Validation of ICNP® Nursing Diagnoses for assistance to women during postpartum

Validação de Diagnósticos de Enfermagem da CIPE® para assistência às mulheres no período pós-parto

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ABSTRACT
The nomenclature validation contributes in the care provided by Nursing, stimulating and directing necessary changes for the quality improvement of attention to woman’s health. The study aimed to validate affirmatives of ICNP® Nursing Diagnoses for nursing assistance to women during postpartum. This is a methodologic study composed by three steps: affirmative selection, semantical analysis and Index of Agreement calculation. The sample was composed by 12 experts in Obstetric Nursing and used an instrument with items of interest for this study. Thirty (88.23%) ICNP® Nursing Diagnoses were assessed, and only four were not validated. The study found the need to investigate and update ICNP® terms permanently. Besides, the proposal and tendency of using electronic records in health institutions points to the need to validate, standardize, and legitimize Nursing Diagnoses for clinical practice.

Descriptors: Obstetric Nursing; Validation Studies; Nursing Diagnosis.

RESUMO
A validação de nomenclatura possibilita uma contribuição no cuidado prestado pela Enfermagem, estimulando e direcionando mudanças necessárias para a melhoria da qualidade da atenção à saúde da mulher. O estudo objetivou validar afirmativas de Diagnósticos de Enfermagem da CIPE® para a assistência de enfermagem às mulheres no período pós-parto. Trata-se de um estudo metodológico, composto por três etapas: seleção das afirmativas, análise semântica e cálculo do Índice de Concordância. A amostra foi composta por 12 experts em Enfermagem Obstétrica e utilizou-se um instrumento contendo itens de interesse da investigação. Foram validados 30 (88,23%) Diagnósticos de Enfermagem da CIPE®, sendo apenas quatro não validados. O estudo evidenciou a necessidade de se investigar e atualizar os termos da CIPE® permanentemente. Além disso, a proposta e tendência de utilização de prontuários eletrônicos nas instituições de saúde apontam para a necessidade de validar, uniformizar e legitimar Diagnósticos de Enfermagem para a prática clínica.

Descritores: Enfermagem Obstétrica; Estudos de Validação; Diagnóstico de Enfermagem.
INTRODUCTION

Postpartum starts with the placental abruption and it can be defined as the period when local and systemic changes, caused by pregnancy and delivery in the woman’s body, returns to pre-pregnancy state\(^1\). It should be noted that major part of maternal and neonatal morbidity and mortality situations occur during the first week post-delivery.

During postpartum Nursing actions should be developed for promotion, prevention, treatment and healing, allowing women to live this period in the most comfortable, safe and healthy way possible. In this perspective, operationalization of the Nursing Assistance Systematization (NAS) using history, diagnosis, planning, implementation and assessment, should guide these professionals actions\(^2\).

For such, the use of a classification system benefits the development of essential elements to professionalization, for example, a body of own knowledge, autonomy and professional self-confidence\(^3\). The International Classification for Nursing Practices (ICNP\(^5\)) describes nursing practice in a global level, beyond favoring visibility of the Nursing contribution in information systems. Its structure consists of inherent and relevant terms for its practice, thus, allowing elaboration of Diagnoses, Interventions and nursing Results to describe nursing phenomenon of interest\(^4\). The ICNP\(^5\) objectives crave a representation that allows projection of standardized tendencies to patient needs, and for this reason, incentivizes research and assist the teaching-learning process\(^5\).

Studies\(^2,6-9\) have been developed in Brazilian nursing and worldwide searching for a practice focused on women including Diagnoses, Results and Nursing Interventions addressing postpartum assistance and registry development and documentation of nursing actions. A narrative literature review\(^10\) about clinical validation of Diagnosis, Results and Nursing Interventions showed lack of publications bringing out the discussion about such aspects, which have recent studies about it and points to the need of improving this sector.

In this sense, the present study aims to contribute for a quality postpartum nursing practice, giving it autonomy, specificity, competency and consistency for the nurse’s job.

The use of these tools would allow Nursing contribution in care, stimulating and directing needed changes to improve the attention quality to women’s health. For that, it is fundamental to validate the nomenclature, as Nursing Diagnoses normally come from inductive and deductive processes, without literature support\(^11\).

Within the ways that can be used to verify the nomenclature validation, in this case, in the nursing practice classification system, content validation is noticed, intended to identify conditions that should be identical to Nursing Diagnoses. That is, to confirm if the routine practice is identified or not with its theoretical basis with the meaning attributed to diagnoses’ terms, in a sense to approve if proposed concepts are recognized by professionals who use them\(^11\).

Facing the exposed, we question how the knowledge available in the literature can be used as theoretical basis to give support and how it could provide instruments for the nursing assistencial practice? As answer to this question, this study aimed to validate affirmatives of ICNP\(^5\) Nursing Diagnoses to assist women during postpartum.

METHODS

A methodological study, defined as the one planned aiming to analyze validity and reliability of instruments to measure constructs used as research variables\(^12\), or to analyze concepts potentially useful in clinical practice, in this case, in nursing assistance to women during postpartum. It is characterized by a quan-qualitative approach, as it considers opinions and information translating them in numbers to classify and analyze them, and it involves the dynamic relationship between
phenomenon interpretation and attribution of meanings\(^{13}\).

This study was approved by the Ethics in Research Committee under the protocol n° 0272/13 CAAE: 03526113.6.0000.5188 and followed the ethical precepts foreseen in the Brazilian regulation about research with human beings. The study was conducted at the Obstetric Clinic from the University Hospital Lauro Wanderley/CCS/UFPB, in João Pessoa –PB. Data collection was performed in 2013 and the sample was composed by 12 experts, being eight assistential nurses and four professors of obstetric nursing, after signing the Free and Informed Consent Term.

The first step of the study was the selection of ICNP\(^{\circledast}\) Nursing Diagnoses version 1.0, from a previous study conducted in 2012\(^{17}\). Between 68 Nursing Diagnoses (ND) affirmatives, we selected 33 potentially applicable to assistance to women during normal birth. This concept refers to their health status during postpartum, excluding infectious and hemorrhagic cases from this pregnancy-puerperium cycle\(^{1}\). After, we updated Diagnoses terms to the ICNP\(^{\circledast}\) nomenclature version 2.0 and broke the impaired sleep and rest ND as: compromised sleep and compromised rest, seen that, in some Nursing Interventions, they can be different between the two.

In the second step, we conducted semantical analysis of affirmatives, aiming to verify the theoretical connection with the concept definition that was trying to be measured. We asked participants that while judging each item in terms of the ICNP\(^{\circledast}\) definition, they would mark if they understood them or not. However, for this step to keep going some changes needed in Diagnoses affirmatives were made, updating the focus axes and judgement based on ICNP\(^{\circledast}\) Version 2.0. After that, a questionnaire with 34 Diagnose Affirmatives was created with its respective ICNP\(^{\circledast}\) definitions. Considering that as this taxonomy was evolving, its terms definitions were being synthesized, and the search for older versions as reference was needed, as: ICNP\(^{\circledast}\) Beta 1 version and ICNP\(^{\circledast}\) version 1.0. In this step, eight assistant nurses participated, and were considered experts for having more than four years in obstetrics assistance in the Hospital mentioned above. For this validation step, the following decision items were defined:

1. To keep the item if there was understanding of the wording.
2. To modify the item, if there was no comprehension of the wording by the nurses, if attending a theoretical coherence between its argumentations and the ICNP\(^{\circledast}\) definition.

In the third step we conducted a content validation, through the calculation of the Index of Agreement (IA) between assessors. To avoid directionality in the answers, we added a total of 34 NDs, five served as confusion variables: Dyspnea, Infectious surgical wound, Nausea, High blood pressure, cervical dilation pain, which did not express content specific related to normal postpartum, totaling 39 NDs. We asked four professors from the field to judge each item of nursing puerperium assistance, marking if they agreed or disagreed if ICNP\(^{\circledast}\) NDs from version 2.0 expressed identifiable items in assistencial practice.

We opt to consider “totally applicable to assistance practices to women during postpartum”, NDs with an IA ≥ 0,80, that is, considering that always when a woman clinically meets normality patterns considered for this period, these NDs “will be” identified. In reference to ones with an IA ≥ 0,70 and < 0,80, we considered “potentially applicable”, supposing that these “could be or not” identified, therefore not being eliminated. All other affirmatives with an IA ≤ 0,70 were disregarded.

Posteriorly, considering the availability of the most recent ICNP\(^{\circledast}\) - Version 2013 – in Portuguese (Brazil), we updated terms.

**RESULTS**

Referring to modifications done in the second methodological step, the terms were adjusted: “impaired” to “compromised”; “increased” to “high”; “lack” to “absence”; “lack of knowledge” to “low level”;

\(\text{IA} \geq 0.80\)
“efficacious” to “effective”; “colic” to “postpartum uterine pain”, “altered” to “compromised”. In some Diagnose affirmatives, we added the terms “actual”, “self”; “postpartum period” and “post-surgical period”.

As a result of the step mentioned above, the following terms were changed: for the affirmative “compromised exclusive breastfeeding” it was suggested “compromised exclusive maternal breastfeeding” as a question of conceptual coherence. For “actual constipation” it was suggested to remove the word “actual” as it is a redundant term, as when the problem is presented, the diagnose is understood at the real time.

For the diagnosis “compromised body self-hygiene” the suggestion was to alter to “compromised body hygiene” and for the diagnosis “compromised self-hygiene of the vulvar region”, it was suggested “compromised hygiene of the vulvar region”. Modification suggestions of diagnoses mentioned above were done arguing a present redundancy in affirmatives.

Results from validation steps can be observed on the following Charts. To understand them, we divided them into three columns, being the first column composed by Diagnoses selected in the primary study; the second by modified Diagnoses by semantical analysis and the third by Diagnoses updated in accordance with the 2013 ICNP® translation.

Regarding the Content Validation (Calculation of Assessor’s Agreement Index) the Chart 1 shows that 18 (52,94%) affirmatives reached IA = 1,0, being considered totally applicable during postpartum assistance.

Yet, 12 affirmatives (35,29%) were able to reach an IA = 0,75, therefore being considered potentially applicable to women in postpartum situations, as it can be observed in Chart 2.
The Chart 3 demonstrates that only one affirmative (2.94%) reached a IA = 0.50, and three (8.82%) reached an IA = 0.25, leading these NDs to a non-validation by the present study.

From the results of the study, it was noted that experts validated 30 (88.23%) affirmatives of Nursing Diagnoses for nursing assistance to patients during postpartum.

**DISCUSSION**

The Nursing Diagnoses affirmatives validated in the study are corroborated with other studies present in the specific literature (6-7,11,14-19).

Breastfeeding related NDs were validated with an Index of Agreement ≥ 0.75. Literature analysis allowed to identify in a previous study (14) the same Nursing Diagnoses, although, in the present study, the judging term “efficacious” was substituted by effective, which in accordance with the Portuguese dictionary, means that this is something positive, truthful (20). Other study (6) identified that although puerperium women presents an effective breastfeeding, 75% of the sample reported factors that could lead to ineffective breastfeeding. A study (15) found the second most frequent ND as ineffective breastfeeding, which was validated as interrupted breastfeeding, reaching IA of 0.75.

Impaired sleep and rest are factors permeating puerperium women for many reasons (7), thus, this ND was broken and validated by this study as compromised sleep and compromised rest, both reached IA = 1.0.

Regarding the ND actual exhaustion during postpartum and actual fatigue during postpartum, unanimous agreement was perceived between experts.

Vascular regulation during immediate postpartum period should be indispensably monitored, as during the expulsive period, hemorrhagic phenomenon can occur (7), thus, NDs for hemorrhagic risk during postpartum and low blood pressure during postpartum were validated. Yet, pain sensation during this period provokes changes in muscle tonus, converging to colic, acute pain, and chronic pain diagnoses found in the literature (6-7,16), which have semantical relationship with the validated ND uterine pain during postpartum.

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<tbody>
<tr>
<td>Interrupted breastfeeding</td>
<td>1. Interrupted breastfeeding</td>
<td>Interrupted breastfeeding</td>
<td>0.75</td>
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<tr>
<td>Constipation</td>
<td>2. Constipation</td>
<td>Constipation</td>
<td>0.75</td>
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<tr>
<td>Infection risk</td>
<td>3. Infection risk</td>
<td>Infection risk</td>
<td>0.75</td>
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<tr>
<td>Edema (specify degree and location)</td>
<td>4. Peripheral leg edema</td>
<td>Peripheral edema</td>
<td>0.75</td>
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<tr>
<td>Altered self-esteem</td>
<td>5. Compromised self-esteem</td>
<td>Low self-esteem</td>
<td>0.75</td>
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<tr>
<td>Increased urinary elimination</td>
<td>6. High urinary elimination</td>
<td>High urinary elimination</td>
<td>0.75</td>
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<tr>
<td>Impaired body hygiene</td>
<td>7. Compromised body hygiene</td>
<td>Impaired self-Hygiene</td>
<td>0.75</td>
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<tr>
<td>Mammary fissure</td>
<td>8. Actual mammary fissure</td>
<td>Breast fissure</td>
<td>0.75</td>
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<tr>
<td>Decreased blood pressure</td>
<td>9. Low blood pressure</td>
<td>Hypotension</td>
<td>0.75</td>
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<tr>
<td>Anxiety</td>
<td>10. Normal anxiety</td>
<td>Anxiety</td>
<td>0.75</td>
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<tr>
<td>Impaired risk of mother-child bond</td>
<td>11. Compromised risk of mother-child bond</td>
<td>Impaired risk of parental-child affective</td>
<td>0.75</td>
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<tr>
<td>Lack of knowledge about family planning</td>
<td>12. Low level of knowledge about family planning</td>
<td>Impaired family planning</td>
<td>0.75</td>
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A study conducted in 2010, having as basis the taxonomy of the North American Nursing Diagnosis Association (NANDA), identified the Nursing Diagnose “impaired knowledge” found in all participants, involving factors related to care provided to the child, breastfeeding storage, milking, breastfeeding, maternal eating, care with breasts, care with abdominal and perineal surgical incision. Through the validation process in the discussed study, five affirmatives were validated in similarly related to “impaired knowledge”: low level of knowledge about breastfeeding; absence of knowledge about maternal milking; low level of knowledge about care with the newborn; low level of knowledge about surgical wound self-care; low level of knowledge about breast self-care.

Other researchers identified impaired knowledge about contraceptive methods that semantically correlated with low levels of knowledge about family planning; which was validated with IA = 0,75 in our study.

In relation to the Constipation ND, a study used experts for content validation and found that, based on NANDA, an agreement of 0,98 about defining characteristics of this diagnosis between assessors. This diagnosis, as well as the risk of appearance, is a common phenomenon during postpartum, and it was present in approximately half of puerperium interviewed in a previous study; corroborating with its validation in this study, with IA = 0,75.

Regarding the ND risk of infection, authors found that invasive processes deriving from vaginal birth or cesarean can cause infections in the correspondent sites to the procedure. Thus, the validated NDS were: infection risk and risk of normal surgical wound.

Peripheral edema in legs (IC = 0,75) was found in a recent study, corroborating with the obtained positive result.

Low self-esteem was described in previous studies as a feeling present during postpartum related to changes in the woman’s life due to her new role as a mother, in her body structure and in the relationship with her partner. In this perspective, the ND compromised self-esteem was validated with IA = 0,75. Feelings permeate in many scopes, and anxiety is present in relation to new situations caused by this moment. Thus, the validation of the ND normal anxiety corroborates with the researchers from the field.

Previous studies built Nursing Diagnoses related to love, acceptance and self-realization psychosocial needs. Therefore, the validation of the NDS: risk of compromised maternity/paternity and risk of compromised mother-child bond confirms their presence in the specific literature.

CONCLUSION

This study aimed to validate ICNP Nursing Diagnoses affirmatives to assist women during postpartum.

Thirty ICNP Nursing Diagnoses affirmatives were validated to assist patients during postpartum.

During the study’s steps, limitations were noted in relation to operationalization of discussion groups, considering the lack of time availability of nurses participating in the sample, and the lack of publications related to the investigation object of this study.

We made evident the need to permanently investigate and update ICNP terms. Also, the proposal and tendency to use electronic records in health institutions points to the need for studies to validate, standardize and legitimize Nursing Diagnoses for clinical practice.

Thus, it is necessary that nurses use in SAE in their practice, and a Classification System, contributing to a more humanized care, consistent and effective. Another relevant aspect is the care registration and documentation, necessary to legitimize and consolidate the profession, although, noted to be incipient until the moment.

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