





CONTENT VALIDATION OF ICNP® SUBSET ENUNCIATES FOR PEOPLE WITH VASCULOGENIC ULCERS

VALIDAÇÃO DE CONTEÚDO DOS ENUNCIADOS DO SUBCONJUNTO CIPE® PARA PESSOAS COM ÚLCERAS VASCULOGÊNICAS

VALIDACIÓN DEL CONTENIDO DE LOS ENUNCIADOS DEL SUBCONJUNTO CIPE® PARA PERSONAS CON ÚLCERAS VASCULARES

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ABSTRACT

Objective: to validate the content of the terminological subset enunciates of the International Classification of Nursing Practices (ICNP®) for people with vasculogenic ulcers, based on Roy's adaptation theory. **Method:** this is a methodological study, referring to the validation phase of the third stage of the Brazilian method for the development of a terminological subset of the ICNP®. Six diagnoses and 59 results were analyzed by six selected specialists, distributed in Roy's adaptive modes, and 424 Nursing interventions, organized in groups related to the diagnosis. The percentage of agreement was calculated and the enunciates with a percentage equal to or greater than 80% were validated. **Results:** ten of the diagnoses obtained 100% agreement in which eight presented their results and interventions with 100% agreement. Of the 46 diagnoses with 86% agreement, eight had their results and interventions with 100% agreement. The diagnoses with a 50% agreement were not validated: the risk of gastrointestinal system function, impaired; sleep, impaired; and hypocalcemia. **Conclusion:** 56 diagnoses, 99 results, and 411 Nursing interventions were validated. The physiological mode was the most represented due to the characteristic of the empirical basis used. It will be necessary to expand the list with enunciates regarding interdependence and role.

Keywords: Standardized Nursing Terminology; Nursing Diagnosis; Validation Study; Wounds and Injuries; Venous Insufficiency.

RESUMO

Objetivo: validar o conteúdo dos enunciados do subconjunto terminológico da Classificação Internacional das Práticas de Enfermagem (CIPE®) para pessoas com úlceras vasculogênicas, baseado na teoria da adaptação de Roy. **Método:** trata-se de recorte de estudo metodológico, referente à fase de validação da terceira etapa do método brasileiro para desenvolvimento de subconjunto terminológico da CIPE®. Foram analisados, por seis especialistas selecionados, 59 diagnósticos e 103 resultados, distribuídos nos modos adaptativos de Roy, e 424 intervenções de Enfermagem, organizadas em grupos relacionados ao diagnóstico. Foi calculado o percentual de concordância e foram validados os enunciados com percentual igual ou superior a 80%. **Resultados:** dos diagnósticos, 10 obtiveram 100% de concordância, dos quais oito apresentaram seus resultados e intervenções com 100% de concordância. Dos 46 diagnósticos com 86% de concordância, oito tiveram seus resultados e intervenções com 100% de concordância. Não foram validados os diagnósticos com percentual de concordância de 50%, a saber: risco de função do sistema gastrointestinal, prejudicado; sono, prejudicado; e hipocalcemia. **Conclusão:** foram validados 56 diagnósticos, 99 resultados e 411 intervenções de Enfermagem. O modo fisiológico foi o mais representado, devido à característica da base empírica utilizada. Será necessário ampliar a lista com enunciados referentes à interdependência e função de papel.

Palavras-chave: Terminologia Padronizada em Enfermagem; Diagnóstico de Enfermagem; Estudo de Validação; Ferimentos e Lesões; Insuficiência Venosa.

RESUMEN

Objetivo: validar el contenido de los enunciados del subconjunto terminológico de la Clasificación Internacional de Prácticas de Enfermería (CIPE®) para personas con úlceras vasculares, basado en la teoría de adaptación de Roy. **Método:** se trata de un estudio metodológico, referido a la fase de validación de la tercera etapa del método brasileño para el desarrollo de un subconjunto terminológico de la CIPE®. Seis diagnósticos y 59 resultados fueron analizados por seis especialistas seleccionados, distribuidos en modos adaptativos de Roy, y 424 intervenciones de enfermería, organizadas en grupos relacionados con el diagnóstico. Se calculó el porcentaje de acuerdo y se validaron los enunciados con un porcentaje igual o superior al 80%. **Resultados:** de los diagnósticos, 10 obtuvieron un 100% de concordancia, de los cuales ocho presentaron sus resultados e intervenciones con un 100% de concordancia. De los 46 diagnósticos con 86% de acuerdo, ocho tuvieron sus resultados e intervenciones con un 100% de acuerdo. Los diagnósticos con un porcentaje de acuerdo del 50% no fueron validados, a saber: riesgo de deterioro de la función del sistema gastrointestinal; sueño, alterado; e hipocalcemia. **Conclusión:** se validaron 56 diagnósticos, 99 resultados y 411 intervenciones de enfermería. El modo fisiológico fue el más representado, debido a la característica de la base empírica utilizada. Será necesario ampliar la lista con declaraciones sobre interdependencia y función de rol.

Palabras clave: Terminología Normalizada de Enfermería; Diagnóstico de Enfermería; Estudio de Validación; Heridas y Traumatismos; Insuficiencia Venosa.

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INTRODUCTION

The terminological subsets of the International Classification for Nursing Practice (ICNP®) aggregate Nursing diagnoses (NDs), outcomes (NOs), and interventions (NIs) aimed at a specific patient or a health priority.¹ They are considered to care technologies that assist clinical reasoning and decision making, promote autonomy and visibility of nurses' actions, relate theory to practice, and enable the recording of assistance provided in information systems.

Among the terminological subsets approved by the International Council of Nurses, a subset about the care of people with vasculogenic ulcers is not identified. Thus, we believe that this type of patient can benefit from the proposal of a subset.

Vasculogenic ulcers are complex wounds, with arterial, venous, or neuropathic typology, usually initiated by trauma whose main etiologies are chronic venous insufficiency and valve abnormalities.^{2,3} Although there is no exact estimate, in this millennium, 3% of the population may be affected in Brazil, considering it a public health problem decreasing the quality of life, involvement of emotional aspects, chronicity, recurrence, and cost of treatment.^{2,3}

Due to the chronicity of the vasculogenic ulcer, the nurse must consider aspects related to the adaptation to the health-disease process, a fact that corroborates the choice of Roy's theoretical model to provide a theoretical basis for the subset. For Roy, the person is an adaptive and holistic human being and his model considers the existence of inputs - as stimuli that provoke responses and control processes - as coping mechanisms.⁴ Such a model can contribute to the identification of the needs of the individual, based on characteristics related to the adaptive modes present in the theory: physiological, self-concept, role function, and interdependence. Consequently, more assertive care planning is possible.

Therefore, we justify the relevance of this study, aimed to validate the content of the ICNP® terminological subset enunciations for people with vasculogenic ulcers, based on Roy's adaptation theory.

METHOD

For the development of terminology subsets of ICNP®, the Brazilian method provides three prerequisites (justification of importance; choice of the patient; choice of theoretical model) and four steps (identification of relevant terms; cross-mapping of terms with

ICNP®; construction of enunciates; and structuring of the subset).⁵ For the clipping presented in this article, we considered the results of the first and second stages as an empirical basis, highlighting and discussing the results related to the content validation phase that is included in the step of the construction of the enunciates.

This is part of a methodological study. The matrix research was approved by the Research Ethics Committee of the *Pontifícia Universidade Católica do Paraná*, under Opinion number 1,595,683.

The empirical basis used to construct and validate the enunciates of NEs, NRs and NIs constitutes a "bank of terms" with 742 terms, called the source document. We extracted the terms by a computational tool, 6 from a corpus of 27 scientific articles selected through an integrative review in the Virtual Health Library (*Biblioteca Virtual em Saúde - BVS*). The automated mapping⁷ with ICNP® 2017 was supplemented manually, based on ISO 12300:2016.⁸ Thus, the source document was composed of 353 terms with direct equivalence to ICNP®; 135 terms with indirect equivalence with ICNP® per ideal lexical unit, reduction to its radical or orthographic synonyms; 77 terms equivalent to more comprehensive ICNP® terms; 100 terms equivalent to more restricted ICNP® terms; and 77 terms not included in ICNP®.

The construction of the enunciates was carried out following ISO 18104:2014⁹ and the ICNP® seven-axis model. One of the researchers elaborated it, a second researcher checked it, and the disagreements were resolved by consensus. To allow interoperability with ICNP®, MappICNP⁷ mapped all NDs and correlated with the exact classification codes or by the parent concept, in the hierarchy. The set of enunciates was organized according to the adaptive modes: physiological, self-concept, role function, and interdependence from Roy's theory of adaptation.

For validation, we recruited and scored expert nurses who were authors of articles related to vasculogenic ulcers according to the following criteria: title of expert in stomatherapy, master or doctor in Nursing or related area (three points); experience with the Nursing process (three points); current clinical practice, minimum of one year, in the care of people with vasculogenic ulcers, which may be in teaching or assistance (one point); a published article on the topic (one point); published summary and participation in events related to the theme or the Nursing process (one point). We excluded those with experience in child care and those directly or indirectly linked to the matrix research. We invited six experts with the highest scores to participate.

When there was no answer, we invited the next highest scoring expert. Also, those who accepted the invitation were asked to indicate another one that met the same scoring criteria.

Through an online instrument (Qualtrics Research Suite) we carried out the collection organized into three question structures: with NDs enunciates; with NRs enunciates and with the set of enunciates NIE. The answer options were “Yes” and “no”. If the answer was negative, the expert could suggest the inclusion of a new enunciate. The “mandatory answer” function was enabled, a criterion that was established due to the need to complete the instrument completely.¹⁰ The instrument underwent a pilot test and the answers were counted by the percentage of agreement of each statement of ND and NR, followed by the percentage of the set of NIs, obtained by dividing the number of participants who agreed by the total number of participants, multiplied by 100.¹¹ The enunciates that obtained a degree of agreement greater than or equal to 80% were considered validated. Non-validated enunciates were discarded.

RESULTS

We prepared 59 NDs and 103 NRs, distributed in Roy's adaptive modes, and 424 NIs. Of these, 56 diagnoses (93.22%), 99 results (96.11%) and 411 interventions (96.93%) were validated as shown in Table 1.

Among the diagnoses, results, and validated interventions, we highlight those that obtained 100% agreement among the experts: a) five groups related to the physiological mode - impaired skin integrity; ischemic pain; wound pain; peripheral edema and exudate; b) two groups in the self-concept mode - willingness (or readiness) to adapt to the state of health and willingness (or readiness) for coping, effective; c) one related to the role function mode - socialization, impaired.

For eight diagnoses that obtained 83% agreement, there is a validation of results and interventions with 100% agreement: able to perform self-care; risk of maceration of the wound margin; arterial ulcer; skills learning, impaired; health knowledge, ineffective; low self-esteem; anxiety; and willingness (or readiness) to accept health status.

Three diagnoses and respective results and interventions whose agreement percentage (AP) was less than 80% (risk of gastrointestinal system function, impaired; sleep, impaired; and hypocalcemia), all belonging to the physiological mode, were not validated.

DISCUSSION

Regarding the groups that obtained 100% agreement in the physiological mode, we can infer that the issue of skin integrity is explicit in the attributes of the definition of the term “vasculogenic ulcer” Therefore, it does not generate shock. It is a natural phenomenon in Nursing actions, and the ND “skin integrity, impaired” is widely researched by nurses.^{12,13} Regarding pain phenomena, people with vasculogenic ulcers have pain as a result of tissue aggression, ischemic, hypoxia, infection, inflammation, or adherence to coverings.¹⁴ In a systematic review¹⁵ we observed that pain is the predominant subject and referred to as the worst symptom and cause of a lot of suffering, causing profound implications for the person, affecting sleep, mobility, and daily activities.

Peripheral edema is often associated with pain and chronic venous insufficiency, for which control measures must be used since it impairs blood flow, delaying the healing process, as it interferes with tissue oxygenation and nutrition.^{16,17} The exudate was a phenomenon detected in 79.4% of people evaluated in field research that also identified it as a clinical factor that influences the quality of life.¹⁸ The exudation is a problem due to proteases that destroy the tissue and directly contribute to the increase of the wound,¹⁹ it is important to assess the exudate, as it helps in the identification of underlying problems, such as infection, patient satisfaction, and selection of therapy.¹⁸ The high exudation from infection in the wound can cause maceration at the edge of the lesion and delayed healing.²⁰

In the groups that obtained 100% agreement in the self-concept mode, the lack of adaptation to the treatment contributes to the chronicity of the wounds, which causes degradation of the quality of life.²¹ A social and family support network and the Positive self-concept contributes directly to positive NDs, such as validated ones, being prevalent phenomena in the characteristics evidenced in these patients. HEIs should be directed to strengthen the adaptive process of the person and the family. Roy's theory offers subsidies for such a direction, with recognition of the affected needs, implementing actions to contribute to the adaptation to the new condition of life.

As for the group that obtained 100% agreement in the role function mode, a study carried out with women with venous ulcers reported a deficit of self-care related to sociability. Such deficit was significant in the lives of the participants since the ulcer causes discomfort and

Table1 - Percentage of agreement of the NDs enunciates (with ICNP® code), NRs and NIs, according to blocks of the physiological, self-concept, role function, and interdependence modes, of Roy's adaptation theory

ENUNCIATE		AP
Physiological mode		
Oxygenation		
ND	Tobacco abuse (10022247)	83%
NR	Tobacco abuse, absent; tobacco abuse, decreased	83%
NI	Auxiliar na identificação de mecanismos de enfrentamento ao tabaco; encaminhar a pessoa a uma rede de apoio para dividir experiências e dificuldades da ausência de tabaco; esclarecer à pessoa sobre o impacto do abuso de tabaco na úlcera vasculogênica; estimular a participação em programas com as ferramentas adequadas para ausência do tabaco. To assist in the identification of mechanisms to fight tobacco; to refer the person to a support network to share experiences and difficulties in the absence of tobacco; to clarify to the person about the impact of tobacco abuse on vasculogenic ulcers; to stimulate the participation in programs with the right tools for the absence of tobacco.	100%
ND	Peripheral tissue perfusion, impaired (10044239)	83%
NR	Peripheral tissue perfusion, effective; peripheral tissue perfusion, improved	83%
NI	To assess the tingling in the extremities; to evaluate tissue perfusion; to refer to doppler; to perform the ankle-arm index examination; to show and assist in the practice of a passive range of motion exercises at frequent intervals; to monitor pulses regularly; to do the capillary filling test; to keep extremities warm (hands and feet); to monitor tissue perfusion; to observe the color of the skin; to advise not to raise lower limbs (LL); to check the sensitivity (painful, hot and cold) of the lower limbs (LL) and compare them; to check the lower limb (LL) temperature; to check pulses in the lower limbs (dorsal, anterior tibialis, fibular and medial plantar)	83%
ND	Gas exchange, impaired (10001177)	100%
NR	Gas exchange, effective	83%
NI	To assess breathing; to refer to physiotherapy; to perform respiratory auscultation; to identify triggering and aggravating factors for gas exchange; to guide breathing exercises; to suppress tobacco use	83%
Nutrition		
ND	Nutritional intake, impaired (10023009)	83%
NR	Nutritional intake, effective; nutritional intake, improved	83%
NI	To refer to a nutritionist; to encourage a high protein diet; to manage nutrition; to investigate nutritional preferences; to guide nutrient intake to meet metabolic needs; to guide water intake; to check daily eating habits	83%
ND	Bodyweight problem (10027290)	83%
NR	Bodyweight, adequate	83%
NI	To follow the guidelines and prescribed care; to assess the need for protein supplement; to refer to a nutritionist; to encourage the use of the food pyramid; to perform waist and neck circumference measurements; to investigate the possible causes of low weight; to investigate the possible causes of obesity; to investigate eating habits; to monitor laboratory tests; to monitor body weight; to advise on water intake; to guide the participation in body weight control groups; to guide a complete and healthy diet; to promote measures that favor nutritional balance; to check body mass index	83%
ND	Overweight (10027300)	83%
NR	Bodyweight, adequate; body weight, decreased	83%
NI	To follow the guidelines and prescribed care; to refer to a nutritionist; to encourage the use of the food pyramid, to follow the food group; to perform waist and neck circumference measurements; to investigate possible causes of overweight; to investigate eating habits; to monitor laboratory tests; to monitor body weight; to guide a protein-rich diet; to guide physical exercises; to guide water intake; to guide measures that favor nutritional balance; to guide participation in weight control groups; to guide a complete and healthy diet; to check body mass index	83%
ND	Tolerance to diet (10036370)	83%
NR	Tolerance to diet, preserved	83%
NI	To clarify the person about the impact of diet on wound healing; to monitor food intake; to record aspects of intestinal elimination	83%
ND	Diet intolerance	83%
NR	Diet intolerance, decreased; diet tolerance	83%
NI	To observe signs of intolerance; to advise that intolerance is a non-toxic response to the ingestion of certain foods; to advise that food intolerance is the body's response to eating certain foods	83%

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Activity and rest		
ND	Able to Perform Self-Care (parent concept: Ability to Perform Care – 10025640)	83%
NR	Able to perform self-care, preserved	100%
NI	To guide the person to perform self-care; to guide the seriousness of self-care; to guide his independence through self-care; to reinforce guidelines on self-care for the wound and perilesional skin	100%
ND	Joint contracture (10010975)	83%
NR	Joint contracture, absent; joint contracture, decreased	83%
NI	To apply hot compresses to the contracted region; to refer to physiotherapy; to stimulate stretching due to atrophy and shortening of muscle fibers caused by lack of joint movement; to avoid maintaining the same position for a long time; to avoid uncomfortable postures; to avoid stress and anxiety situations; to massage the region of the contracture; to guide the performance of physical activity due to the difficulty of movement; to guide hot bath; to guide flexion and extension exercises; to guide the use of devices due to ankle joint immobility; to guide body stretching practices	100%
ND	Hypoactivity(10009466)	83%
NR	Activity, improved; hypoactivity, absent	83%
NI	To encourage the participation in recreational and leisure activities; to explain to family members the need for recreational activities at home; to identify the need for mobility; to guide participation in groups with recreational and leisure activities; to guide physical activity; to guide exercises, avoiding muscle stiffness; to check the history of activities and hobbies	83%
ND	Insomnia (10010330)	83%
NR	Insomnia, absent; insomnia, decreased; sleep, adequate	83%
NI	To leave the room without light; to refer to alternative therapies; to teach relaxation techniques; to establish a routine for nighttime rest; to avoid stimulating drinks at night; to investigate environmental factors that hinder sleep; to guide physical activity; to guide recreational and leisure activities during the day to relax at night; to guide to a peaceful and calm environment at night; to record the sleep pattern and the number of hours slept; to check the need for sleep	83%
ND	Gaitingand/orwalking, impaired(10001046)	83%
NR	Gaiting and/or walking, effective; gaiting and/or walking, improved	83%
NI	To assist the person to walk at regular intervals; to assist in the promotion of gait; to assess the clinical condition that contributes to the difficulty of walking; to assess the person's progress in walking; to refer to physiotherapy; to stimulate ankle movement; to encourage active/passive exercises in the lower limbs; to identify the need to use protection and safety devices for walking; to instruct the person and the family members about security measures for the person; to instructthe use of a prosthetic device; to guide the removal of objects that favor the risk of falls; to advise on the importance of walking; to record the level of ability to walk; to supervise gaiting	83%
ND	Wheelchair mobility, impaired (10001363)	83%
NR	Wheelchair mobility	83%
NI	To assist in mobility activities; to assist the adaptation with alternative ways of solving day-to-day problems; to assist the wheelchair user, if necessary; to assist the learning and adaptation process; to raise the lower limbs, if venous ulcer; to perform daily hygiene to maintain skin health; to stretch; to massage the legs and feet with moisturizers; to guide the correct way to use the chair; to guide periodic maintenance of wheelchairs; to guide the companion about activities in the wheelchair; to guide the use of comfortable clothes; to guide family members to an environment with necessary accessories so that they can carry out their daily tasks, without the need for assistance; to guide to level the floors and install access ramps; to stay at the same level to talk to the person; to promote physical mobility	83%
ND	Ability to move (10012108)	83%
NR	Physical mobility	100%
NI	To assist the adaptation with alternative forms facilitating the ability to move; to assist in physical mobility; to assist the process of learning and adapting to the ability to move; to refer to a physiotherapy service; to instruct lower limb flexion and extension exercises; to instruct walks; to wear comfortable clothes	83%
ND	Risk of falling (10015122)	83%
NR	Risk of falling, absent; risk of falling, decreased	83%
NI	To assist the person in walking; to evaluate vitamin D; to refer to health services in case of falling; to avoid walking on slippery floors; to obtain data on walking in bright environments; to offer a safe environment for walking; to guide the family at home about the risk of falling; to guide the installation of security and protection devices at home; to guide exercises and walks; to guide the use of shoes and slippers with non-slip soles; to guide the use of non-slip mats	83%

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ND	Risk of fracture (10008210)	83%
NR	Risk of fracture, absent; risk of fracture, decreased	83%
NI	To monitor laboratory test results; to refer for osteoporosis investigation; to avoid alcohol abuse; to identify the cause of hypocalcemia; to identify bone spicules in the wound bed; to guide food rich in calcium, such as milk, cheese, spinach, and broccoli; to guide walks in the sun; to advise on the risk of falls; to guide on the risk of fractures	83%
ND	Drowsiness (10040141)	83%
NR	Sleep, adequate; drowsiness, absent; drowsiness, decreased	83%
NI	To assess the level of drowsiness; to sleep 7 to 9 hours a night; to establish a regular time to sleep and wake up; to guide recreational and leisure activities during the day; to provide sleep and rest; to perform the physical activity; to rest 15 minutes after lunch	83%
Protection		
ND	Ability to Perform Wound Care (parent concept: Ability to Perform Wound Care – 10025640)	83%
NR	Ability to perform wound care, effective	83%
NI	To guide the person about wound care, cleaning, coverage, dressing change routines	83%
ND	Wound (10021178)	83%
NR	Wound, absent; wound, diminished	83%
NI	To apply dressing with good absorption in the drainage of secretions; to assess wound healing; to assess psychosocial response to wound instruction; to collaborate with an interprofessional team in wound care; to know the person's history; to control humidity of the wound bed; to take care of the wound margins; to debride according to need; to favor exudate drainage; to moisturize healthy skin; to monitor wound healing; to observe signs of pain; to watch for signs of inflammation; to obtain knowledge data on wound healing; to obtain data about the wound; to provide the opportunity to protect the wound against contamination and infection; to guide the protection of the wound and/or dressing at bath time; to guide care after cure; to advise on wound care; to advise on changing wound coverage; to prevent infection; to prevent recurrence after healing; to protect the granulation tissue; to clean the wound; to perform perilesional skin care; to guard the edges of the wound; to dry the perilesional region; to use a coverage that provides moisture and healing; to check factors that delay healing; to check for odor; to check for possible allergies to the products used in the treatment of the wound	100%
ND	Inflammation (10029927)	83%
NR	Inflammation, absent; inflammation, decreased	83%
NI	To guide the care of perilesional skin; to advise on the frequency of coverage change to avoid injury to the perilesional skin; to advise on complications of perilesional skin; to verify the need for a protective dressing; to check the amount of exudate in the wound	83%
ND	Skin integrity, impaired (10001290)	100%
NR	Skin integrity improved	100%
NI	To apply adequate coverage to the type of wound; to assess sensitivity with the use of anesthesiometer; to compare and record changes in the wound; to maintain aseptic technique during the dressing; to measure wound and note; to monitor color, temperature, and edema; to guide liquid intake; to guide the person's positioning, avoiding tension on the wound; to guide person and family about signs and symptoms of an infection; to change the dressing as exudate	100%
ND	Tissue integrity, impaired (10001080)	83%
NR	Tissue integrity, effective	83%
NI	To avoid hot baths; to be exposed to the sun at predetermined times; to keep the skin intact hydrated; to guide water intake; to protect underlying tissue from physical abrasion; to perform skin inspection daily with the aid of a mirror; to dry the legs without friction, after the bath; to use moisturizing oil on the skin, after removing excess water from the bath; to check for stains and flaking in the lower limbs	83%
ND	Dry skin (10047073)	83%
NR	Adequate skin hydration; skin hydration, improved	83%
NI	To moisturize healthy skin; to advise family members on the application of moisturizers; to guide liquid intake	83%
ND	Pruritus (10010934)	83%
NR	Pruritus, absent; pruritus, decreased	83%
NI	To administer prescribed topical medication; to apply a cold compress to relieve irritation; to assess the cause of the pruritus; to keep nails short and clean; to advise not to scratch the skin; to guide skin hydration	83%
ND	Risk of infection (10015133)	100%

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NR	Risk of infection, decreased	83%
NI	To evaluate clinical signs of local infection, such as flushing, heat, pain, edema, fever, odor, purulent exudate, deepening of the wound, presence of devitalized and necrotic tissue; to perform manual debridement with the aid of appropriate instruments; early identification of infectious microorganisms to eliminate the source of infection; to remove devitalized tissue and exudate from the wound bed; to check the need for antibiotic therapy; to check the need for a protective dressing; to check the amount of exudate in the wound; to check the condition of the skin around the wound; to check the healing process, which may be compromised	83%
ND	Risk of impaired skin integrity (10012917)	83%
NR	Skin integrity, preserved; risk of skin integrity, decreased	83%
NI	To guide perilesional skincare; to guide the frequency of dressing change; to guide the use of creams for the perilesional region; to use a clean and soft perilesional area for drying the skin; to check for possible allergies to the products used in the treatment of the wound	83%
ND	Risk of wound margin maceration (parent concept: maceration – 10011493)	83%
NR	Risk of maceration of the wound margin, absent; risk of maceration of the wound margin, decreased	100%
NE	To assess the humidity between the wound and the wound cover (dressing); to manage the recommended permanence of the wound cover (dressing); to inspect the wound margins; to record the condition of the wound margin; to change wound coverage according to the amount of exudate; to check for excess exudate	100%
ND	Arterial ulcer (10029700)	83%
NR	Arterial ulcer, absent; arterial ulcer, decreased	100%
NI	To monitor test results; to evaluate the skin color in the lower limbs; to assess pain with a pain scale; to define the primary coverage aiming at tissue recovery; to let the limb rest below the body line; to refer to the Angiology service; to investigate chemical dependencies; to measure, by manual doppler, the ankle-arm pressure index on both legs; to observe the absence of hair on feet; to guide physical activity; to guide the person to avoid trauma to the legs and feet; to guide water intake; to record ulcer location, size, tissue impairment, depth, tissue color, wound bed, margins, exudate characteristics, odor, and edema; to check the need for wound debridement; to check the temperature of the limb with the other; to check the capillary filling; to check the pulse in the region with the aid of doppler; to check signs of protection, defense and characteristics of how pain is understood	100%
Feelings		
ND	Ischemic pain (10010896)	100%
NR	Ischemic pain, absent; ischemic pain, decreased	100%
NI	To administer pain medication; to evaluate pulses in lower limbs; to assess response to medication with pain; to collaborate with a pain expert; to collaborate in the pain management plan	100%
ND	Wound pain (10021243)	100%
NR	Wound pain, absent; wound pain, decreased	100%
NI	To identify the person's attitude towards pain; to implement a behavior guide for pain; to monitor pain; to obtain data on pain; to guide family about pain control; to guide about pain	100%
Fluids and electrolytes		
ND	Peripheral edema (10027482)	100%
NR	Peripheral edema, absent; peripheral edema, decreased	100%
NI	To evaluate edema; to evaluate signs of infection; to assess signs of inflammation; to raise LL; to refer to the angiology service; to keep LL elevated while sleeping (elevate bed feet 30° to 45°), if venous ulcer; to keep LL hydrated; to obtain data on edema; to guide short walks; to guide the use of elastocompression; to perform ankle flexion and extension movements	100%
ND	Exudate, present (parent concept: secretion – 10017635)	100%
NR	Exudate, absent; exudate, decreased	100%
NI	To control the amount of exudate; to determine wound coverage; to change dressing according to the amount of exudate; to use permeable wound cover; to check the condition of the perilesional skin; to check the need for antibiotic therapy; to verify the need to cover the wound, as protection; to check the risk of infection	100%
Neurological function		
ND	Skills learning, impaired (10018225)	83%
NR	Skills learning; skills learning, improved	100%

Continue...

Continuation...

NI	To adapt instruction to the person's level of knowledge and understanding; to assess learning ability; to assess psychosocial response to instruction; to establish mutual and realistic learning goals; to offer learning materials to illustrate the information; to organize information in a logical sequence and simple language; to provide feedback on learning content; to reinforce important information	100%
ND	Health knowledge, ineffective (10017977)	83%
NR	Health knowledge, effective; health knowledge, improved	100%
NI	To help the person to deal with his emotions; to assist the person in adapting to their health condition; to evaluate the person's knowledge about his health, the therapeutic scheme of the drugs in use, the duration of action of each medication, and the care with the wound; to guide possible side effects of the medication; to guide the performance of physical exercises of muscles and joints; to guide dietary regimen	100%
Endocrine function		
ND	Stress (10018888)	83%
NR	Stress, absent; stress, decreased	83%
NI	To search for activities that favor adaptation to the new lifestyle, such as music, meditation, yoga; determining an activity, to assist concentration, relaxing the mind; to identify psychological dependence on the wound; to obtain data on stress level; to participate in physical activity; to verify factors that trigger stress; to verify the need for psychotherapeutic follow-up	83%
Self-concept mode		
ND	Spiritual anguish (10001652)	83%
NR	Spiritual anguish, absent; spiritual anguish, diminished	83%
NI	To assess the importance of spirituality in the person's life and upbringing for the adaptation to the new way of life; to offer religious literature as requested by the person and availability of the service; to listen to the person's spiritual needs; to provide privacy and silence for prayer	83%
ND	Low self-esteem (10029507)	83%
NR	Self-esteem, improved; self-esteem, positive	100%
NI	To act on factors that trigger low self-esteem (exudate odor, dressing, among others); to seek positive elements about themselves; to guide positive self-esteem; to reinforce self-esteem	100%
ND	Sexual process, ineffective (10017977)	83%
NR	Effective sexual process; sexual process, improved	83%
NI	To search for appropriate strategies for sexual satisfaction	83%
ND	Spiritual condition, effective (10028529)	83%
NR	Spiritual condition, preserved	83%
NI	To guide the search for faith, according to religious belief; to guide spiritual well-being	83%
ND	Anxiety (10000477)	83%
NR	Anxiety, absent; anxiety, decreased	100%
NI	To understand the new condition of life; to refer to the Psychology service; to encourage participation in support groups; to identify factors that trigger anxiety situations; to identify the excessive need for family attention; to guide talking about the feelings; to guide the performance of a physical activity	100%
ND	Risk of adaptation, impaired (10022027)	83%
NR	Adaptation, improved; risk of adaptation, absent; risk of adaptation, decreased	83%
NI	To encourage the participation in support groups; to stimulate the search for acceptance through spirituality; to stimulate the search for understanding the new life condition; to encourage the communication with the family; to guide the search for strategies to adapt to the new life condition	83%
ND	Willingness (or readiness) to adapt to health status (parent concept: adaptation to health status – 10001741)	100%
NR	Adaptation to health status	100%
NI	To obtain data on willingness (or readiness) to adapt to health status	100%
ND	Willingness (or readiness) to accept health status (parent concept: health status acceptance – 10044273)	83%
NR	Adaptation to health status	100%
NI	To obtain data on willingness (or readiness) for acceptance of health status	100%
ND	Willingness (or readiness) for coping, effective (10001469)	100%

Continue...

Continuation...

NR	Coping, effective	100%
NI	To guide the search for coping strategies; to guide effective coping with the new condition of life	100%
ND	Adaptation, impaired (10022027)	83%
NR	Adaptation, adequate; adaptation, improved	83%
NI	To encourage the participation in support groups; to stimulate the search for acceptance through spirituality; to stimulate the search for understanding the new life condition; to encourage communication with the family; to guide the search for strategies to adapt to the new life condition	100%
ND	Spiritual condition, impaired (10023336)	83%
NR	Spiritual condition, effective; spiritual condition, improved	83%
NI	To encourage the restoration of spiritual belief, by understanding the new condition of life; to provide spiritual support; to guide the search for faith, according to spiritual belief	83%
ND	Response to the situation, negative (10032132)	83%
NR	Response to the situation, positive; result to the situation, positive	83%
NI	To refer to Psychotherapy; to stimulate the understanding of the new life condition; to encourage the participation in support groups; to maintain emotional support; to guide the conversation about the feelings	83%
Role function mode		
ND	Hope (10025780)	83%
NR	Hope, preserved	83%
NI	To advise on hope; to help the person to adapt to the new lifestyle; to understand family dynamics in the field of the promotion of hope; to raise the person's self-esteem; to stimulate the person in the search for trust; to identify the meaning of life; to participate in help groups	83%
ND	Social isolation (10001647)	83%
NR	Social isolation, diminished; relationship, positive; socialization	83%
NI	To encourage the participation in social activities; to encourage participation in support groups; to guide the performance of leisure activities; to advise on ways to prevent odor	100%
ND	Socialization, impaired (10001022)	100%
NR	Socialization	100%
NI	To stimulate communication; to encourage group participation; to encourage participation in religious groups, according to their faith; to guide socialization initiatives; to participate in voluntary activities	100%
ND	Sadness (10040662)	83%
NR	Sadness, absent; sadness, diminished	83%
NI	To check new meanings for memories of pain; to encourage participation in social groups; to stimulate dialogue; to obtain data on sadness; to guide talking about feelings; to guide the person to practice physical activity; going out with friends	83%
Interdependence mode		
ND	Risk of loneliness (10015179)	83%
NR	Risk of loneliness, absent; risk of loneliness, decreased; socialization	83%
NI	To discuss the feelings of melancholy, sadness, and withdrawal; to encourage participation in groups that allow people to get closer; to stimulate walks; to make new friends; volunteering; to guide to have positive attitudes; to play a group sport	100%
ND	Marital satisfaction, negative (10011757)	83%
NR	Marital satisfaction	83%
NI	To stimulate the sexual aspect of the relationship; to stimulate positive thoughts about the relationship; to encourage adequate communication; to encourage respect in the relationship; to guide to conflict resolution	83%
ND	Work satisfaction, negative (10025382)	83%
NR	Work satisfaction	83%
NI	To contribute to a healthy environment; to encourage friendly relationships at work; to obtain work data; to advise on labor rights in the event of prolonged leave or for periods to undergo treatment; to participate in the activities proposed at work	83%

Source: theauthors (2020).

Notes: PC = agreement percentage. LL = lower members.

discomfort in social situations, causing extrusions in living with friends and family. Fear of dressing exposure results in decreased social and daily activities, leading to self-isolation.²²

The phenomena discussed earlier present in the nurse's care routine may have influenced the general agreement among experts. Furthermore, the correlation between diagnoses, results, and interventions was not entirely linear, with validation by the experts seeking to bring the tested clinical reality closer to the situations they experienced.²³ This statement is corroborated by the fact that diagnoses that did not obtain 100% AP can have results and interventions recognized and validated by experts in their entirety. Even with strict criteria for the selection of specialists, interventions are more recognized, to the detriment of the diagnosis.

On the other hand, the non-validation of some diagnoses may reflect the existence of other enunciates that stand. This situation was verified at the intersections between the diagnoses "sleep, impaired" and "insomnia". Despite the hierarchical relationship between both in the ICNP®, not all sleep impairment is characterized by insomnia, which would justify another diagnosis. In this case, the result of non-validation may interfere with more comprehensive diagnostic options.

When performing the distribution of ND enunciates in the adaptation theory, we could realize the main modes presented by the person with a vasculogenic ulcer, predominating the physiological mode, due to the physical needs and complex processes for their adaptation. The broad subdivision of the physiological mode of Roy's theory provides a longer list of NDs, in addition to the fact that the empirical basis used favored this aspect because it has the hegemony of the biomedical model, which is found in medicalization and hospitalization. For other models to be incorporated into care, it is essential that nurses raise their level of knowledge and action, to understand the magnitude of their practice directed to care.²⁴ Theoretical models that surpass the biologist view must be prioritized in chronic situations and adaptation. This discussion is considered a limiting factor of the validated subset, which lacks enunciates regarding the modes of interdependence and role function.

CONCLUSION

We validated 56 NDs, 99 NRs, and 411 NIs. When making the distribution of enunciates according to the theory of adaptation, we could realize the main modes

presented by the person with a vasculogenic ulcer, predominating the physiological mode, due to their needs and complex processes (oxygenation, nutrition, elimination, activity, and rest), protection, feelings, fluid and electrolytes, neurological function and endocrine function), with 37 NDs. Its numerical representation can be related to the characteristics of the empirical basis used. Regarding the mode of self-concept, spirituality has great interference in the complex health-disease processes, with 12 NDs elaborated. The modes of interdependence and role function scored seven NDs, indicating that it will be necessary to expand the list with enunciates referring to them.

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