

# Validation of ICNP® nursing diagnoses for good practices in labor

Validación de los diagnósticos de enfermería de la CIPE<sup>®</sup> de buenas prácticas laborales Validação de diagnósticos de enfermagem da CIPE<sup>®</sup> para as boas práticas no trabalho de parto

## Abstract

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Submission: 12-17-2020 Approval: 01-06-2021 The study aimed to validate nursing diagnoses of the International Classification for Nursing Practice (ICNP®) focused on good practices during labor. The study is of the methodological type, carried out through a validation process divided into four stages: identification of terms relevant to the health priority, cross-mapping of the terms identified with the terms of the ICNP®, construction of Nursing Diagnosis (DE) statements and validation of ND by specialists. A collection instrument was used containing twelve nursing diagnoses, with their definitions, clinical evidence, and good practices, which were evaluated by specialists. The sample consisted of doctoral professors, researchers on the subject, and obstetric nurses. After collection, the Nursing Diagnoses were evaluated according to the Content Validity Index (CVI), with six NDs considered to be applicable for nurses' care practice during labor, four NDs as potentially applicable and two NDs as not applicable. The study highlights the importance of using a classification system that standardizes the professional language of Nursing, using ICNP®, in addition to highlighting the relevance and effectiveness of using good practices during labor.

Descriptors: Nursing Diagnosis; Standardized Nursing Terminology; Validation Studies; Labor Presentation.

### Resumén

El estudio tuvo como objetivo validar los diagnósticos de enfermería de la Clasificación Internacional para la Práctica de Enfermería (CIPE<sup>®</sup>) centrados en las buenas prácticas durante el parto. El estudio es de tipo metodológico, realizado a través de un proceso de validación dividido en cuatro etapas: identificación de términos relevantes para la prioridad de salud, mapeo cruzado de los términos identificados con los términos de la CIPE<sup>®</sup>, construcción del Diagnóstico de Enfermería (DE) declaraciones y validación de ND por especialistas. Se utilizó un instrumento de recolección que contenía doce diagnósticos de enfermería, con sus definiciones, evidencia clínica y buenas prácticas, los cuales fueron evaluados por especialistas. La muestra estuvo conformada por profesores de doctorado, investigadores en el tema y enfermeras obstétricas. Después de la recolección, los Diagnósticos de Enfermería fueron evaluados según el Índice de Validez de Contenido (IVC), considerándose seis DE aplicables para la práctica asistencial de enfermería durante el trabajo de parto, cuatro DE como potencialmente aplicables y dos DE como no aplicables. El estudio destaca la importancia de utilizar un sistema de clasificación que estandarice el lenguaje profesional de Enfermería, mediante el uso de la CIPE<sup>®</sup>, además de resaltar la relevancia y efectividad de utilizar buenas prácticas durante el trabajo de parto.

**Descriptores:** Diagnóstico de Enfermería; Terminología de Enfermería Estandarizada; Estudios de Validación; Trabajo de Parto.

#### Resumo

O estudo objetivou validar diagnósticos de enfermagem da Classificação Internacional para a Prática de Enfermagem (CIPE<sup>\*</sup>) voltados para as boas práticas durante o trabalho de parto. O estudo é do tipo metodológico, realizado através de um processo de validação dividido em quatro etapas: identificação de termos relevantes para a prioridade de saúde, mapeamento cruzado dos termos identificados com os termos da CIPE<sup>\*</sup>, construção de enunciados Diagnósticos de Enfermagem (DE) e validação dos DE por especialistas. Utilizou-se instrumento de coleta contendo doze diagnósticos de enfermagem, com suas definições, evidências clínicas e boas práticas, que foram avaliados por especialistas. A amostra foi composta por docentes doutores, pesquisadores da temática, e por enfermeiros obstetras. Após a coleta, os Diagnósticos de Enfermagem foram avaliados de acordo com Índice de Validade de Conteúdo (IVC), sendo considerados seis DE como aplicáveis para a prática assistencial dos enfermeiros durante o trabalho de parto, quatro DE como potencialmente aplicáveis e dois DE como não aplicáveis. O estudo destaca a importância da utilização da CIPE<sup>\*</sup>, além de ressaltar a relevância e a efetividade da utilização das boas práticas durante o trabalho de parto.

**Descritores:** Diagnóstico de Enfermagem; Terminologia Padronizada em Enfermagem; Estudos de Validação; Trabalho de Parto.



# Introduction

Childbirth comprises a natural, physiological, and complex process, and understanding about its mechanisms, uterine contractility and maternal pelvis, and their relationship with the fetus, is essential for quality obstetric care<sup>1</sup>.

According to the World Health Organization (WHO), the performance of normal delivery by the obstetric nurse is characterized by being less interventionist and with a humanized technique, respecting the physiology of labor. In caring for the parturient, dealing with the sensations caused by labor is an essential element during this period. Thus, it is necessary to use good practices to provide continuous support, emotional support, and physical comfort measures to replace invasive techniques<sup>1</sup>.

Good delivery and birth care practices are techniques instituted by the Ministry of Health, recommended by WHO. They comprise a set of techniques to encourage the active participation of the parturient in her physiological process to assist her in dealing with discomfort during labor. Measures such as massages, relaxation techniques, hydrotherapy and free walking are considered by many parturients to be sufficient to relieve pain<sup>1-3</sup>.

During labor, nursing actions should be developed to promote health and prevent adverse events, providing continuous and humanized care. However, the low operability of the nursing process during labor can cause decontextualized and limited assistance<sup>4</sup>.

The nursing process is a strategic tool to systematize care, to assist the development of nursing actions to promote, prevent and treat clients, in addition to providing support so that nurses can express the clinical reasoning appropriate to each situation. In general, the systematization of Nursing care, when performed according to the phases of the process, improves the work provided and increases the quality of care<sup>4</sup>.

Among the various classification systems that standardize and standardize the language of the professional in the exercise to systematize nursing care, the International Classification for Nursing Practice (ICNP®) stands out, which is recognized by WHO as a member of the Classification Family International and was created due to the need for a clear and standardized terminology of nursing practice<sup>4-6</sup>.

The ICNP<sup>®</sup> is composed of anatomical concepts, distributed in a seven-axis model that allows the composition of diagnoses / results and nursing interventions. In addition, the latest versions of this include a list of pre-combined concepts that facilitate its use<sup>7</sup>.

Thus, combining the nursing process - with a standard classification - to systematize care becomes essential in all areas of the nurse's work, including the period of labor, for facilitating communication, registration, planning and for allow a unified language among professionals, to facilitate continuity of care and, consequently, the assistance provided is effective and of quality<sup>1-4</sup>.

Given the above and considering the scarcity of studies aimed at validating the ICNP<sup>®</sup> nursing diagnoses, especially related to labor and the use of good practices, this

Validation of ICNP® nursing diagnoses for good practices in labor Alencar CCA, Nascimento AKM, Rodrigues IDCV, Mendes RB, Barreiro MSC study aimed to validate nursing diagnoses of the International Classification for Nursing Practice (ICNP®) focused on good practices during labor.

## Methodology

This is a methodological type of research, divided into four stages, based on the model proposed by Cubas5 for the development of research aimed at ICNP<sup>®</sup> in Brazil, being: 1) Identification of terms relevant to health priority and / or clientele; 2) Cross-mapping of terms identified with ICNP<sup>®</sup> terms; 3) Construction of ND statements and 4) Validation of ND by specialists<sup>5-8-9</sup>.

The research locations were two maternity wards located in municipalities in the State of Sergipe. Characterized by having the Baby Friendly Hospital seal and following the guidelines of Rede Cegonha, the Santa Isabel maternity hospitals in the municipality of Aracaju-SE and Zacarias Júnior in the municipality of Lagarto-SE stand out for ensuring the use of good practices and safety in childbirth and birth care.

The research started with the choice of health priority - use of good practices in labor - and, after that, the identification of terms relevant to health priority was carried out, by searching the literature for content representative of the good practices in labor. Then, a cross mapping was performed with the terms found in the previous step and the terms contained in ICNP® 2017, identifying the pre-coordinated concepts of Nursing Diagnoses (ND) or combining terms from the primitive axes to compose a new concept, focused on practice in labor<sup>10</sup>.

In the third stage, 12 nursing diagnoses from ICNP<sup>®</sup> 2017 were built, with their definitions, the clinical evidence used for their choices and the good practices that could be used during labor, according to the literature review. These diagnostic statements underwent an internal validation process with two teaching doctor researchers on the theme of validation of nursing diagnoses, evaluating the structure of the ND set and its content.

Then, the data collection instrument was structured, containing the 12 nursing diagnoses to be evaluated by specialists using a Likert-type scale with a score from 1 to 5, being 1 - not characteristic; 2 - very uncharacteristic; 3 - in some characteristic way; 4 - considerably characteristic; and 5 - very characteristic<sup>5</sup>.

n the stage of validation by specialists, 30 nurses specialized in the subject participated. This second sample of the research was composed of professionals graduated in nursing with specialization in obstetric nursing, with at least one year of experience in maternity hospitals, who have experience with good practices and work in direct assistance to childbirth and puerperium in maternities in Aracaju / SE and Lagarto / SE. During the application of the collection instrument, participants were asked to judge each Nursing Diagnosis according to its definition, to evaluate its clinical evidence and the use of good practices, marking the item that expressed the applicability of the ND for the care practice during labor.



The data obtained were analyzed using the Microsoft Office Excel program, using the Content Validity Index (CVI), which measures the proportion of judges who agree on certain aspects of the instrument and its items. To calculate the CVI score, the sum of the questions for each item indicated as 4 or 5 was used, divided by the total sum of responses to the items. The diagnoses that obtained averages equal to or above 0.80 were considered applicable for nursing practice during labor. The diagnoses with a CVI between 0.51 and 0.79 were considered potentially applicable for care practice, and they can be used or not. Those who obtained a CVI less than or equal to 0.50 were considered not applicable for nursing practice<sup>5</sup>.

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This study was approved by the Ethics and Research Committee of the Federal University of Sergipe (UFS) under the protocol No. 3.013.701 and CAAE: 01916118.5.0000.5546 and followed the ethical norms foreseen in the Brazilian regulation on research development with human beings.

**Results and Discussion** 

Twelve nursing diagnoses, formulated according to ICNP<sup>®</sup> 2017, were evaluated by 30 obstetric nurses. The results of the validation step can be seen in the following tables.

Table 1. Nursing diagnoses applicable to the assistance to parturient women during labor. São Cristóvão, SE, Brazil, 2018	
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ICNP <sup>®</sup> 2017 Nursing Diagnoses	CVI*
Able to mobilize	0,86
Discomfort	0,86
Pain	0,86
Agitation	0,83
Uterine contractions within normal limits	0,83
Fear	0,80
Note: * CVI: Content Validity Index.	
Note: * CVI: Content Validity Index. Table 2. Nursing diagnoses potentially applicable for the assistance to parturient women dur	ing labor. São Cristóvão, SE, Brazil, 2018
	ing labor. São Cristóvão, SE, Brazil, 2018 <b>CVI*</b>
Table 2. Nursing diagnoses potentially applicable for the assistance to parturient women dur	-
Table 2. Nursing diagnoses potentially applicable for the assistance to parturient women dur ICNP® 2017 Nursing Diagnoses	CVI*
Table 2. Nursing diagnoses potentially applicable for the assistance to parturient women dur ICNP® 2017 Nursing Diagnoses Anxiety	<b>CVI*</b> 0,76
Table 2. Nursing diagnoses potentially applicable for the assistance to parturient women dur ICNP® 2017 Nursing Diagnoses Anxiety Effective uterine expulsion	<b>CVI*</b> 0,76 0,76

Table 3. Nursing diagnoses not applicable for the assistance to parturient women during labor. São Cristóvão, SE, Brazil, 2018		
ICNP <sup>®</sup> 2017 Nursing Diagnoses	CVI*	
Laceration risk	0,50	
Tolerance to effective activity	0,50	

Note: \* CVI: Content Validity Index.

As for content validation, Table 1 shows that 6 of the nursing diagnoses (50%) reached a CVI greater than or equal to 0.80, being considered, therefore, as applicable for the assistance to the parturient during labor. Table 2 shows that 4 diagnoses (33.33%) reached CVI between 0.51 and 0.79, being treated, then, as partially applicable for assistance. Table 3 shows that 2 nursing diagnoses (16.67%) reached CVI less than or equal to 0.5, thus being defined as not applicable for assistance. Thus, it is observed that 10 of the listed Nursing Diagnostics terms (83.33%) have been validated - applicable and potentially applicable - for care practice, concomitant with the use of good practices, during labor.

The humanization of childbirth proposal recognizes the autonomy of women and the need to treat this moment with practices that, in fact, have evidence and allow to increase their safety and well-being. It is known that nurses have technical-scientific skills that enable the organization of knowledge and procedures for the implementation of care systematization. Thus, the importance of using good practices during labor is emphasized through a systematic practice, based on tools that consolidate nursing care, based on scientific precepts, such as clinical evidence and terminologies that standardize the language of the profession<sup>4-11</sup>.

Among the 12 nursing diagnoses evaluated, the diagnosis "Able to mobilize" was proposed due to the importance of mobilization, as when the woman keeps moving, the uterus contracts more effectively and labor occurs in less time. Thus, walking should always be encouraged and offered according to the particularities of parturients. Through this good practice, it is possible to accelerate normal labor, stimulating the descent of the fetus, relieving pain, and minimizing the sensation of discomfort<sup>1-12</sup>.

The diagnoses "Discomfort", defined as "perception of lack of comfort or relief in physical, psycho-spiritual, environmental and / or social dimensions" and "Pain", conceptualized as "unpleasant sensory and emotional experience, of varying intensity and causes", were proposed



due to pain and discomfort during the period of labor, based on clinical evidence of facial expression of pain and selfreport of the parturient, which can generate changes in the woman's emotional state, causing a stressful event. During this period, the nursing professional has an important role in the management and relief of pain and discomfort of the parturient, through complementary and alternative practices - such as progressive relaxation, massages, warm bath, breathing techniques - enabling an improvement in the quality-of-care provided<sup>13</sup>.

The diagnosis "Agitation" characterized as "manifestation of symptoms of emotional distress - such as distress, through clinical evidence of increased vital signs (blood pressure, sweating, heart and respiratory rate)", was proposed due to the possibility of changes in the state emotional state of the woman during this period. The diagnosis "Uterine contractions within normal limits", described as "muscle forces that cause the expulsion of the fetus, which have uterine dynamics within the normal range (intensity, frequency and duration)", was proposed due to its regularity during work of normal delivery, clinically evidenced by frequency between 2 to 5 / min of uterine contractions during labor, duration between 50 and 60s, associated with painful sensation<sup>1</sup>.

During uterine contractions, the painful sensation causes the woman in a state of emotional distress and agitation. It is the role of the nurse to use good practices, such as breathing and massage techniques to provide wellbeing and relief to them.

The last nursing diagnosis considered applicable for assisting the parturient during labor was "Fear". Conceptually expressed by "feeling of fear and / or anxiety related to the imminent situation", it was proposed due to changes in the woman's emotional state during the period of labor and the inherent insecurity at the time. The clinical evidence of which may include the parturients' self-report, observation of the parturients' behavior and non-verbal communication, associated with good progressive relaxation practices, music therapy and breathing technique<sup>3</sup>.

Among the 12 nursing diagnoses, 4 were considered potentially applicable for the assistance to parturient women during labor: "Anxiety", "Inadequate pain control", "Effective uterine expulsion" and "Present expulsion period pain".

The diagnosis "Anxiety" is conceptualized by "psychic state of apprehension or fear provoked by the anticipation of an adverse or unknown situation", clinically evidenced by the parturients' self-report, observation of the parturients' behavior and elevation of vital signs (blood pressure, sweating, heart and respiratory rate).

The diagnosis "Inadequate pain control", characterized by "insufficient individual control over the experience of pain", proposed considering that pain can generate changes in the woman's emotional state and cause stressful events, is evidenced by a pain report and facial expression<sup>3</sup>.

Thus, clarifying doubts and demystifying normal childbirth is an important measure to reduce fear and anxiety in parturients, in addition to practices such as

Validation of ICNP® nursing diagnoses for good practices in labor Alencar CCA, Nascimento AKM, Rodrigues IDCV, Mendes RB, Barreiro MSC progressive relaxation, music therapy and breathing technique, which can be used to provide tranquility and comfort during this period.

The diagnosis "Effective uterine expulsion", characterized by "complete dilation of the cervix until total expulsion of the fetus", was proposed due to the frequency in which it occurs during normal labor. Evidenced by the erasure and dilation in the active phase of labor, rhythmic and regular uterine contractions (between 2 and 5 / min) and measurement of the fetus' heartbeat (between 110 and 160 bpm), it has as its main practice to provide effective expulsion ambulation<sup>1</sup>.

The diagnosis of "Present expulsive period pain", called "unpleasant sensory and emotional experience related to the expulsive period of labor", as well as the diagnosis of "Pain", was proposed due to the symptoms presented by the parturient during the expulsive period. With clinical evidence of pain reporting and facial expression of pain, the main measures taken to minimize these symptoms are walking, massage, warm bath and breathing technique<sup>1-3</sup>.

These diagnoses were considered potentially applicable for assisting the parturient woman during labor. Such a finding can be justified by the similarity in its clinical expression with the ND considered applicable, in addition, in clinical practice, the expulsion of the fetus appears because of uterine contractility.

The diagnoses "Risk of laceration", treated as "possibility of the occurrence of lesions in the vulva and vagina due to the ineffective elasticity of the muscles, which can be caused by labor", proposed due to the risk that the parturient suffers during the expulsive period of labor, with clinical evidence as episiorraphy, hyperactivity (uterine contractions greater than 50 mmHg) and fetal weight greater than 4 kg, and "Tolerance to effective activity", characterized by "sufficient physiological or psychological energy to support and perform required or desired activities ", were considered not applicable for assisting the parturient during labor. It is assumed that they have not been validated because they represent situations that you want to avoid with the practice of natural childbirth<sup>1-3-14</sup>.

# Conclusion

Twelve ICNP® Nursing Diagnoses were selected and 10 diagnoses were validated, 6 of which were considered applicable - "Able to mobilize", "Discomfort", "Pain", "Agitation", "Uterine contractions within normal limits" and "Fear ", And 4 potentially applicable ND -" Anxiety "," Effective uterine expulsion "," Present period expulsion pain "," Inadequate pain control "- possibly due to the similarity to the diagnoses considered applicable, for the assistance to parturients during work delivery.

Through the results obtained, the usefulness of the ICNP<sup>®</sup> is demonstrated, as a classification system that standardizes the language among nursing professionals and facilitates the continuity of the process, by allowing the identification and understanding of the parturients' needs, the necessary interventions of the professional nursing and



professional practice documentation, qualifying the assistance provided.

It is concluded that the study demonstrated the importance of conducting the survey of Nursing Diagnoses during the delivery period and their association with the use Validation of ICNP® nursing diagnoses for good practices in labor Alencar CCA, Nascimento AKM, Rodrigues IDCV, Mendes RB, Barreiro MSC of good practices during labor to consolidate humanized, continuous, and efficient assistance to the parturient woman. In addition, it promoted the development of nursing diagnoses for clinical validation during labor.

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