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Content analysis of the nursing diagnosis fatigue in the immediate postpartum period in hospital: focus group

Análise de conteúdo do diagnóstico de enfermagem fadiga no pós-parto imediato hospitalar: grupo focal

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ABSTRACT

Objective: to analyze the content of the conceptual and operational definitions of the Defining Characteristics and Related Factors of the Nursing Diagnosis “Fatigue” (00093) in people in the immediate postpartum period. **Method:** Content Analysis methodological study using a Focus Group. The experts analyzed and evaluated each Defining Characteristic and Related Factors. The degree of agreement between the specialist nurses was observed using the agreement rate with a cut-off point of 80% and the content validation index with a cut-off point of 0.8. **Results:** The Focus Group comprised five nurses, classified as Masters. The experts evaluated the 16 Defining Characteristics and the nine Related Factors, proposing and incorporating adjustments. All the elements were validated. **Conclusion:** The conceptual and operational definitions of the Defining Characteristics and Related Factors were validated for this population because they detail the clinical signs and contributing factors for assigning this nursing diagnosis to this specific group.

***Descriptores*:** Fatigue; Nursing Process; Postpartum Period; Validation Study; Standardized Nursing Terminology.

RESUMO

Objetivo: analisar o conteúdo das definições conceituais e operacionais das Características Definidoras e dos Fatores Relacionados do Diagnóstico de Enfermagem “Fadiga” (00093) em pessoas no pós-parto hospitalar imediato. **Método:** estudo metodológico, do tipo Análise de Conteúdo, por meio de um Grupo Focal. Os especialistas analisaram e avaliaram cada Característica Definidora e Fatores Relacionados. Foi observado o grau de concordância entre os enfermeiros especialistas por meio da taxa de concordância com ponto de corte de 80% e do índice de validação de conteúdo com ponto de corte de 0,8. **Resultados:** o Grupo Focal foi composto por cinco enfermeiras, classificadas como Masters. Os especialistas avaliaram as 16 Características Definidoras e os nove Fatores Relacionados, com adequações propostas e incorporadas. Todos os elementos foram validados. **Conclusão:** as definições conceituais e operacionais das Características Definidoras e dos Fatores Relacionados foram validadas para esta população, porque detalham claramente os sinais clínicos e os fatores contribuintes para a atribuição deste diagnóstico de Enfermagem a esse grupo específico.

Descritores: Fadiga; Processo de Enfermagem; Período Pós-Parto; Estudo de Validação; Terminologia Padronizada em Enfermagem.

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INTRODUCTION

The Nursing Process (NP), a method that guides nurses' critical thinking and clinical judgment, is essential for ensuring a systematic, safe, and efficient care plan for the patient. It consists of five stages: a) assessment, b) Nursing Diagnosis (ND), c) Nursing Planning, d) Nursing Implementation, and e) Nursing Evolution. This study emphasizes the NP's second stage.[1]

The ND allows nurses to make an individualized care plan, helps prioritize Nursing Interventions, and promotes communication between the Nursing team, i.e. it guides all subsequent stages of the NP. It is defined as the nurse's clinical judgment regarding the human response to the health condition and/or life processes of the individual, family, and/or community.[2]

To help nurses in their clinical practice and to organize nursing knowledge, Nursing Classifications were developed, which provide a standardized language and enable clear communication between the nursing and healthcare teams.[2]

Nursing classifications allow phenomena to be described in a single language, which helps to direct and organize nursing care. The Nursing Classification for NDs most widely adopted in Brazil is NANDA International (NANDA-I).[2]

The NDs in the NANDA-I Taxonomy must undergo a revision process based on validation studies to refine their components, i.e. the title, definition, Defining Characteristics (DC), and Related Factors (RF).[2] Validation aims to minimize errors and enables more assertive identification of the ND, improving it and making it true for a given population by identifying its elements.[3]

This validation process involves some crucial stages for refining the ND, with Content Analysis (CA) being the second stage, in which a group of experts aims to analyze the Conceptual Definitions (CD) and Operational Definitions (OD) of the DCs and RFs obtained in the first stage of the validation process and the integrative literature review.[3] CA can be carried out using frequently used methods, such as the binomial test, or innovative methods, such as the Focus Group (FG).[4-8]

The FG is a valuable tool, as it allows for more in-depth and contextualized meetings and discussions of experts' perceptions and opinions on the subject. This type of technique can make an enriching contribution to the validation process, especially at the CA stage. It helps to refine the ND and its components in a more assertive way for a given population.[4-8]

Thus, the focus of the study was to refine the ND Fatigue (00093) in the population of people in the immediate postpartum period in hospital.[2,3] One study[9] found that between

60% and 65% of people in the immediate postpartum period may experience fatigue and that this affects their quality of life. Fatigue can be related to sleep disorders, depression, and maternal routine problems.[10] Therefore, there is a need for specific and accurate care to improve the physical, mental, and emotional health of these people during the immediate postpartum period.[2,3] To this end, it is necessary to validate the ND Fatigue (00093) for this population.[3]

The ND Fatigue (00093), proposed by NANDA-I, falls under Domain 4 Activity/Rest, Energy Balance Class, and is defined as “an overwhelming sustained sense of exhaustion and decreased capacity for physical and mental work at the usual level”.[2] It has 16 DCs, which are: altered concentration; altered libido; apathy; increased need for rest; increased physical symptoms; tiredness; impaired ability to maintain usual routines; impaired ability to maintain usual level of physical activity; guilt due to difficulty fulfilling responsibilities; ineffective role performance; lack of interest in surroundings; insufficient energy; drowsiness; introspection; lethargy and non-restorative sleep pattern. As for RF, there are nine: anxiety; increased physical effort; environmental barrier; depression; malnutrition; non-stimulating lifestyle; stressors; lack of physical conditioning, and sleep deprivation. The populations at risk are: exposure to a negative life event and a demanding profession, and anemia, illness, and pregnancy are associated conditions.[2]

The phenomenon of fatigue is a common and harmful condition in the postpartum period, with significant impacts on puerperal women. Thus, this study is justified by the need to improve the identification and management of fatigue, based on a more precise and accurate ND for parturients, with clear and consistent definitions, aiming for more efficient nursing care.

OBJECTIVE

Therefore, the aim of this study was to CA the components of ND Fatigue (00093) in people in the immediate postpartum period in the hospital.

METHOD

This is a CA methodological study, the aim of which is to obtain the opinion of experts on the DC and OD of the components of ND Fatigue (00093) in the immediate postpartum period in a hospital.[2] The ND is the abstract definition of a term and the DO is the definition of the applicability of that term in practice.[3]

We chose to use the FG strategy, which is widely used in qualitative research.[4-8] It is a method that uses group interviews to collect data and is applied as a complementary strategy in quantitative research.[4-8]

The FG followed the following methodological steps: planning, conducting the sessions, and analyzing the data. The composition of the FG included a moderator, represented by the main researcher, an observer, represented by the supervisor, and the experts.[4-8]

The two FG sessions took place between November and December 2019, in a private location on the premises of a public university in the interior of the state of São Paulo.

The search for experts took place via CV searches on the Lattes Platform of the National Council for Scientific and Technological Development (CNPq), using the keywords: Fatigue, Nursing, Obstetrics, Nursing Diagnoses, and Nursing Classifications, and by the "snowball" method, which considered the indications of previously selected nurses.

The specialists were evaluated according to the criteria of Guimarães et al.[11] and were included in the sample of nurses who obtained a score greater than or equal to five. The criteria for selecting specialists are shown in chart 1.

Chart 1. Criteria proposed by Guimarães et.al. 2016.[11] Campinas (SP), Brazil, 2024.

Criteria	Score
Clinical experience of at least four years in the field of Nursing, and/or Midwifery, and/or Nursing Classifications (compulsory).	04
At least one year's clinical and/or teaching experience in the field of Nursing, and/or Midwifery, and/or Nursing Classifications.	01
Research experience with articles published on Nursing classifications in refereed journals.	01
Participation of at least two years in a research group in the area of Nursing, and/or Midwifery, and/or Nursing Classifications.	01
PhD in Nursing, and/or Midwifery, and/or Nursing Classifications.	02
Master's Degree in Nursing, and/or Midwifery, and/or Nursing Classifications.	01
Residency in Nursing, and/or Midwifery, and/or Nursing Classifications.	01

The literature suggests that an extra point should be added for each year of experience in the clinical or teaching field. Nurses who scored up to five points were called Juniors; those who scored between six and 20 were called Masters, and those who scored more than 20 were called Seniors.[11]

The number of experts to take part in the FG can vary; some authors[11] state that a quality FG session can be carried out with between three and 12 participants.[4-8]

The main researcher invited the specialist nurses to take part in the FG by e-mail, via which the Free and Informed Consent Term (FICT) was also sent with information about the research, the ethical aspects, the instrument for characterizing the specialists, and the instrument containing the CD and OD of the DC and RF of the ND Fatigue (00093). The latter supported the FG sessions.

The first session began with the experts being welcomed by the moderator, who explained the basic rules and the experts judged the CD and OD of the DC of Fatigue (00093). The second session saw the analysis of the CDS and ODs of the RFs.

The moderator mediated the discussions based on an instrument containing the CDs and ODs of the DCs and the RFs of the ND Fatigue (00093), constructed with the help of IR, the first stage of the validation study.[4-8] The objective of the observer was to obtain verbal and non-verbal information, intending to later help the moderator construct the analysis of the data obtained in the discussions.[4-8]

The experts judged whether they agreed or disagreed with the CD and ODs of the DCs and the RFs of the ND Fatigue (00093), with the following aspects taken into consideration: clarity, relevance, and accuracy for each DC and RF and their relationship with the population.[4-8] The psychometric measures were scored on a four-point Likert scale.

When carrying out CA by GF, it is necessary to pay attention to the degree of agreement between the experts on the items assessed.[4-12] Some studies have presented methods for quantifying this degree of agreement, including the agreement rate and the Content Validation Index (CVI).[13,14]

The agreement rate is a method used to measure the percentage of agreement between experts. It was calculated using the following formula: % agreement = number of participants who agreed/total number of participants x100.[13,14]

The CVI is a method that measures the proportion of agreement between experts using the CVI score. To analyze it, a four-point Likert scale is used: 1 = item not validated, 2 = item needs major revision to be validated, 3 = item validated, needs minor changes, 4 = item validated. Thus, in this study, the calculation was carried out using the formula: CVI = number of “3” or “4” responses / total number of responses.[13-14] In addition, it should be noted that the items that received a score of “1” or “2” were revised or eliminated.[13,14]

The CVI was calculated in two stages: when the experts judged the CDs and ODs of the instrument's DCs and RFs supported by the IR, giving rise to the initial CVI, and after the discussions, when the suggestions were incorporated. The components that scored less than four went through the re-evaluation process and a new CVI was calculated, called the final CVI. Components with an initial or final CVI greater than or equal to 0.8[13,14] and a

concordance rate greater than or equal to 80% were considered validated. Descriptive statistics were used to characterize the sample, using the Statistical Package for Social Sciences® (SPSS) version 20.0.

The study was approved by the Research Ethics Committee (REC) under opinion no. 4.035.696 of May 19, 2020.

RESULTS

Five of the nine nurses invited to take part in the FG were classified as Masters, female, four from the state of São Paulo, one from the state of Mato Grosso and all worked in a Higher Education Institution in the area of Nursing. Table 1 below shows the characterization of the sample.

Table 1. Characterization of the sample of specialists participating in the FG. Campinas (SP), Brazil, 2024.

	n	*Time (years)*	*Average (years)*	*Minimum (years)*	*Maximum (years)*	*Standard Deviation*
Age	5	-	43	35	48	6.04
Education	5	-	18.2	13	23	5.02
Professional Experience	2	< 20	15	10	23	5.78
Practice in NP	3	4	-	-	-	-
Experience in Gynecology and Obstetrics	2	4	-	-	-	-
Participation in a research group	5	2	-	-	-	-
Specialization in Gynaecology and Obstetrics	2	-	-	-	-	-
Master's Degree	1	-	-	-	-	-
Doctorate	4	-	-	-	-	-
Articles published in Gynecology and Obstetrics / or Nursing Process	4	-	-	-	-	-

All the experts judged that the ND establishes a relationship with the population of people in the immediate postpartum period in the hospital. Tables 2 and 3 show the initial and final agreement rate and the initial and final CVI of the DC and OD of the DC and RF of the ND Fatigue (00093), respectively. It should be noted that even though all the definitions had an initial CVI greater than or equal to 0.8, there were grammatical adjustments. Thus, all the components had an initial and final CVI.

Table 2. Concordance rate and CVI of the CDs and ODs of the ND Fatigue (00093) in the immediate postpartum period. Campinas (SP), Brazil, 2024.

DC	Initial CD and OD	Initial CVI	Initial concordance rate %	Final CD and OD	Final CVI	Final concordance rate %	Classification
Alteration in concentration	Conceptual: the ability to not be able to voluntarily focus on one's activities, to not be able to hold one's attention, energy, or thoughts, and to have a lapse of attention when caring for the baby and/or routine activities; Operational: the patient reported a decrease in the sustained ability of attention to focus on routine activities with the baby or to hold attention, energy, or thought.	0.8	100	Conceptual: the ability to be unable to voluntarily focus one's attention on one's activities, and to have lapses of attention when caring for the baby and/or routine activities. Operational: a verbal report or observation by the professional that shows a decrease in the sustained capacity of attention to focus on routine activities with the baby or to hold attention.	1.0	100	Validated
Alteration in libido	Conceptual: the variation in the instinctive search for sexual pleasure or the alteration of the energy that underlies the transformations of the sexual drive (vital energy or psychic energy, according to Freud). Operational: the patient reported a variation in sexual desire or sexual instinct.	0.0	100	Conceptual: the sexual, vital energy that characterizes disinvestment in the subject's relationship with themselves or with other objects, with the aim of satisfaction. Operational: the professional's verbal report or observation that shows a decrease in vital energy in terms of investment in caring for oneself, others, or objects.	0.8	100	Validated
Apathy	Conceptual: the state of emotional insensitivity or fading of all feelings, achieved by broadening physiological understanding. State of mind not susceptible to emotion or interest, characterized by indifference, absence of feeling, and lack of interesting activity. It can also	0.8	100	Conceptual: the alteration of will characterized by the complexity of mental life which is closely related to instinctive, affective, and intellectual fields, as well as to individuals' sets of values, principles,	1.0	100	Validated

	be a lack of physical and moral energy; lack of spirit; dejection; indolence and sluggishness. Operational: the patient reports emotional insensitivity or the fading of all feelings, achieved by broadening physiological understanding; indifference: absence of feeling; lack of activity of interest; lack of physical and moral energy; lack of spirit; dejection; indolence and sluggishness.			habits, and ethical and socio-cultural norms. Operational: the verbal report or observation of the professional that showed the individual's lack of will, their feeling of discouragement, their loss of strength and energy associated with easy fatigue, and difficulty in making decisions.			
Increase in rest requirement	Conceptual: the increased perception of not feeling rested, not being able to rest or maintain a period of leisure, is often related to postpartum hospitalization, where the puerperal woman's recovery, combined with caring for the baby and the responsibility of being a mother, can prevent her from resting. Operational: the patient reported not feeling rested, and not being able to rest or maintain a period of leisure during hospitalization.	0.8	100	Conceptual: the increased perception of not feeling rested, not being able to rest, or maintaining a period of idleness. Operational: the verbal report of not feeling rested, not being able to rest or maintain a period of leisure.	1.0	100	Validated
Increase in physical symptoms	Conceptual: the increase in a subjective series of phenomena mentioned by a patient about their illness. It can also be considered as a manifestation of organic or functional alteration, characterized as an indication, sign, omen, or presentiment. Operational: the patients reported experiencing disruptive changes in the postpartum period and an increase in some physical symptoms such as appetite, sleep, exhaustion, tiredness, and energy, among others.	0.6	100	Conceptual: increased individual perception of organic and/or functional changes. Operational: the verbal report of the experience of disruptive changes in the postpartum period, associated with an increase in physical symptoms such as appetite, sleep, exhaustion, tiredness, and energy.	0.8	100	Validated

Tiredness	Conceptual: the effect of tiredness, the state of fatigue caused by physical or mental exertion or illness. State of boredom; tedium; and exhaustion in carrying out daily routines, both physical and mental. Operational: the patient reported tiredness when carrying out her usual activities.	1.0	100	Conceptual: the effect of tiredness, the state of fatigue caused by physical or mental exertion or illness. State of boredom, tedium; exhaustion in carrying out daily routines, both physical and mental. Operational: the verbal report of tiredness when carrying out usual activities.	1.0	100	Validated
Impaired ability to maintain usual routines	Conceptual: the inability to perform routine activities properly, i.e. in the same way. Operational: the patient reports not being able to carry out routine activities.	0.6	100	Conceptual: the inability to adequately carry out daily activities as before. Operational: the verbal report of not being able to carry out routine activities as before.	1.0	100	Validated
Impaired ability to maintain usual physical activity	Conceptual: the inability to perform the usual exercises or activities or to incorporate new activities after the birth of the baby. Operational: the puerperae reported not being able to perform the usual exercises or activities after the birth of their baby.	0.8	100	Conceptual: the inability to perform the usual exercises or activities or to incorporate new ones after the birth of the baby. Operational: the verbal report of not being able to perform the usual exercises or activities after the birth of the baby.	1.0	100	Validated
Guilt about difficulty maintaining responsibilities	Conceptual: the feeling of complexity at not being able to answer for her actions or the actions of others. They pointed to difficulties in looking after themselves, their baby, and other maternal responsibilities. Operational: the patients reported difficulty in looking after themselves, their baby, and other maternal responsibilities.	0.8	100	Conceptual: the exaggerated judgment of her attributions concerning her role as a mother. Operational: the verbal report of not being able to fulfill the idealized role of mother and feeling guilty as a result.	0.9	100	Validated

Ineffective role performance	Conceptual: the inefficiency of performing the new role of being a mother and this influences the care of the baby and other maternal activities. Operational: the patient reported frustration at playing the role of mother, and that this got in the way of caring for the baby, other maternal activities, and family functions.	0.8	100	Conceptual: the inefficiency of performing the new role of being a mother and how this influences the care of the baby and other maternal activities. Operational: the professional's verbal report or observation that showed inefficiency in playing the role of mother, and that this had an impact on caring for the baby, other maternal activities and family functions.	1.0	100	Validated
Disinterest in surroundings	Conceptual: the lack of interest in one's surroundings constitutes the environment in which one lives. Operational: the patient reported a lack of interest in her surroundings.	0.6	100	Conceptual: a lack of interest in their surroundings. Operational: the verbal report of a lack of interest in their surroundings.	0.8	100	Validated
Insufficient energy	Conceptual: exhaustion of energy and lack of motivation to carry out maternal activities and care for the babies. Operational: the patient reported exhaustion and burnout, aspects that led to the puerperal women's lack of motivation to take proper care of their babies.	0.8	100	Conceptual: the perception of physical and/or mental exhaustion in carrying out maternal activities and caring for oneself. Operational: the verbal report of exhaustion which leads the puerperal woman to take inadequate care of herself or her baby.	1.0	100	Validated
Drowsiness	Conceptual: the desire to sleep or the inability to remain awake makes it difficult to carry out routine functions and activities. Operational: the patient reported difficulty keeping awake and carrying out routine activities and maternal responsibilities.	1.0	100	Conceptual: the desire to sleep or the inability to remain awake. She finds it difficult to carry out routine functions and activities. Operational: the verbal report of having difficulty staying awake and carrying out routine activities and maternal responsibilities.	1.0	100	Validated
Introspection	Conceptual: the person's reflection on what happens inside them, on their inner self, the aspect of their	0.8	100	Conceptual: the person's reflection on what is going on inside them, their inner self,	1.0	100	Validated

	experiences. Operational: the patient reported having a moment of inner reflection.			the aspect of their experiences. Operational: the verbal account of thinking about the changes that motherhood has brought to your life.			
Lethargy	Conceptual: the state of profound and prolonged unconsciousness, similar to deep sleep, from which the person can be awakened and return soon afterward. also considered is the inability to react and express emotions. Operational: the patient reported deep sleep.	0.0	100	Conceptual: psychomotor slowing that triggers the slowing of all psychic activity. All voluntary movement becomes slow, difficult, and cumbersome, with a possible latency period between the environmental request and the patient's motor response. Operational: the verbal report or observation by the professional that showed the psychomotor slowdown.	0.8	100	Validated
Nonrestorative sleep pattern	Conceptual: insufficient quantity and quality of sleep in the first few days after giving birth in hospitals. Operational: the patient reported that she didn't get enough sleep in terms of quantity and quality. She reported feeling tired when she woke up.	1.0	100	Conceptual: insufficient quantity and quality of sleep in the first few days after giving birth in hospitals. Operational: the verbal report of not having had enough sleep in terms of quantity and quality, with a feeling of tiredness when waking up.	1.0	100	Validated

Table 3. Concordance rate and CVI of the CD and OD of the RF of the ND Fatigue (00093) in the immediate postpartum period. Campinas (SP), Brazil, 2024.

RF	Initial CD and OD	Initial CVI	Initial concordance rate %	Final CD and OD	Final CVI	Final concordance rate %	Classification
Anxiety	Conceptual: the vague, nagging feeling of discomfort or fear, accompanied by an autonomic response (the source is often non-specific or unknown to the individual) and the feeling of apprehension caused by the anticipation of danger. It is a warning signal that draws attention to an imminent danger and allows the individual to take measures to deal with the threat. Operational: the patient reported a certain annoyance, fear, discomfort, apprehension; symptoms of irritability, and distress in the postpartum period.	1.0	100	Conceptual: the vague, nagging feeling of discomfort or fear, accompanied by an autonomic response (the source is often non-specific or unknown to the individual), and the feeling of apprehension caused by the anticipation of danger. It is a warning signal that draws attention to an imminent danger and allows the individual to take action to deal with the threat. Operational: the verbal report or observation of the professional that showed a certain annoyance, fear, discomfort, or apprehension concerning caring for the baby; symptoms of irritability and distress in the postpartum period.	1.0	100	Validated
Increase in physical exertion	Conceptual: the intensification of physical, intellectual, and moral strength to carry out tasks. Operational: the patient reported increased physical strength to care for the baby and carry out daily tasks.	0.6	100	Conceptual: the intensification of physical, intellectual, and moral strength to carry out the tasks. Operational: the verbal report of the intensification of physical strength to reconcile caring for the baby and daily tasks.	1.0	100	Validated
Environmental barrier	Conceptual: the obstacle, the limitation on the surrounding environment, in this case, postpartum hospitalization. Operational: the patient reported a limitation during her hospital stay in the immediate puerperium.	0.8	100	Conceptual: the obstacle, the limitation on the surrounding environment, in this case, postpartum hospitalization and at home. Operational: the verbal report of the limitation during hospitalization in the immediate puerperium and at home, for example: continuous visits, weather interference, reduced privacy, and restructuring of the family environment.	0.8	100	Validated

Depression	Conceptual: the act or effect of depression, the feeling of depressed mood, sadness, irritability, and emotional distress. State of discouragement and loss of interest. Operational: the patient reported being depressed, with irritability, insomnia loss of appetite, and, generally, insensitivity towards babies (in terms of care and breastfeeding).	0.6	100	Conceptual: the act or effect of depression, the feeling of depressed mood, sadness, irritability, and emotional distress. State of discouragement and loss of interest. Operational: the verbal report or observation by the professional that showed sadness, irritability, insomnia a change in appetite, a lowered tone of voice, an introspective attitude, a melancholic ideation (pessimism), a lack of will, a self-care deficit, and, in some cases, insensitivity towards babies (in terms of care and breastfeeding).	1.0	100	Validated
Malnutrition	Conceptual: lack of food, weakening or losing weight due to lack of nutrition. Operational: the patient mentioned weakness, lack of energy, and tiredness.	1.0	100	Conceptual: lack of food, weakness, or weight loss due to lack of nutrition. Operational: the professional's verbal report or observation that showed weight loss, weakness, lack of energy, and tiredness.	1.0	100	Validated
Non-stimulating lifestyle	Conceptual: the sets of traits, tendencies, ways, and tastes of life are not stimulating, i.e. it doesn't excite. Operational: the patient reported feeling a lack of interest, a depressed mood, and a lack of stimulation.	0.6	100	Conceptual: sets of traits, tendencies, ways of life, and tastes that displease the woman, in other words, they don't excite her. Operational: the verbal report or observation of the professional that showed disinterest, depressed mood, and lack of stimulation.	0.8	100	Validated
Stressors	Conceptual: something or some factor that causes or leads to stress, psychological or physical pressure. Operational: the patient reported stress and physical or psychological exhaustion with caring for the baby and the activities of motherhood.	0.8	100	Conceptual: something or some factor that causes or leads to stress, psychological or physical pressure. Operational: the verbal report of stress, physical or psychological exhaustion concerning caring for the baby, the activities of motherhood, associated with changes in the activities of daily living.	0,9	100	Validated

Physical deconditioning	Conceptual: an inability of the body to withstand routine physical activities. Operational: the patient reported not being able to resist performing physical exercises and routine activities.	1.0	100	Conceptual: the body's inability to withstand routine physical activities. Operational: the verbal report of difficulty in performing physical exercises and routine activities.	1.0	100	Validated
Sleep deprivation	Conceptual: interruptions in maternal sleep caused by night-time breastfeeding and caring for the baby. Operational: the patient reported that she is woken on average four times a night to carry out baby care activities and/or because of the baby's crying, which causes poor sleep quality.	1.0	100	Conceptual: interruptions to maternal sleep caused by breastfeeding and caring for the baby. Operational: the verbal report of reduced sleep and being woken up at night to carry out baby care activities and/or breastfeeding.	1.0	100	Validated

During the FG sessions, the experts made important observations, one of which was in relation to the precision and clarity of the initial OD[15] of the RF “nonstimulating lifestyle”, as the definition was generic and not aligned with the population studied. After discussions, the experts made adjustments and the final OD[15] was modified and validated. The initial CD remained unchanged.

Another point made by the experts was concerning the initial ND and DC of the RF “increased physical exertion”[15], which required adjustments to its semantics, with a view to clarity and reducing the occurrence of misunderstandings. After consideration by the experts, the final CD and OD were validated.

Another important aspect to note is that the experts suggested that the RF “environmental barrier”[15] and “nonstimulating lifestyle”[15] should be revised to check their relevance to the ND referred to, although they were already validated at this stage.

DISCUSSION

Some studies on ND validation are strongly influenced by methodological references that range from traditional methods to those considered advanced from a statistical point of view. At the CA stage, research groups on nursing care technology make some methodological and scientific adjustments to validate the elements that make up the ND in an innovative way, and this is how the FG emerged as a tool.[3-8]

The FG was crucial to the study, since the discussions provided an open debate, with exchanges of experiences, and facilitated the identification of consensus or disagreement between the experts on the items being evaluated, a fact that sets this method apart from other techniques.[4-8]

Regarding the characterization of the experts, the master classification reflects the most advanced level of clinical experience and reasoning. Experienced nurses, such as those in this study, highlight details that are extremely important for care while establishing a theoretical-practical correlation and accurately ignoring information that is not very relevant.[16] Allied with this fact, in this investigation, we have clinical experience in the area of Obstetrics, which made the discussions and problematization in the FG more pertinent to the population of “people in the immediate postpartum period in hospital”.[16]

It should be noted that most of the experts had published articles on NP and had been participating in research groups listed in CNPq research directories for at least two years. Valuing Nursing as a Science brings recognition and visibility to nursing as a profession, and this is consolidated through research groups and scientific production.[16,17]

Concerning the CA results, the final CVI values and the final agreement rate validated all the CDs and ODs of the DCs and FRs. This showed a consensus between the experts and a deepening of the discussion.[13,14] The ND Fatigue (00093) was found to be present in people in the immediate postpartum period in the hospital, and this ND negatively interferes with their lives in the puerperium.[16-21] In a study that aimed to assess fatigue in the postpartum period, 38.8% of the women had severe fatigue as a symptom at 10 days postpartum. Factors such as intense routines, caring for the newborn, sleep fragmentation, and breastfeeding can contribute to fatigue during this period.[21]

Another aspect to be addressed is that in some DCs and RFs, the initial CVI was zero or lower than the cut-off point. On the other hand, the final CVI of the DCs and RFs indicated an improvement and an increase in values, which shows that the experts' contributions provided a thorough improvement and refinement of these definitions.

During the FG, the experts made some important points about the two DCs that presented inaccurate CD and OD to the population. Among these, the DC “altered libido” stands out[15]. The experts pointed out that the term “libido” is ambiguous in its concept since it is defined as both “sexual pleasure” and a “relationship with an object”, which often leads to confusion. After discussions, the experts agreed that the term “libido”, for the population in question, had a connotation of “relationship with object” and not “sexual pleasure” and, for this reason, this DC was validated.[15,22] This problem (the ambiguity of the concept) was the subject of a study that aimed to identify the concepts of the term “libido”. One study[22] showed that there is ambiguity in the concept of the word and that its definition and connotation can vary from “sexual pleasure” to “relations with the object”, with indications of confusion and misunderstandings regarding its definition.[22]

The other DC that had inaccurate initial CDs and ODs for the population was “Lethargy”.[15] Following the discussions, the experts agreed that the population should be targeted. Thus, during the debate, the hypothesis was raised that, as a result of the postpartum period, the patient may have a psychomotor slowdown and a slowdown in her routine, which are common in this phase. Incorporating this idea led to the validation of CD and OD. Equivalent research aimed at investigating the associations between sleep characteristics reinforced that factors such as fragmented sleep can trigger fatigue and influence the patient's psychomotor slowdown, which slows down maternal activities.[21]

Another aspect raised by the experts was that the initial OD and CD of “increased physical symptoms”[15] and “impaired ability to maintain usual routines”[15] required revision in terms of clarity and precision. In this way, the experts discussed and reformulated the OD and CD, making them more objective and specific to the population, and so they were

validated. A study[21] that focused on investigating the association of objective sleep and fatigue in the early postpartum period with postpartum depression in Japanese primiparous women who intended to breastfeed found that increased physical symptoms, such as “depressive symptoms”, triggered fatigue and that fatigue can impair the “ability to maintain usual routines” in this population.[21]

Another discussion among the experts was concerning the initial CD of the DC “lack of interest in the surrounding environment”[15], as it was imprecise for both the “postpartum” period and the “hospital” environment. After discussion, the experts concluded that the definition needed to be adapted. Thus, it was concluded that the postpartum period can cause fatigue and compromise maternal well-being. In this sense, the CD was reformulated and validated. It should be noted that the final OD[15] remained the same as the initial one. A similar study[19], which aimed to identify and evaluate the factors that affect women's quality of life within six weeks of giving birth, highlighted the damage that the postpartum period, the hospital environment, and intense maternal care can cause to maternal well-being[19], with harmful effects.

The experts judged the initial CD and OD of the RF “Depression”[2,15] to be pertinent to the population in question, with indications of little need for alteration in terms of clarity, relevance, and precision. As a result, the initial OD had few changes and the final CD remained unchanged; as a result, both were validated .[2,19,21] A similar study[21] which aimed to assess fatigue during the postpartum period found that there was an association between the term “depression” and the term “fatigue”. However, it should be noted that these are terms with different concepts and that “depression” can be considered a condition associated with fatigue.[2]

CONCLUSION

All 16 DCs and nine RFs of the ND Fatigue were validated for content. The results showed that the DCs and RFs have a strong relationship with the ND Fatigue (00093). However, when associated specifically with the population “people in the immediate postpartum hospital”, this correlation becomes less noticeable, as observed in the CD and OD of some DC such as “alteration in libido” and “lethargy” and in some RF such as “environmental barrier” and “nonstimulating lifestyle”, this highlights the need to change the definitions, implement clearer and more objective language to enable better understanding by nurses in clinical practice.

The results of this study can significantly assist nurses in clinical practice and research by providing more precise and accurate nursing diagnoses. It is important to note that this study assisted in the improvement of standardized Nursing terminologies, so it will be crucial to submit these results to NANDA-I to ensure that definitions can be updated and incorporated, which will help to improve the levels of evidence for NDs. In addition, future studies will be carried out to explore the applicability of the ND to further consolidate the evidence, so this study will provide the basis for the next stage of the validation process: clinical validation.

CONTRIBUTIONS

Bruna Valentina Zuchatti, Raisa Camilo Ferreira participated in the conception, study planning, data analysis and interpretation, writing and critical review; Bruna Valentina Zuchatti, Raisa Camilo Ferreira, Erika Christiane Marocco Duran participated in the analysis and interpretation of the data, writing and critical review; Elaine Ribeiro, Luciana Aparecida Costa Carvalho participated in the analysis and interpretation of the data; Erika Christiane Marocco Duran, Paula Cristina Pereira da Costa participated in the critical review of the manuscript.

CONFLICTS OF INTERESTS

The authors inform that there is no potential conflict of interest.

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