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INSTRUMENT TO EVALUATE THE PATIENT CANDIDATE TO VALVED PERIPHERALLY INSERTED CENTRAL VENOUS CATHETER

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ABSTRACT
This study proposes to develop and validate the content of an Evaluate Instrument of patients who are candidates to place a valved Peripherally Inserted Central Catheter (PICC), which will discuss the adequate conditions to its long-term use. This is a quanti-qualitative research, with exploratory and descriptive approaches. The construction of the Instrument was supported by searches on LILACS and PubMed databases, as well as books and training manuals. To validate the content of the instrument, the Delphi technique was used, which is subdivided in three stages and with the participation of 11 capacitated nurses, excluding those professionals who were capacitated less than a year ago, or those who did not use the mentioned technique for more than one year. The research took place from March to November 2014. All dimensions included in the initial instrument were approved, with at least 72.7% for a positive score, and two dimensions achieved a 100% approval by the specialists. The instrument was adjusted as suggested in clarity, classification of patient's profile, and organization of questions. The final version of the Instrument enabled better evaluation and standardization of the variables that interfere in the insertion and maintenance of the valved PICC in the long-run.

Keywords: Peripheral Catheter. Central Venous Catheter. Validation Studies. Nursing. Pediatric Nursing.

INTRODUCTION

The use of central catheter in patient care is becoming more and more necessary, as the drug therapeutics commonly used today present vesicant and irritating characteristics into the peripheral venous network. Therefore, the central device permits better hemodilution, thus guaranteeing a safe care in hospital, outpatient and/or home environments[1].

Today there are many types of available central catheters. The peripherally inserted central catheter (PICC) presents as a differential its insertion through a peripheral vein, then moving to a central vein. The use of PICC is being spread through Brazil since the decade of 1990, in neonatal, pediatric, and oncologic units, and more recently, in homecare[1,2].

Its expansion is related to the reduction of the infection rate when compared to other central catheters; the reduction of the use of anesthetics; the proceedings taking place on the bed; and the low number of complications during the puncture in central region — pneumothorax, hemothorax, lesion in the brachial plexus, and gas embolism[1-3].

The experience with the PICC at the Porto Alegre Clinical Hospital (HCPA, in Portuguese) started in 1999, but only in 2008 the institution started to use the valved PICC (which blocks reflux and does not require continuous infusion), thus having the use of the catheter more widely accepted in the hospital. From this moment on, the training of the nursing teams, the awareness of the assisting and multidisciplinary medical teams, and the creation of a clinical common agenda in order to maintain the use of the catheter were essential to the success of the program[4-5].

In the catheter insertion manuals, the items of patient evaluation are related to the clinical indication and the quality of venous network. However, the continuous use of PICC for an extended period may not be suitable to all types of patients if certain pre-requisites are not matched. The evaluation of the general conditions of the patient and his family has been

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done traditionally by the nurse, empirically, during the critical processes in order to select patients as candidates (or not) for a PICC procedure[1,5].

Therefore, this research aimed to develop and validate the content of an evaluation instrument of candidate patients to the valved PICC procedures, mentioning the adequate and necessary conditions for a long-turn usage. The knowledge produced by the study will subsidize the evaluation of patients who are candidates to place a PICC.

METHODOLOGY

This is a methodological research, with a qualitative and quantitative approach, in which the Delphi technique was used to establish the validation of the content of the instrument designed to evaluate the patients that are candidates to place a valved PICC for a considerable time. This validation technique was generated from the consensus of professionals who were well-trained and actively engaged in the area, which for this study are considered specialists[6]. Data collection occurred in the period from March to November 2014, and it was guided by the ethical principals that rule the researches with human beings[7], being approved by the Committee of Ethics in Research of the HCPA, under protocol #14-0338.

The study interviewed 11 nurses of the HCPA, who are capacitated to insert the PICC. The professionals that were excluded acquired their capacitation less than a year ago, or did not perform the insertion procedure in the last year. They were chosen intentionally, through indication, and renamed with a letter "S", followed by a sequential number. Each specialist was classified by the amount of years each one was capacitated to insert PICC, and if they had some or no experiences in outpatient maintenance of PICC.

The construction of the Instrument was established by searches on the literature regarding PICC, indicatives and maintenance out of the hospital environment, in the Latin American and Caribbean Literature in Health Sciences (LILACS, in Portuguese) and in the US National Library of Medicine (PubMed). The articles were selected by the descriptors of DeCS (Descriptor in Health Sciences of the Virtual Library of Health) and MeSH (Medical Subject Heading of the PubMed). Considering the local conditions, there was the reading of books by Brazilian authors that mentioned the introduction of PICC.

In the end, an initial instrument was produced, composed by six large dimensions: "age"; "diagnose of long-term treatment"; "venous network"; "family environment"; "individual conditions of the patient"; and "physical environment". The sub-dimensions inserted in these large dimensions evaluated the outpatient, environmental, and behavioral conditions of the patient.

Based on the described classical model, the Delphi technique was applied in three turns, in which the consensus was publicized to the participants at the end of each turn, and then, continuing to the next turn[6,8].

On the first stage of the research the specialists were asked to evaluate the relevance of the dimensions and the sub-dimensions present in the initial instrument, providing suggestions and elements to include or exclude. Because it was an exploratory stage, which goal was to evaluate the relevance of the dimensions, the participants could also suggest new ones.

During the second stage, specialists were asked to analyze the whole instrument, specially approving its content and clarity in its wording, using a Likert's five-points scale, being two favorable, two unfavorable, and one neutral grade (1- strongly approve to 5 strongly disapprove), expecting to reduce the bias from the evaluator. Each sub-dimension was classified in three categories: incapacitating, potentially incapacitating; and adequate. This classification occurred to simplify the order of the characteristics that may interfere or are adequate to patient's care with a long-run PICC.

The third stage provide the specialists the initial instruments with the suggestions to change the contents as described for them in the previous moment. Most of the suggestions discussed in the third stage were taken in, which generated the instrument built of the pertinent dimensions to evaluate the patient with PICC.

RESULTS AND DISCUSSION

All participants are nurses and are capacitated for at least two years, and five of them have the qualification for seven years. Seven of them demonstrate experience in outpatient maintenance of PICC.

During the initial stage, the dimensions "venous network" and "physical environment" were approved by all specialists. The dimensions "diagnose of long-term treatment"; "family environment", and "individual conditions of the patient" presented two sub-dimensions in which one of the specialists considered that their contents were not relevant. In the dimension "age", only one specialist considered its content as not relevant. Therefore, it was possible to observe there was a considerable agreement among the specialists, and all sub-dimensions were kept, and the ones that presented opinions of non relevance by some of the subjects involved were studied deeply in the following stage to understand the reason for the non agreement.

During the analysis stage, it was possible to observe the discriminated approval of each sub-dimension of the instrument, according to the Likert scale, represented on Table 1.

Chart 1. Approval of the sub-dimensions by specialists, according to Likert's scale

Sub-dimension	Strong approval		Approval		Indefinite		Disapproval		Strong	
	n	%	n	%	n	%	n	%	n	%
Age	7	63.6	3	27.3	1	9.1	0	0	0	0
Diagnose	9	81.8	1	9.1	1	9.1	0	0	0	0
Stage of treatment	6	54.5	3	27.3	2	18.2	0	0	0	0
Venous network	8	72.7	0	0	1	9.1	2	18.2	0	0
Educational conditions	7	63.6	3	27.3	1	9.1	0	0	0	0
Adherence to oriented care	8	72.7	2	18.2	0	0	1	9.1	0	0
Family support	5	45.5	5	45.5	0	0	0	0	1	9.1
Life style	5	45.5	5	45.5	0	0	0	0	1	9.1
Acceptance of PICC insertion	7	63.6	2	18.2	2	18.2	0	0	0	0
Understanding of care to PICC	6	54.5	4	36.4	1	9.1	0	0	0	0
Acceptance of self-image	5	45.5	4	36.4	2	18.2	0	0	0	0
Physical environment	9	81.8	2	18.2	0	0	0	0	0	0
Distance to health care service	6	54.5	5	45.5	0	0	0	0	0	0

According to specialists, the terminology used in the classification of the sub-dimensions (Incapacitating, Partially Incapacitating, and Adequate) is nor appropriated, a counter-indication to PICC cannot be defined by a negative factor alone. They also point out that, when identifying an issue, a plan for educational care can be placed until the patient is discharged from the hospital, as mentioned in the discourse to follow:

> It is delicate to say that a child is unable to have a PICC; it is important to check all resources and possibilities. I don't think it was adequate; in fact, the language was too strong. (S3).

There were suggestions and contributions in every sub-dimension presented. In the sub-dimension "age", two participants included in the instrument the minimum age of three years old to maintain an outpatient PICC. Both say the patient until the age of three are not cautious enough with the PICC, which will affect extra-hospital maintenance of the procedure.

In a study performed with children using PICC there are no higher incidence of complications due to age[9]. However, invasive proceedings, such as the venous puncture, can be considered a punishment or aggression by the child, despite that each experience is unique for

both the patient and the accompanying family member, as well as to the caring professional[10].

Hence it is necessary that the evaluation of the nurse at the moment of hospitalization and of discharge will allow the patient to keep the PICC out of the hospital environment, not taking into consideration the age as the main limiting element for the outpatient use of the procedure.

> It is necessary to observe the level of maturity of the child. (S10)

> For the PICC with a necessity of outpatient maintenance, age is extremely important. Children younger than three years old generate less home maintenance". (S9)

Under the dimension "diagnose", one specialist was uncertain due to the inclusion of partially incapacitating diagnoses (which present a higher rate of complications, such as infections and thrombosis)[1,11-13]. However, with the development of the insertion technique, there is a decrease of the number of complications[1,14], which later there was an agreement to remove the partially incapacitating diagnoses.

The dimension "stage of the treatment" was approved by 81.8% of the specialists, and one of the specialists mentioned the following:

> As earlier the evaluation for the need of PICC, better preserved the venous network will be, which will facilitate the proceeding. (S10)

On the other hand, it is possible the high rate of undecided responses when compared to other dimensions (18.2%). This uncertainty is represented in the following discourse:

> I believe that the treatment stage can partially impede the use of the venous network, but not the indication for a PICC. (S8)

Therefore, the evaluation of the sub-dimension "stage of the treatment" was changed in the third moment of this research to "period of treatment", in order to contemplate all the areas that use the PICC.

In the evaluation of the sub-dimension "venous network", the disapproval of 18.9% and the indecision rate of 9.1% were the highest values found in this study. This rate was clear in the following comment:

> The item venous network is relevant, but the way it is classified is no adequate. For example: what if the evaluation is done with an echography? (S1)

The dimension "venous network" is the main element to evaluate the candidate to a PICC. Today, the ultrasound equipment is used to evaluate the venous network of the patient. Its use is indicated to patients in higher risk: obesity, edema, fragile peripheral venous network, severe neutropenia, and under risk of thrombosis[1,14].

During the design of the initial instrument, this technique was not used in the investigated Institution. However, progressively, the echography equipment and the micro-introduction technique are more commonly used in patients at the HCPA. This fact reflected directly in the approval rate of this dimension, being the lowest found in this study. Because of that, it was necessary to review its presentation, as suggested by S1.

The psychobiological and the accentuated psychosocial changes are mentioned as complicating factors to receive information required to maintain the PICC, increase the rate of complications with the catheter(1). Due to this issue, the evaluation of the educational conditions, related to the understanding of the orientation of care seems more relevant in the evaluation of the patient who will have an extended use of PICC[1,9].

The "adherence to care" is the main element to measure the understandings in how to care for the catheter, and its content was approved by 90.9% of the specialists. The 9.1% disapproval rate is explained by the discourse of a specialist, who demonstrated a desire to evaluate this sub-dimension together with the educational conditions. Hence, in order to make the distinction between the categories clearer, the terminology "adherence to care" was substituted for "understanding the orientation", as agreed by the specialists.

Under the sub-dimension "family structure", it was emphasized that not always all family members are involved in care, but in fact, the closest relatives:

> Even under adverse situations, families that engage in care are able to keep up with the maintenance of the PICC. (S10)

> I think the issue is not family structure, but family and social support. (S3)

Many times, in situations of family vulnerability, if the patient is capable to self-

manage the cares to the catheter or if there is at least one family member to take care, the adequate maintenance is guaranteed[1,9]. As a consequence, the nomenclature of this sub-dimension was changed to "family support".

The individual conditions of the patient, among which the level of activity, must be considered because of the risk of accidental traction of the PICC[1,9]. Then, it was suggested the inclusion of the evaluation of the collaboration of the patient and conditions of psychomotor agitation.

The comprehension of the risks, of care, and the acceptance of the patient are fundamental to a prolonged maintenance of PICC[1,12,15-16], as it is reinforced in the following discourse:

> The patient that does not accept the invasive proceeding must have his autonomy preserved as seen in the rights of the patient (S8)

Another element that must be evaluated is the understanding of care, the weekly maintenance, and the risk of accidental traction. These specific characteristics of PICC must be guided to the patient and his caregiver, checking their comprehension and agreement before the proceeding takes place[1,3,12,15]. The following discourse corroborates with the findings in the review of literature.

> The comprehension of the necessity of maintenance is necessary for the viability of the catheter, risk of potential infection, and obstruction of the catheter (S8)

For all the reasons exposed previously, it is necessary to point out that the patient must agree with the procedure, in order to preserve the bond between this individual and the assisting professional[15].

The dimension "physical environmental" contemplates the sub-dimensions "home conditions" and "distance to health care service" was approved by 100% of the specialists, being kept as designed in the initial instrument. The discourse of S8 illustrates this condition:

> Unhealthy home conditions do not allow a proper preservation of the PICC, being a precondition to infections (S8)

However, during the evaluation there were doubts regarding the moment in which the physical environment must be evaluated, as summarized in the following discourse:

> This item will be evaluated in the patients that will leave the hospital with a PICC? Only for the ones in outpatient care? (S9)

Under the sub-dimension "distance to health care service", which evaluates the physical distance and the challenges to reach the health care network, the opinions are represented in the following discourse:

> The patient that faces obstacles to access the health care units creates a barrier in maintaining the catheter, as he will not have weekly access to curatives and salinization. (S8)

However, according to specialists, situations such as the counter-reference to maintain the PICC can allow the maintenance of the catheter away from the referential health care service provider of the patient, as on the words of S10:

> The distance can create a barrier, but it should not be an excluding element to the insertion of the PICC. What about the work of the basic health care network? (S10)

After the analysis and the changes required, the third moment of the study returned the questions to the specialists. New ponderations and suggestions arose in order to qualify the instrument, and the majority of the suggestions was taken in, thus resulting in the final instrument.

The first item discussed was the substitution of the terminology of classification. It was debated that isolated risk situations would not be incapacitating to the insertion of PICC, as the procedure can occur together with educational actions or network articulations.

This fact was also discussed in a study which compared the results of PICC before and after the implementation of certain nursing care practices. Among the changes there is an evaluation of self-care capacity and the existence of a differentiated care to people with reduced self-care capacity. After the tasks performed, the results in PICC insertion improved and the rate of complications felt drastically[17].

In this sense, in the present study the terminology was altered in a way to permit the identification of risk factors that must be taken care more intensively. Thus, the terminologies were changed to "high risk factor", "moderate risk factor", and "absence of risk factors".

Another aspect discussed englobes the application of the instrument and which categories were going to be re-evaluated. In this sense, it was suggested that the instrument was applied in the moment of hospitalization and during the first signs of discharge: considering the dimensions "physical environment", "family environment", and "individual conditions of the patient".

There was also an agreement that the sub-dimension "diagnose" was going to be kept, however with some changes, as the exclusion of the item "partially incapacitating illnesses", because it was limited to oncological and hematological diagnoses, and the goal was to include all specialties. The terminology of the sub-dimension "stage of treatment" was switched to "period of treatment", in order to measure the time of use of the catheter, and to amplify its use, according to the discussion previously stated.

Under the investigated institution, due to the implementation of the micro-introduction technique during this study, it was included a sub-dimension that contemplates from the evaluation of venous network through the use of ultrasound. In this sense, the final version of the instrument presents two sub-dimensions: techniques of direct puncture (traditional technique) and the micro-introduction puncture.

The suggestion to alter the sub-dimension "educational conditions" to "comprehension of orientations" was taken in, making the evaluation clearer and differentiating the following sub-dimension, which evaluates the adherence to care practices, as designed in the initial instrument.

The sub-dimension "family structure" was substituted for "family support", including its corresponding categories, as debated previously.

The sub-dimension "life style" was created in order to evaluate the profile of activities of the patient, with one single suggestion by the specialists to substitute the terminology "level of activity" to "collaborative". However, as the discussion ensued, the intense level of activity even in collaborative patients can indicate risk of traction or accidental impact. Because of that, the collaboration of the patient was included in this sub-dimension, without the exclusion of the evaluation of the level of activity.

The largest part of the patients that have the possibility of a PICC in an environment out of the hospital can avoid multiple punctures and new invasive proceedings for every hospitalization[9,11,13,15]. The outpatient maintenance of PICC is described in a study performed with pediatric oncological patients under prolonged drug therapy (28 to 167 days). In these cases, the infection and the occlusion are the most present complications[15]. Hence, it is necessary to evaluate the conditions of the physical environment in which the patient is found, or in other words, patient's home conditions, the available health care network, and the distance between the residence and the closest health care unit, in order to minimize the risks of infection, and to facilitate the support in cases of inter-occurrence.

In articles produced in Brazil and around the world there are reports of the use of catheters up to 575 days, and in some of these cases supported by outpatient maintenance[13-18]. In the institution studied, the maximum period of usage was 944 days[5]. In studies of maintenance of PICC there were no reports of combined actions inside the basic health care network, as well as there was no analysis of the relationship between the distance of health care service and the maintenance of PICC.

The counter-reference permits a shorter distance to be covered by the patient as soon there is a mutual collaboration among the health care service providers. However, this should not be a mandatory item in the evaluation of the patient. For the register of maintenance, S1 mentions the use of a booklet to control the care for the PICC:

> A booklet is a very important control, specially when there is the counter-reference, so the partnership flows better. (S1)

After the analysis of all dimensions, the third moment was considered finished with the changes in the instrument and publication of the final version (Image 1) for the specialists to verify it.

Dimension	Sub-dimension	1st evaluation	Re-evaluation
Age	_____ years and _____ months		----
Diagnose with continuous treatment	**Diagnose:** _____ **Date of the diagnose:**		----
	Period of treatment (forecast): _____		----
Venous network	**Direct Puncture Technique:** **1.HighRF:** Puncture not visible or no palpation/near to artery/history of thrombosis **2.ModerateRF:** Single puncture, visible and/or palpable **3.AbsenceRF:** Multiplepunctures, visible and/or palpable		----
	Guided Puncture Technique: **1.HighRF:** Singlepuncture/barely visible or large caliber/history of thrombosis **2.ModerateRF:** Singlepuncture/medium caliber/history of thrombosis **3.AbsentRF:** Multiple punctures,large and isolated caliber		----
Family environ-ment	**Understanding of orientations** **1.HighRF:** Caregiverrequires constant reinforcements from orientations **2.ModerateRF:**Caregiverfinds difficult to understand some guidelines **3.AbsentRF:**Caregiver understands and performs all orientations		
	Adherence to care guidelines **1.HighRF:**Caregiver frequently does no adhere to care/precarious hygiene **2.ModerateRF:**Caregiver occasionally does not adhere to care/occasionally personal hygiene is not adequate **3.AbsentRF:**Caregiver adheres to all care/adequate hygiene		
	Family support **1.HighRF:** Dysfunctional family who does not provide patient's care **2.ModerateRF:**Family with internal conflicts, but with minimal support to patient's care **3.AbsentRF:** Functional family with adequate support to patient's care		
Patient individual conditions	**Life style (activity…)** **1.HighRF:** Patient is hyperactive/psychomotor unrest/little collaborative and requires constant reinforcement and care in the venous access **2.ModerateRF:** Patient is active/little collaborative and requires constant reinforcement and care in the venous access **3.AbsentRF:** Patient is active/collaborative, being able to take care of the venous access.		
	Acceptance of PICC insertion **1.HighRF:** Patient resistant to any invasive proceeding and/or PICC **2.ModerateRF:**Patient partially accepts the proceeding, but fearful towards PICC **3.AbsentRF:**Patient understands the need for a PICC and accepts the proceedings		
	Understanding of care procedures with the venous access (weekly maintenance) **1.HighRF:** Does not understand the procedures **2.ModerateRF:**Understands the procedures, but occasionally resistant **3.AbsentRF:** Understands the procedures and performs them accordingly		
	Acceptance of self-image **1.HighRF:** Patient cannot picture himself with a PICC in and/or out hospital **2.ModerateRF:** Patient accepts the PICC in and/or out hospital, but is uncomfortable with his own self-image **3.AbsentRF:** Patient does not refers to any discomfort using PICC in and/or out hospital		
Physical environ-ment	**Home conditions** **1.HighRF:**Patient lives in frequent unhealthy conditions/environment **2.ModerateRF:**Patient lives in rarely unhealthy conditions/environment **3.AbsentRF:**Patient lives in adequate conditions, in clean and ventilated environments		
	Distance of health care service **1.HighRF:** Lives far from the reference center and has issues to access the unit **2.ModerateRF:** Lives far, but has easy access to the reference center **3.AbsentRF:**Lives near to the reference center for the referred service		

HighRF: High Risk Factor; **ModerateRF:** ModerateRisk Factor; **AbsentRF:** Absence of Risk Factor

Figura 1- Instrumento Final após validação de Conteúdo

FINAL CONSIDERATIONS

The construction of the instrument of evaluation of the patient that is a candidate to the valved PICC used data from different sources and is part of the evaluation indicted in the literature, as the evaluation of the dimensions by the nurses in the research field.

It is considered that the use of the Delphi technique supported the validation of the final instrument, achieving an approval rate to all sub-dimensions presented in the initial version. When conducing the validation of the content of the instrument, it was possible to observe that there were significant adjustments regarding its clarity of the categories of classification, its importance, and organization of the sub-dimensions to be used in the evaluation of the patient.

The final version of the instrument was wider to all the areas that use the PICC, subsidizing better evaluation of the patients that can benefit with the insertion of the PICC. However, it is possible to point out as limitations of the study the need of of other researches that deal with the different criteria to indicate PICC, more specifically the minimum requirements for outpatient maintenance of the catheter and the counter-reference of its maintenance in primary care.

The validated product in the end of this research will be tested in patients who are candidates for PICC, in order to improve the instrument, using it as the basis to analyze if there are correlations among the sub-dimensions and the use of the catheter.

INSTRUMENTO PARA AVALIAÇÃO DO PACIENTE CANDIDATO AO CATETER VENOSO CENTRAL DE INSERÇÃO PERIFÉRICA VALVULADO

RESUMO

Neste estudo propôs-se desenvolver e validar o conteúdo de um Instrumento de avaliação dos pacientes candidatos à colocação do Cateter Central de Inserção Periférica (CCIP) valvulado, abordando as condições adequadas para seu uso prolongado. Trata-se de uma pesquisa quanti-qualitativa, exploratória e descritiva. A construção do Instrumento ocorreu mediante busca as bases de dados LILACS e PubMed, livros e manuais de capacitação. Para a validação do conteúdo do instrumento foi utilizada a técnica Delphi, em três etapas, com a participação de 11enfermeiras capacitadas, sendo excluídas as que possuíam a capacitação há menos de um ano ou que não realizavam a técnica há pelo menos um ano. A pesquisa ocorreu no período de março a novembro de 2014. Todas as dimensões incluídas no instrumento inicial obtiveram aprovação de, pelo menos, 72,7%, e duas dimensões atingiram aprovação de 100% dos especialistas. O instrumento foi ajustado quanto à clareza, classificação do perfil do paciente e organização das questões. A versão final do Instrumento possibilitou melhor avaliação e padronização de todas as variáveis que interferem na inserção e manutenção no longo prazo do CCIP valvulado.

Palavras-chave: Cateterismo periférico. Cateterismo Venoso Central. Estudos de validação. Enfermagem. Enfermagem Pediátrica.

INSTRUMENTO PARA LA EVALUACIÓN DEL PACIENTE CANDIDATO AL CATÉTER VENOSO CENTRAL DE INSERCIÓN PERIFÉRICA VALVULADO

RESUMEN

El objetivo del estudio fue desarrollar y validar el contenido de un Instrumento de evaluación de los pacientes candidatos a la colocación de Catéter Central de Inserción Periférica (PICC) valvulado, frente a las condiciones adecuadas al uso prolongado. Se trata de una investigación cuanti-cualitativa, exploratoria y descriptiva. La construcción del Instrumento se llevó a cabo a través de la búsqueda en las bases de datos LILACS y PubMed, libros y manuales de capacitación. Para la validez de contenido del instrumento se utilizó la técnica Delphi, en tres etapas, con la participación de 11 enfermeras capacitadas, siendo excluidas del estudio las que poseían la capacitación a menos de un año o que no realizaban la técnica durante al menos un año. La investigación se llevó a cabo entre marzo y noviembre de 2014. Todas las dimensiones incluidas en el instrumento inicial obtuvieron la aprobación de, al menos, el 72,7%, y dos dimensiones alcanzaron la aprobación de 100% de los expertos. El instrumento fue ajustado en cuanto a la claridad, clasificación del perfil del paciente y organización de las preguntas. La versión final del Instrumento permitió una mejor evaluación y estandarización de todas las variables que interfieren en la inserción y en el mantenimiento a largo plazo del PICC valvulado.

Palabras clave: Cateterismo periférico. Cateterismo Venoso Central. Estudios de validación. Enfermería. Enfermería Pediátrica.

REFERENCES

1. Baiocco GG. O cateter central de inserção periférica – CCIP na prática de enfermagem. 1ª ed. Porto Alegre: Moriá; 2013.

2. Johann DA, Mingorance P, DeLazzari LSM, Pedrolo E, Oliveira GLR, Danski MTR. Perfil epidemiológico de neonatos que utilizam cateter central de inserção periférica. Rev Cienc Cuid Saude [online]. 2014; 13(2):255-61. [citado 2016 maio 20]. Disponível em: http://eduem.uem.br/ojs/index.php/CiencCuidSaude/article/view/20822 .

3. Westergaard B, Classen, Walther-Larsen S. Peripherally inserted central catheters in infants and children – indications, techniques, complications and clinical recommendations. Acta Anaesthesiol. [online]. 2013; 57:278–87. [citado 2015 jan 1]. Disponível em: http://www.ncbi.nlm.nih.gov/pubmed/23252685.

4. Predebon, CM, Sanseverino, SA, Hoffmann, VK, Ludwig, MCF, Ribeiro, NR. Trajetória do PICC na pediatria de um hospital escola da região sul. In: Anais do V Congresso Brasileiro de Enfermagem Pediátrica e Neonatal; 2013 out 29-1; Gramado: Sul do Brasil; 2013. p. 119-20.

5. Ludwig MF, Hoffmann VK, Sanseverino AS, Issi HB, Ribeiro NR, Silva TS. Cateter central de inserção periférica valvulado: manutenção ambulatorial em Pacientes onco-hematológicos. In: Anais do V Congresso Brasileiro de Enfermagem Pediátrica e Neonatal; 2013 29 out, Gramado: Sul do Brasil; 2013. p. 70-1.

6. Faro AM. Técnica Delphi na validação das intervenções de enfermagem. Rev Esc Enferm USP [online]. 1997; 31:259-73. [citado 2013 out 1]. Disponível em: http://www.scielo.br/scielo.php?pid=S0104-16920100001000018&script=sci_arttext&tlng=pt.

7. Conselho Nacional de Saúde. Resolução nº 466, de 12 de dezembro de 2012. Diretrizes e normas regulamentadoras de pesquisa envolvendo seres humanos. Diário Oficial da União [da] República Federativa do Brasil; 2013. Disponível em: http://conselho.saude.gov.br/ultimas_noticias/2013/06_jun_14_publicada_resolucao.html

8. Polit DF, Beck CT. Fundamentos de pesquisa de enfermagem: avaliação de evidências para a prática de enfermagem. 7a ed. Porto Alegre: Artmed; 2011.

9. Hockenberry MJ.Wilson, D. Wong: fundamentos de enfermagem pediátrica. 9ª ed. Rio de Janeiro: Elsevier; 2014.

10. Tacla MTGM, Lima RAG. Aspectos culturais do cuidado à criança com dor: vivência de enfermeiras pediatras. Rev Cienc Cuid Saude [online]. 2012; 11sup: 71-7. [citado 2016 maio 23]. Disponível em: file:///C:/Users/User/Downloads/17054-69450-1-PB.pdf

11. Bergami CMC, Monjardim MAC, Macedo CR. Utilização do cateter venoso central de inserção periférica (PICC) em oncologia pediátrica. Rev Min Enferm. [online]; 2012 out/dez; 16(4): 487-93. [citado 2014 out 1]. Disponível em: http://reme.org.br/artigo/detalhes/559

12. Martins FM, Carvalho EC de. A percepção do paciente referente a ser portador de um cateter de longa permanência. Rev Esc Enferm USP [online]. 2008; 42(3):526-31. [citado out 16]. Disponível em: http://www.scielo.br/scielo.php?pid=S0080-62342008000300016&script=sci_arttext

13. Matsuzaki A, Suminoe A, Koga Y, Hatano M, Hattori S, Hara T. Long-term use of peripherally inserted central venous catheters for cancer chemotherapy in children. Support Care Cancer [online]. 2006 Feb. 14(2):153-60. [citado 2014 out 11]. Disponível em: http://www.ncbi.nlm.nih.gov/pubmed/15999262.

14. Li J, Fan YY, Xin MZ, Yan J, Hu W, Huang WH, Lin XL, Qin HY. A randomised, controlled trial comparing the long-term effects of peripherally inserted central catheter placement in chemotherapy patients using B-mode ultrasound with modified Seldinger technique versus blind puncture. Eur J Oncol Nurs [online]. 2014 Feb; 18(1):94-103.

15. Schuller DM, Maciel MR, Ichikawa H. Cateter venoso central de inserção periférica em pacientes com acompanhamento ambulatorial: estudo de caso. Rev Nursing [online]. 2005; 80(8):43-5.

16. Cabral PFA, Oliveira BE de, Anders JC, Souza AIJ de, Rocha PK. Percepção da criança e do adolescente em estar dependente de tecnologia: aspectos fundamentais para o cuidado de enfermagem. Texto Contexto - Enferm. [online]. 2013 jun; 22(2): 343-51. [citado 2016 maio 20]. Disponível em: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0104-07072013000200010&lng=en.

17. Leung TK, Lee CM, Tai CJ, Liang YL, Lin CC. A retrospective study on the long-term placement of peripherally inserted central catheters and the importance of nursing care and education. Cancer Nurs. [online]. 2011. [citado 2015 jan 1]; 34(1):25-30. Disponível em: http://www.ncbi.nlm.nih.gov/pubmed/20885304

18. Hatakeyama N, Hori T, Yamamoto M, Mizue N, Inazawa N, Igarashi K, Tsutsumi H, Suzuki N. An evaluation of peripherally inserted central venous catheters for children with cancer requiring long-term venous access. Int J Hematol. [online]. 2011 out. [citado 2016 maio 21]; 94(4):372-7. Disponível em: http://link.springer.com/article/10.1007/s12185-011-0928-2

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