still a challenge for most professionals in the area⁽⁷⁾. It is recognized that NCP, based on specific knowledge and a critical reflection of the organization, management, and on the philosophy of nursing work, is a possible and viable path, in addition to being highly effective. Its optimization improves the quality of nursing care in the different spaces in which nurses provide assistance⁽⁸⁾.

As the theoretical and methodological inconsistencies and weaknesses in the realization of the NP were evidenced, the Cofen strategically published, through the Professional Post Graduation Programs, through a cooperation agreement with Capes (the Coordination for the Improvement of Higher Education Personnel), a specific public notice for the training of nurses, focused on NCS and the implementation of the NP. Based on this publication, Cofen recognized that the *stricto sensu* postgraduation, professional modality, has shown a growing potential to intervene directly in the demands and needs of the work market. In addition, Cofen observed that nursing professionals need, as the largest workforce in the Unified Health System (SUS), to expand their field of vision and activity by understanding, creating, and validating new products, processes, technologies, and nursing care qualification methodologies^(6,9).

Thus, based on the approval given by Capes/Cofen 27/2016, a group of professors from the Universidade Franciscana, together with eight nurses working in the Single Health System (SUS), who were then master's students, had the motivation and the opportunity to make theoretically sustained efforts to focus on NCS and the implantation of NP, in different environments and spaces. Based on this movement, it was possible to expand tools related to the construction, validation, and implementation of instruments with the stages of the Nursing Process. Among them, Nursing Assessment is considered to be the initial point for the other stages, since it formalizez the collection of information that will support the planning of care⁽¹⁰⁻¹³⁾.

OBJECTIVE

To develop and validate a Nursing Assessment instrument for the Pediatric Intensive Care Unit, based on the Theory of Basic Human Needs.

METHODS

Ethical aspects

In compliance with the ethical precepts provided in Resolution 466/2012⁽¹⁴⁾, this study was approved by the Research Ethics Committee and also by the Teaching and Research Management of the hospital where the research took place.

Design, period, and place of study

This is a methodological study, carried out between October 2018 and April 2019, aimed at the elaboration of a Nursing Assessment instrument, based on the Theory of Basic Human Needs (TNHB) ⁽⁴⁾. The TNHB was chosen due to its singular and multidimensional concepts, that is, because it considers the human being, in this case the child/adolescent, in their singular and multidimensional dimension⁽¹⁵⁻¹⁶⁾.

The Nursing Assessment Instrument was constructed and is being implemented in the Pediatric ICU of a teaching hospital in the central region of the state of Rio Grande do Sul. It is a large institution, which provides 100% of its services through the Single Health System. The unit in question has eight beds for children from 29 days to 18 years of age.

Study protocol

For the elaboration of the Nursing Assessment instrument, an in-depth bibliographic survey was carried out regarding the nursing theme and theories^(10,17-30). Based on TNHB, the validation instrument was developed starting with the establishment of the theoretical-conceptual framework; construction of items and response scale; selection and organization of items; structuring of the instrument (instrument attached); expert opinion; and content and appearance validation of the Nursing Assessment instrument, in its final version, which will be presented in the results section.

The validation instrument was organized, in terms of appearance, in three sequential and complementary sections. The first section consisted of collecting personal data from the child/adolescent and their guardian. In the second, an individual interview was proposed, to collect information, regarding the Psychobiological Needs (Neurological Regulation and Perception of Organs and Senses; Skin Integrity, Thermal and Vascular Regulation; Oxygenation; Food/Nutrition and Eliminations); Psychosocial (Security, Love and Attention); and Psycho-spiritual (Religious and Theological), in addition to contemplating data from the health-disease process. The third section included data related to physical examinations, according to the conceptual model adopted.

The instrument validation process was based on the Delphi Technique and had the participation of specialist nurses in the pediatric area. The Delphi Technique consists of evaluating an

instrument/questionnaire as many times as the researcher deems necessary, with care to preserve the anonymity of the specialists⁽³¹⁾. With each new round, relevant and pertinent information may be added to the instrument so that, at the end of the process, the desired validation is achieved⁽³²⁾.

As a criterion for the inclusion of specialists, the Snowball method was used. Initially, five specialists were chosen, through the Curricula at the Lattes platform. To be chosen, specialists needed more than two years of experience in Pediatric Intensive Units and, from the researchers' point of view, needed to be people capable of contributing with relevant and pertinent information. The first ones chosen, in turn, indicated other specialists based on the desired profile⁽³³⁾. Thus, based on the inclusion and exclusion criteria previously established, 19 experts participated in the study, who contributed to validate the content of the instrument and its appearance, for the final version. They were contacted by e-mail and included in the study after signing the Free and Informed Consent Form, also sent by e-mail. Thus, in the first round, the experts' comments and suggestions were identified by E1, E2, and so on; and, in the second round, by Es1, Es2... Es19.

In the first round, the experts evaluated the items included in the Nursing Assessment validation instrument, judging their content and appearance⁽²⁹⁾. In the second round, the experts analyzed the appearance of the instrument, and whether the subitems changed and/or included due to the considerations from the first round were clear and understandable in the form⁽³⁴⁻³⁵⁾.

Analysis of results and statistics

For the analysis of items and sub-items, the Likert scale was structured in five propositions: "disagree", "totally disagree", "no opinion", "agree" or "totally agree", in addition to the space for comments from the specialists (35,36-37). Thus, for the analysis of each response, a numerical value from "1" to "5" was assigned. In this analysis process, the Content Validity Index (CVI) was considered in each of the items and sub-items (29-30).

For each item, the CVI was calculated, based on the answers

"4" (agree) and "5" (totally agree) and the total number of specialists. In this study, a CVI equal to or greater than 0,8 was considered as a cutoff, although studies consider that values above 0,75 represent excellent agreement. Thus, the items analyzed with a value of 0,75 were incorporated, removed and/or modified according to the suggestions presented (34-35).

After analyzing the responses, the items were validated, excluded, and/or modified until the desired validation was achieved. The Nursing Assessment instrument was considered validated in its final version only after the experts

agreed, in terms of content and appearance. At the end of the process, the elaboration of a Nursing Assessment instrument of just two pages (front and back) was chosen, to make it attractive, practical, and operational.

RESULTS

The instrument was organized and validated in three sequential and complementary steps. The first step consisted of collecting personal data from the child/adolescent and their guardian. The second stage was the collection of information through individualized interviews, in which the Psychobiological, Psychosocial, and Psychospiritual Needs were investigated, in addition to information about the health/disease process. The third and last stage considered data related to the physical examination, guided by the conceptual model. During this process, six items received significant changes, since they presented an agreement percentage below 0.75. In general, the items evaluated showed good internal consistency (0.83) regarding their domains.

The validation process of the Nursing Assessment instrument will be detailed in the topics: Experts participating in the study; First round: appearance and content validation; and Second round: validation of relevance, clarity, and comprehensiveness.

Experts participating in the study

Nineteen experts participated in the study. Initially, 5 of them were chosen through their Lattes Platform Curricula. They had more than two years of theoretical and practical expertise in Pediatric Intensive Units, which, from the researchers' point of view, could contribute with relevant information for the validation process of the instrument. They, in turn, appointed other specialists based on the desired profile and previously defined inclusion and exclusion criteria. Thus, the participants of the first round were characterized by the letter "E"; those selected in the second round by the letters "Es"; and the participants of the two rounds, by "E + Es" - succeeded by a numerical sequence.

Table 1 - Characterization of the specialists participating in the study, Santa Maria, Rio Grande do Sul, Brazil, 2019

Specialist	Region	Gen- der	Age	Professional profile	Time since graduation	Educational level	Time of formation
E1 + ES5	South	F	31-40	Assistance	11-15	Specialist	6-10
E2 + ES7	South	F	31-40	Assistance	1-5	· -	-
E3	South	M	51+	Assistance	26+	Specialist	26+
E4 +ES9	South	F	20-30	Assistance	6-10	Specialist	1-5
E5	South	F	31-40	Assistance	11-15	Specialist	6-10
E6	South	F	41-50	Assistance+Teacher	21-25	PhD	1-5
E7	South	F	41-50	Assistance	16-20	Specialist	11-15
E8 + ES6	South	F	41-50	Assistance	11-15	Specialist	6-10
E9	South	F	20-30	Assistance	1-5	Specialist	1-5
E10	South	F	31-40	Assistance	6-10	Master's degree	1-5
E11 + ES11	South	F	31-40	Assistance	6-10	Master's degree	1-5
E12	South	F	41-50	Assistance	26+	Specialist	16-20
ES1	North	M	31-40	Assistance+Teacher	16-20	PhD	1-5
ES2	Northeast	F	51+	Assistance+Teacher	26+	PhD	1-5
ES3	Central-west	: F	31-40	Assistance+Teacher	11-15	Master's degree	6-10
ES4	South	F	41-50	Assistance	16-20	Specialist	11-15
ES8	South	F	31-40	Assistance	11-15	Master's degree	1-5
ES10	South	F	51+	Assistance+Teacher	26+	PhD	16-20
ES12	South	F	41-50	Assistance	16-20	Master's degree	6-10

First round: appearance and content validation

Fourteen specialists were selected to participate in the first round. However, there were two withdrawals without previous contact. Thus, the final sample of this round had 12 specialists. The participants were provided with the initial outline of the Nursing Assessment instrument, as well as a guideline and the Informed Consent Form. This stage was developed over a period of three weeks.

The total number of items evaluated by each specialist was 311. From these, 22 had a CVI <0.75, and were excluded; 48 had a CVI of 0,75 and were maintained, excluded and/or modified, according to the suggestions presented; and the remaining 241 were validated in their original form, as they reached a CVI equal to and/or greater than 0.8.

In *Identification*, all 12 items analyzed were validated with a CVI between 0.83 and 1.0. Based on the experts' suggestions, three items were modified, and one was removed. The experts suggested changes in the item "Age", with the suggestion of E1 "BD or Age". In the item "Telephone number", E9 suggested the inclusion of "the option of more than one responsible person and his contact". Regarding the item "SAME", E12 suggested changing it to "Registration". All suggestions have been incorporated.

In *History*, of the 47 items presented, only 1 was not validated, and 1 obtained a CVI of 0.75. Of the total, 15 received comments and suggestions. Thus, "Birth", "Complications of childbirth" and "Description of admission to the Pediatric ICU (Type of transport, professionals who accompanied and welcomed)" were added. In this dimension, four items were adequate.

In the item related to Basic Human Needs (BHN) - Psychobiological, from the 44 items related to *Neurological Regulation and Perception of Organs and Senses*, only 1 had a CVI of 0.75. The other items were validated, although the experts pointed out some observations. The participants' concern was about the items judged as medical diagnoses, related to Activity and Tonus (hypoactive/normoactive/hyperactive), draws attention, especially regarding the "hyperactive" sub-item. In this case, the item does not refer to the diagnosis of "Attention and Hyperactivity Deficit Disorder", but to the psychomotor exacerbated response related to the environment (25). Also, the ocular evaluation "strabismus" was considered a medical diagnosis. Thus, this item was removed, giving space to the description of "Other pupillary/ocular presentations". In total, four items were excluded in this process.

In the item BHN - Psychobiological, of the 42 items about *Skin Integrity, Thermal and Vascular Regulation*, 39 were validated with a CVI greater than 0,8 and three had a CVI of 0.75, what suggested modifications. One of the suggestions was related to the evaluation of the Edema Intensity, which was represented by "crosses" (one to four) to evaluate the Godet Sign. Only the description field was left. The experts made ten relevant observations, which made it possible to exclude ten items, in addition to the making of three adjustments.

In the item BHN - Psychobiological, of the 46 items about *Oxygenation*, 37 were validated, 1 had a CVI of 0.66, and, thus, was excluded, and the remaining 8 had a CVI of 0.75. The sub-item "Campanula" was modified, due to a CVI of 0.75 and to the suggestions of specialists, opening space for pertinent complements.

The items "aspiration" and "secretion" were also modified, due to their similarity among the ten comments. Under "Invasive Ventilatory Support", the sub-item "parameters" was suppressed at the unanimous suggestion of the specialists.

In the item BHN - Psychobiological, of the 41 *Nutrition* items, 12 were removed, due to a CVI that varied between 0.58 and 0.66. Seven items had a CVI of 0.75, suggesting adjustments, and 22 items were validated in their original form. This dimension received the largest number of comments (12), with suggestions of adjustments, extensions and/or the reorganization of items or titles, as follows: "Restriction or type"; "Acceptance"; "Nutritional Status" and "Abdomen" (subdivided into inspection, auscultation, palpation and percussion). Thus, at the end of this process, 16 items were excluded, 12 have been modified; and the rest, kept in its original form.

In the item BHN - Psychobiological, of the 36 *Elimination* items, only 1 was not validated. Of the total, 18 items had a CVI of 0.75, and 17 were validated in their original form. Based on the experts' suggestions, the items "Urinary and Intestinal Eliminations" had their sub-items changed for "Aspect, changes, and quantity of diuresis or feces", with space for comments. And the sub-item "Genital, perineal, and anal evaluation" was transferred from "Eliminations" to the item "Skin Integrity", with the inclusion of a space for notes. 18 items have been modified according to the experts' comments, and 19 were excluded from the instrument.

In the domain BHN - Psychosocial, item *Safety, Love and Attention*, of 12 items, 7 were not validated due to a CVI that varied between 0.25 and 0.66. The rest of the items received a CVI of 0.75, compatible with the desired result. Seven comments were received, which were incorporated into the study. In "Adequate sanitation conditions", E11 asked "What is adequate?". In the item "Who lives with the child", E9 asked "Add whether the person has siblings and how many". Thus, based on the suggestions, the items "Family condition"; "Adequate sanitation conditions"; "Social vulnerability"; "Who lives with the child"; and "Relationship of the child with a relative" were modified to "Family, housing and sanitation conditions" and "Affective bond with the guardians", with a space for comments. "Person(s) accompanying the patient know the standards and routines of the Pediatric ICU" was added, as suggested by specialist E1.

In the item BHN - Psychospiritual - *Religious and Theological*, there was unanimity in the CVI of 0,75 for its five items. In this item, only comments were obtained, such as: "Do you have spirituality or religious beliefs?" — the Family with religious convictions ("yes", "no", "not verified"). And, in the item Child/Adolescent, the addition of the sub-item "Not applicable".

Second round: validation of clarity, relevance, and comprehensiveness

Based on the experts' comments and adjustments made by the researchers, the Nursing Assessment instrument demanded a new round of evaluation. Thus, it was sent again by e-mail to the specialists of the first round, in order to allow an analysis of its clarity, relevance and comprehensiveness⁽³⁴⁻³⁵⁾. In this stage, a detailed report of the items reviewed was added, excluded, and/ or validated in the previous round.

The specialists considered general aspects related to the instrument and, at the end of this process, all items were considered to have equal and/or higher values of 4 and 5, which correspond to a CVI of 1.0. Thus, there was unanimity regarding the clarity, relevance, and comprehensiveness of the Nursing Assessment instrument. Some comments, however, were made and incorporated into the instrument.

In *Identification*, Es9 pointed out to the need for nursing professionals to pay attention to the identification bracelet. Such information was incorporated into the instrument as a sub-item, due to its importance and adherence to the National and International goals of Patient Safety⁽³⁸⁻³⁹⁾.

In the *History* item, a new chronological order of the sub-items was made in consideration of a comment by Es2, since the sub-item "Exams" had a dubious meaning. In that same item, Es3 requested the inclusion of the type of cradle, for example: *Common cradle; Radiant heat cradle; Bili cradle; Bilitron; Incubator; Bed.* This typology, however, was not used, due to the great variety of possibilities, but it was considered for the creation of a space for comments in "Other relevant data and comments from the nurse". In that same section, Es11 suggested the inclusion of the item "Medications of continuous use", which was included due to its relevance⁽²¹⁾.

In Neurological Regulation and Perception of Organs and Senses, Es3 requested "Add a place to record vital signs, as they provide important information, especially when the autonomic nervous system is affected". Thus, in the History section, a chart covering vital signs was added, to be filled out when the child/adolescent is hospitalized. Es12 suggested the inclusion of "pain intensity" in "Pain scale (FLACC)", which was adapted for Pediatric ICU by another post-graduation student of the Professional Master's degree in Maternal and Child Health⁽⁴⁰⁾.

In the item *Skin Integrity, Thermal and Vascular Regulation*, the specialist Es3 requested the inclusion of a sub-item related to the presence of congenital deformities. This, however, can be described in "Pathologies or previous affections" and, therefore, was not included. Es3 also suggested the inclusion of items related to neonates (aspect of the umbilical stump, umbilical catheter), not present in pediatric users. In addition, he suggested "*Add the date of the change of the fixation dressing*", which was not included, considering that this is an information that should be included in the item *Nursing Records*. In this same item, Es11 suggested "*Add injury risk*". That was classified under "Skin integrity", which can be described in the nursing records space⁽⁴¹⁾.

In Oxygenation, Es2 suggested adding "measured value for variations in breathing (eupneic, dyspneic, tachypneic, bradypneic)", which was accepted. In the item Nutrition, Es1 suggested adjustments related to technical terms, such as "Attention to the term probe; the correct one is catheter (nasogastric/enteral)". Such adjustments were made, and the "Nutritional Status" were changed to "Nutritional Aspects", as instructed by Es2. In "Diet", Es3 suggested the inclusion of the term "suspended", with regards to "ZOF" (Zero oral feeding) or "ZOF/Suspended".

In the *Elimination* item, Es1 suggested adapting some terminologies, such as the use of "Stomas" instead of "Ostomy" and "Catheter" instead of "Probe", which were both included. Regarding the item *Safety, Love and Attention*, Es2 suggested "*Include caregiver behavior (collaborative, permissive, without affection towards the child, etc.*)". This item, however, was already included in "Affective bond with the guardians". Regarding the need for multiprotection assistance (psychological, social assistance, etc.), Es10 mentioned: "*I believe that 100% of families/children and/or adolescents need this assistance*". Thus, the expression "No" (no need) was changed to "Partial".

Regarding the *Religious and Theological* items, Es6 and Es12 recommended to change only the description of belief and/or religion of family members/children/adolescents. Still, regarding the Psychospiritual item, Es10 suggested the replacement of the verb "Presents" by the verb "Manifest" before the words "spirituality or religious belief". Such changes were made. As a result, at the end of these adjustments, extensions and exclusions, the Nursing Assessment instrument was considered validated, as presented below.

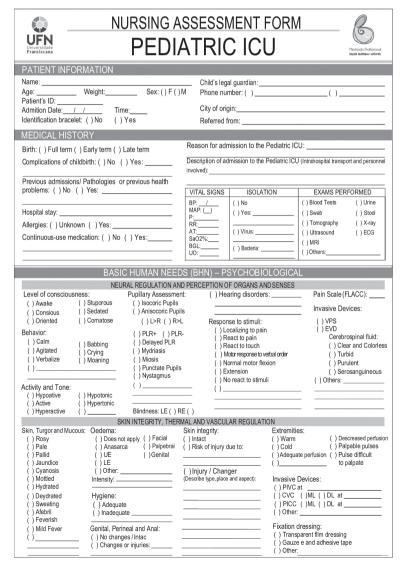


Figure 1- Front page of the validated Nursing Assessment page

Breathing Pattern:	OXYGEN Pulmonary auscultation:	NOITAN	Non Invasivo	Ventilatory Support:					
() Eupneic	() Vesicular murmurs with no adv	ontitious							
1 / 1	sounds	enunous		() No need / Room air () NC O ² L/min					
() Dyspnea () Tachypneic		addaa							
				() Hudson's mask L/min () Venturi mask L/min					
() Bradypnea	()			mask L/min					
() Orthopnea	Aspiration:		()						
() Breathing pauses	() Not () US () Tracheal (Tracl	h / ETT) () CPAP/BIPAP/VNI							
() Apnea			() Nasal p	rongs () Oronasal mask ()					
()Gasping	Exudate aspect:		Inconius Mantil	atani Cirananti					
Retracions and Discomforts:	() Thick () Water () Whitish () Yellow		Invasive Ventil						
() Sternoclavicular joint) Tracheostomy () Room air () Ayre's T-pieceL/min () IMV						
() Intercostal	() Bloody () Green	ish	() Roull all	() Ayres 1-pieceDillili () liviv					
() Subcostal	() Biofilm		() Orotrache	eal intubation					
() Nasal flaring	()			() With cuff () Without cuff					
()	Exudate Amount:			() Upper lip () Tooth					
()	Extudate Amount.								
EATING /	NUTRITION		ELIM	INAÇÕES					
Diet:	Oral cavity:	Urinary:		Drains (describe place and drainage):					
() Oral	() No changes	() Noi	rmal	() Penrose					
() Orogastric/Nasogastric T			Diaper						
() Oroenteral/Nasoenteral Tr	ube		Urinal bottle/ Bedpan						
() PEG Tube		()_							
	Abdomen:								
Restriction or diet type:	() Flat / Normal		nary catheter	() Hemovac drain					
() NPO/Suspended	Scaphoid / Sunken Rounded / Distended		Indwelling catheter						
() Free diet for the age () Formula	() Rounded / Distended	()	Intermittent catheter						
() Breast milk	Auscultation:	A	change and amount	() Blake					
()			-	() DIAKE					
() Enteral Dietml/h () Parenteral Dietml/h	() BS+ () BS-	of urine	:						
()	Palpation:								
()	() Painless () Painful			() Chest					
Acceptance:	() Flaccid () Tense	Renal:		() Onest					
() Does not apply	() Organomegalies		modyalisis						
() No acceptance	()		ritoneal dialysis						
() Little acceptance	\	()	,	Others:					
() Good acceptance		Intestina	d:						
.,	Percussão:	() No	defecation	() Ostomy (type, place, aspect					
Nutritional acpect:	() Dull sound () Tympanic		siological defecation	and effluent aspect):					
() Thin			hages and amount of						
() Nourished	Changes (hemia, scars, etc):	feces:							
() Obese									
()									
BHN - PSYCH	OSOCIAL - SAFETY, LOVE A	ND	BHI	N -PSYCHOSPIRITUAL -					
	ATTENTION			GIOUS AND THEOLOGICAL					
Harrier and the sector and		d ahout the st		pirituality or religious belief:					
Housing condition and sanitat	and routines of the		LAPICOS S						
Family condition (caregivers, siblin		Awaiting guida		y /es How / What:					
Tarrilly Cortollori (caregivers, sibili	igo, granaparonto, otoj.		2 ()	No () No verified					
	Family and/or Child needs assistance:			. ,					
Afficial and the second of the									
The interviewee): () Not Verified / Does not apply									
()									
0	THER RELEVANT DATA AND NURSE'S	REMARKS:		INSTRUMENT APPLIED BY:					
				— I					
				(Name/License)					
CORREA ALINEMEDIANE RA COMES Institut	nent of the Professional Master's Dissertation in Maternal and Child H	lealth: "Implementation	on of Nursing Assessment in a David						

Figure 2 - Verse of the validated Nursing Assessment page

DISCUSSION

The validation of instruments has been increasingly appreciated and requested by health services, in view of the growing need for scientific foundations for the practice of care, especially in the field of nursing/health. Validity is related to whether or not the measurement is congruent with the property being investigated, not to the accuracy of the measurement that describes this property of the object⁽⁴²⁾.

Consequently, the Delphi Technique has been used by many in the process of building and adapting instruments, due to its flexibility, dynamic nature, and credibility in the evaluation process, followed by modifications of the instrument, in order to improve it, until a consensus is reached between the group of experts⁽⁴³⁾.

In this study, the validation process took place in a procedural and participatory manner. The specialists, in general, were receptive to the invitation and, responsibly, returned the instrument within the established deadline. Most of the changes were related to interventions associated with Psychobiological and Psychosocial dimensions/needs. In this process, the fact that the

Psychospiritual dimension obtained unanimous validation, with changes only in terminology, attracted special attention. Based on this observation, there will be an in-depth discussion of issues related to the spiritual dimension of health care, in order to expand the theoretical base among professionals and, as a result, assign equal value to the three dimensions proposed by the theoretician Wanda de Aguiar Horta.

Regarding Psychospiritual needs, few publications were found, although a study published in the 1970s has already demonstrated their real importance in the health care process(44). The study showed, at the time, that when the patient/family is hospitalized, they think more about God and spiritual aspects than about themselves, their business, and/or the physician. In their human condition, they recognize that their treatment and/or cure depends on an intervention from God. In this context, the same study shows that hospitalized patients rarely receive spiritual comfort, even though 92% of them considered spiritual care important and necessary and 79% stated that no one provided it. In short, the work concluded that, in addition to the priest or pastor, the patient wants to receive spiritual comfort from the doctor and the nurse.

Based on this evidence, the question is: Why are nurses so reticent with regards to addressing the psychospiritual needs of patients and families? How to increase and expand the spiritual dimension in Nursing Assessment, and, above all, in the unique and multidimensional Nursing care? Which strategies should be used during formation and assistance, to conceive human beings in their multiple dimensions and not only in their physical and psychological ones?

Unlike religious creeds, spirituality is an inner disposition that makes it possible to encounter

the other and their real needs, or even the possibility of transcending the human condition and reaching a deeper meaning for existence. The relationship with the transcendent promotes more effective bonds of trust between patients and professionals, in addition to greater commitment to treatment (45-47). In this relationship, the Theory of Basic Human Needs, idealized by Wanda Horta, corroborates the assumptions established by the World Health Organization, by emphasizing that health is a state of physical, psychological, social and spiritual well-being, that is, a phenomenon that comprises both human uniqueness and multidimensionality (48).

Human beings, according to the Theory of Basic Human Needs, have their own characteristics, among which are uniqueness, authenticity, and individuality. They are an integral part of the universe, interacting with it and being influenced by it in time and space. Due to this dynamic relations, human beings are subject to changes and unbalances, which generate the needs, which, when not met, may result in discomfort and/or illness⁽⁴⁾. From this perspective, Horta's conceptual model can also be used as a plan for clinical identification, as well as for individualized and

systematized interventions, allowing nurses to prioritize their demand. Since it is adaptable to various specialties, its use is not limited to hospitalized individuals, but encompasses their family and the different contexts and spaces in which nurses work.

Spiritual care emerges, therefore, as an integrative strategy for the expanded and multidimensional understanding of human beings in their biopsychosocial-spiritual dimensions. Currently, much is said and studied about the importance of spirituality for health, but results and/or publications are not very accurate, since spiritual care in health services is still neglected and/or relegated to a secondary level⁽⁴⁹⁾.

From this perspective, the validated Nursing Assessment instrument aims to enhance, equally, the spiritual dimension in the care process, meeting, as a result, the basic human needs of each user and their families. Despite not being felt, nor even perceived as a basic need, the Psychospiritual dimension should be gradually considered and taken under the responsibility of nursing professionals, that is, they should apprehend this concept of health, care, and of human beings in their singular and multidimensional dimensions.

Study limitations

A recognized limitation of this study is the fact that 14 specialists expected to participate in the first round of validation of the instrument did not, coupled with the reticent contribution of the participants regarding the dimension of Psychospiritual needs. In this sense, this study suggests that further studies should be carried out in this area, to apprehend and qualify nursing care as a unique and multidimensional phenomenon.

Contributions to the area of Nursing, Health, or Public Policy

It is shown that NCS and, in particular, Nursing Assessment can contribute for professionals to acquire autonomy, since it uses scientific and theoretical bases that will only be achieved with the systematic application of nursing interventions. The strengthening of nurses' professional identity and visibility, through strategies that autonomously optimize and systematize nursing decision-making, is a second and important contribution that readers will be able to obtain from this study. It can also help to expand the understanding of the spiritual dimension to meet the basic human needs of health users, since this item was discussed in greater depth in this study.

FINAL CONSIDERATIONS

The instrument of Nursing Assessment for the Pediatric Intensive Care Unit, developed and validated by specialists, can be considered relevant and pertinent in terms of content, clarity, scope, and appearance. It will enable the investigation of objective and subjective data, based on a unique and multidimensional perspective of care, and contribute to improve the quality of the Nursing Process, as well as to its professional recognition and appreciation.

In addition to the methodology for the development and validation of the Nursing Assessment instrument, the integration and effective exchange of knowledge and practices among professionals was essential. It was recognized, in this process, that the problems in the practice of care need to be part of academic discussions, just as scientific theories need to contribute to the gradual transformation of practice. The integration and strengthening of these realities will not only lead to better care practices, but also to a commitment to social development.

FUNDING

Study from a Professional Master's degree in Maternal and Child Health, encouraged by NOTICE N°27/2016 and CAPES/COFEN agreement N°30/2016, as a prospective strategy for the implementation and consolidation of Nursing Care Systematization.

REFERENCES

- 1. Bellaguarda MLR, Padilha MI, Peres MAA, Lygia P. The nursing profession: its status: that is the question. Rev Enferm UERJ. 2016;24(2):1–5. doi: 10.12957/reuerj.2016.8591
- 2. Pires D. Nursing as discipline, profession, and labour. Rev Bras Enferm. 2009;62(5):739-44. doi: 10.1590/S0034-71672009000500015
- 3. Salvador PTCO, Alves KYA, Ribeiro JLS, Martins CCF, Santos VEP, Tourinho FSV. The systematization of nursing care as instrument of empowerment: integrative review. Rev Enferm UFPE. 2015;9(5):7947-56. doi: 10.5205/1981-8963-v9i5a10545p7947-7956-2015
- 4. Horta WA. Processo de Enfermagem. São Paulo: Editora Pedagógica e Universitária LTDA; 1979. 1-101 p.
- 5. Santos WN. Systematization of nursing care: the historical context, the process and obstacles to deployment. Prim Health Care Res Dev. 2014;5(2):153–8. doi: 10.14295/jmphc.v5i2.210
- 6. Conselho Federal de Enfermagem COFEN. Resolução No358/2009[Internet]. 2009 [cited 2018 Jun 29]. Available from: http://www.cofen.gov. br/resoluo-cofen-3582009_4384.html
- 7. Miranda L, Silveira M, Chianca T, Vaz R. Systematization of nursing care in primary health care: a report of an experience. Rev Enferm UFPE [Internet]. 2013 [cited 2018 Jun 29]. Available from: http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/view/3117
- 8. Tannure MC, Pinheiro AM. SAE Sistematização da Assistência de Enfermagem: guia prático. 2nd ed. Rio de Janeiro: Guanabara Koogan; 2010.
- 9. Gomes RM, Teixeira LS, Santos MCQ, Sales ZN, Linhares EF, Santos KA. Systematization of nursing care: revisiting the brazilian literature. Rev Multidiscip Psicol. 2018;12:995–1012. doi: 10.14295/idonline.v12i40.1167

- 10. Santos DMA, Sousa FGM, Paiva MVS, Santos AT. Development and implementation of a nursing patient history in Pediatric Intensive Care. Acta Paul Enferm. 2016;29(2):136–45. doi: 10.1590/1982-0194201600020
- 11. Cruz DALM, Guedes ES, Santos MA, Sousa RMC, Turrini RNT, Maia MM, et al. Nursing process documentation: rationale and methods of analytical study. Rev Bras Enferm. 2016;69(1):197–204. doi: 10.1590/0034-7167.2016690126i
- 12. Pinheiro AB, Almeida FÉR, Nascimento KP, Ferreira PJO. Registro da assistência de enfermagem: visão dos gestores de enfermagem de duas unidades hospitalares do sertão central cearense. In: Encontro de Extensão, Docência e Iniciação Científica (EEDIC) [Internet]. 2019 [cited 2019 Jun 09]; p. 255. Available from: http://hdl.handle.net/123456789/600
- 13. Santos N, Veiga P, Andrade R. Importance of history and physical examination for the care of nurses. Rev Bras Enferm. 2011;64(2):355–8. doi: 10.1590/S0034-71672011000200021
- 14. Ministério da Saúde (BR). Resolução 466/2012: Normas para pesquisa envolvendo seres humanos[Internet]. Conselho Nacional de Saúde. Brasília, DF. 2012 [cited 2019 Jun 09]. Available from: http://bvsms.saude.gov.br/bvs/saudelegis/cns/2013/res0466_12_12_2012.html
- 15. Alcântara MR, Silva DG, Freiberger MF, Coelho MPPM. Teorias de Enfermagem: a importância para a implementação da Sistematização da Assistência de Enfermagem. Rev Científica FAEMA. 2011;2(2):115–32. doi: 10.31072/rcf.v2i2.99
- Cianciarullo IT. Teoria das necessidades humanas básicas: um marco indelével na enfermagem brasileira. Rev Esc Enferm USP. 1987;21(nº especial):100–7. doi: 10.1590/0080-62341987021esp00100
- 17. Bordinhão RC, Almeida MA. Instrument ent to collect data for critical patients based on the theory of basic human needs. Rev Gaúch Enferm. 2017;33(2):125–31. doi: 10.1590/S1983-14472012000200018
- 18. Gaiva MAM, Monteschio CC, Moreira MS, Salge AM. Child growth and development assessment in nursing consultation. Av Enferm. 2018;36(1):9–21. doi: 10.15446/av.enferm.v36n1.62150
- 19. Ramalho Neto JM, Fontes WD, Nóbrega MML. Instrument to collect nursing data in General Intensive Care Unit. Rev Bras Enferm. 2015;66(4):535–42. doi: 10.1590/S0034-71672013000400011
- 20. Silva KL, Nóbrega MML. Collection of data for children of 0 5 years: construction and validation of an instrument. Online Braz J Nurs. 2006;3(2006):1–7. doi: 10.5935/1676-4285.2006704
- 21. Valadares GV, Leite JL, Silva MM, Silva ÍR, Silva TP. Nursing care management for children hospitalized with chronic conditions. Rev Bras Enferm. 2015;68(4):641–8. doi: 10.1590/0034-7167.2015680410i
- 22. Braga LC, Sousa FGM, Santos DMA, Santos MH. Demands of nursing attention at a pediatric intensive care therapy unit: a qualitative research. Arq Ciênc Saúde. 2015;22(4):52–7. doi: 10.17696/2318-3691.22.4.2015.103
- 23. Silva RS, Pereira Á, Ribeiro AG, Marinho CMS, Carvalho IS, Ribeiro R. Preparation of a critical patient data collection instrument: nursing record. Rev Enferm UERJ [Internet]. 2012 [cited 2017 Nov 7];20(2):267–73. Available from: https://www.e-publicacoes.uerj.br/index.php/enfermagemuerj/article/view/1552
- 24. Silva CMC, Teixeira ER. Physical examination and its integralization in the nursing process in the light of complexity. Esc Anna Nery. 2012;15(4):723–9. doi: 10.1590/S1414-81452011000400010
- 25. Vasconcelos JMB, Pereira MA, Oliveira EF. The child physical exam: a guide for the nurse examen. Rev Bras Enferm. 1999;52(4):529–38. doi: 10.1590/50034-71671999000400006
- Santos DFV, Silva LDG, Reis LM, Tacla MTGM, Ferrari RAP. Application of abdellah's theory in a nursing process in pediatrics: an experience report. Ciênc Cuid Saúde. 2011;10(2):353–8. doi: 10.4025/cienccuidsaude.v10i2.15687
- 27. Costa SP, Paz AA, Souza EN. Evaluation of nursing records on the physical examination. Rev Gaúch Enferm. 2010;31(1):62–9. doi: 10.1590/S1983-14472010000100009
- 28. Ministério da Saúde (BR). Caderno de Atenção Básica Saúde da Criança: Crescimento e desenvolvimento[Internet]. Brasília DF; 2012 [cited 2019 Jun 09]. 272 p. Available from: http://bvsms.saude.gov.br/bvs/publicacoes/saude_crianca_crescimento_desenvolvimento.pdf
- 29. Alexandre NMC, Coluci MZO. Content validity in the development and adaptation processes of measurement instruments. Ciênc Saúde Colet. 2011;16(7):3061-8. doi: 10.1590/S1413-81232011000800006
- 30. Coluci MZO, Alexandre NMC, Milani D. Construction of measurement instruments in the area of health. Ciênc Saúde Colet. 2015;20(3):925–36. doi: 10.1590/1413-81232015203.04332013
- 31. Revorêdo LS, Maia RS, Torres GV, Maia EMC. The use of delphi's technique in health: an integrative review of brazilian studies. Arq Ciênc Saúde. 2015;22(2):16–21. doi: 10.17696/2318-3691.22.2.2015.136
- 32. Rozados HBF. O uso da técnica Delphi como alternativa metodológica para a área da Ciência da Informação. Questão. 2015;21(3):64–86. doi: 10.19132/1808-5245213.64-86
- 33. Vinuto J. A amostragem em bola de neve na pesquisa qualitativa: um debate em aberto. Temáticas. 2014;22(44):203–20. doi: 10.20396/temáticas.v22i44.10977
- 34. Crestani AH, Moraes AB, Souza APR. Content validation: clarity/relevance, reliability and internal consistency of enunciative signs of language acquisition. CoDAS. 2017;29(4):1–6. doi: 10.1590/2317-1782/201720160180
- 35. Cucolo DF, Perroca MG. Instrument to assess the nursing care product: development and content validation. Rev Latino-Am Enfermagem. 2015;23(4):642–50. doi: 10.1590/0104-1169.0448.2599

- 36. Lima-Rodríguez JS, Lima-Serrano M, Jiménez-Picón N, Domínguez-Sánchez I. Validação de conteúdo da escala de auto-percepção do estado da saúde familiar utilizando a técnica Delphi. Rev Latino-Am Enfermagem. 2013;21(2):[09 telas]. doi: 10.1590/S0104-11692013000200017
- 37. Dupim SLM, Ribeiro LDCC, Alves WM. Building and validation of instrument about Health Only System Management. Rev Eletr Gestão Saúde. 2016;7(3):1191–9. doi: 10.18673/gs.v7i3.21989
- 38. Oliveira RM, Leitão IMTA, Silva LMS, Figueiredo SV, Sampaio RL, Gondim MM. Strategies for promoting patient safety: from the identification of the risks to the evidence-based practices. Esc Anna Nery. 2014;18(1):122–9. doi: 10.5935/1414-8145.20140018
- 39. Bernal SCZ, Raimondi DC, Oliveira JLC, Inoe KC, Matsuda LM. Patient identification practices in a pediatric intensive care unit. Cogitare Enferm. 2018;23(3). doi: 10.5380/ce.v23i3.55390
- 40. Santini AM, Costenaro RGS. Confortando e cuidando na unidade de terapia intensiva pediátrica: implementação de escala para avaliação da dor[Dissertação] [Internet]. Santa Maria RS, Brasil. 2017 [cited 2019 Jun 09]. p.3. Available from: http://www.universidadefranciscana.edu. br/Site/Arquivo/BaixarArquivo/12956
- 41. Vocci MC, Toso LAR, Fontes CMB. Application of the braden q scale at a pediatric intensive care unit. Rev Enferm UFPE. 2017;11(1):165–72. doi: 10.5205/reuol.9978-88449-6-1101201720
- 42. Pasquali Luiz. Psicometria. Rev Esc Enferm USP. 2009;43(spe):992-9. doi: 10.1590/S0080-62342009000500002
- 43. Alpirez LA. Desenvolvimento e validação de um instrumento de avaliação do recém-nascido na primeira semana de saúde integral[Dissertação][Internet]. Amazonas; 2014[cited 2019 Jun 09]. Available from: https://tede.ufam.edu.br/bitstream/tede/4557/2/Disserta%c3%a7%c3%a3o%20-%20Luana%20Amaral%20Alpirez.pdf
- 44. Gelain I. Necessidade psíco espiritual do paciente. Rev Bras Enferm. 1974;27(3):280-289. doi: 10.1590/0034-716719740003000006
- 45. Santos DMA, Sousa FGM, Paiva MVS, Santos AT, Pinheiro JMS. The nursing based on evidence supporting the construction of the history of nursing: a bibliographic search. Ciênc Cuid Saúde. 2016;15(3):561. doi: 10.4025/cienccuidsaude.v15i3.26357
- 46. Ubaldo I, Matos E, Salum NC. NANDA-I Nursing Diagnoses based on Wanda Horta's theory. Cogitare Enferm. 2016;20(4):687-94. doi: http://dx.doi.org/10.5380/ce.v20i4.40468
- 47. Rangel RF, Backes DS, Ilha S, Zamberlan C, Siqueira HCH, Costenaro RGS. Training for integral care: perception of Nursing teachers and students. Rev Pesqui Cuid Fundam. 2017;9(2):488–94. doi: 10.9789/2175-5361.2017.v9i2.488-494
- 48. Organização Mundial da Saúde (OMS). Constituição da Organização Mundial da Saúde (OMS/WHO). [Internet]; 1946[cited 2019 Jun 09]. Available from: www.onuportugal.pt
- 49. Barros ÉB, Reppetto MA. Opinião da equipe de enfermagem frente à necessidade espiritual de pacientes internados em um hospital universitário. Arq Med Hosp Fac Cienc Med Santa Casa São Paulo [Internet]. 2011 [cited 2020 Jun 5];56(2):57-60. Available from: http://arquivosmedicos.fcmsantacasasp.edu.br/index.php/AMSCSP/article/download/312/328