Convergence, divergence and diagnostic accuracy in the light of two nursing terminologies

Convergências, divergências e acurácia diagnóstica à luz de duas terminologias de enfermagem

Convergencia, divergencia y precisión diagnóstica a la luz de dos terminologías de enfermería

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ABSTRACT

Objective: compare divergences and convergences between the nursing diagnoses established for a case study, in the light of two nursing terminologies. **Method:** a descriptive research was undertaken. The participants were 24 nurses from public teaching hospitals (N = 12) and hospital care institutions (N = 12) in the Northeast of Brazil. **Results:** in group A (6 faculty members and 6 clinical professionals), 51 diagnoses were established according to NANDA-I: 54.9% of high accuracy, 23.5% zero, 15.7% low and 5.9% moderate accuracy. In group B (6 faculty members and 6 clinical professionals), 43 declarations were established using the ICNP®: 44.2% of zero accuracy, 39.5% high, 16.3% low. Four out of five diagnostic titles of high accuracy in group A and the seven titles in group B converged; divergences were attributed to the number of combinations among the focus, judgment and location axes of the ICNP®. **Conclusion:** a range of titles was observed with different diagnostic inferences and low diagnostic accuracy in both groups.
Key words: Nursing; Nursing Diagnosis; Classification.

RESUMO

Objetivo: comparar divergências, convergências e acurácia dos diagnósticos de enfermagem estabelecidos para um estudo de caso, à luz de duas classificações. **Método**: pesquisa com delineamento descritivo, com 24 enfermeiros de instituições públicas de ensino e de assistência hospitalar, da Região Nordeste do país. **Resultados:** no grupo A (6 docentes e 6 assistenciais), foram estabelecidos 51 diagnósticos pela NANDA-I: 54,9% de alta acurácia, 23,5% nula, 15,7% baixa e 5,9% moderada. No grupo B (6 docentes e 6 assistenciais), foram estabelecidas 43 declarações pela CIPE®: 44,2% de acurácia nula, 39,5% alta, 16,3% baixa. Quatro entre os cinco rótulos diagnósticos de alta acurácia do grupo A e os sete do grupo B apresentaram convergências; houve divergências atribuídas ao número de combinações dos eixos foco, julgamento e localização da CIPE®. **Conclusão**: observou-se uma diversidade de rótulos com inferências diagnósticas distintas e com a presença de baixa acurácia dos diagnósticos, em ambos os grupos.
Descritores: Enfermagem; Diagnóstico de Enfermagem; Classificação.

RESUMEN

Objetivo: comparar divergencias y convergencias de los diagnósticos de enfermería, establecidos para un estudio de caso, a la luz de dos terminologías de enfermería. **Método:** investigación de diseño descriptivo, en que participaron 24 enfermeros de instituciones públicas de enseñanza (n = 12) y atención hospitalaria (n = 12), del nordeste de Brasil. **Resultados:** en el grupo A (6 docentes y 6 asistenciales), aplicando la NANDA-I, fueron establecidos 51 diagnósticos: 54,9% de alta precisión, 23,5% nula, 15,7% baja t 5,9% moderada. En el grupo B (6 docentes y 6 asistenciales), usando la CIPE®, fueron establecidos 43 declaraciones: 44,2% de precisión nula, 39,5% alta, 16,3% baja. Cuatro entre los cinco títulos diagnósticos de alta precisión del grupo A y los siete del grupo B mostraron convergencias; divergencias fueron atribuidas al número de combinaciones de los ejes foco, juzgamiento y localización de la CIPE®. **Conclusión:** Fue observada una diversidad de títulos con distintas inferencias diagnósticas y con la presencia de baja precisión de los diagnósticos en ambos grupos.
Palabras clave: Enfermería; Diagnóstico de Enfermería; Clasificación.

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INTRODUCTION

In the process of caring, the professional assesses the needs of the patient, identifies the nursing diagnoses and plans the care, in order to achieve desirable results. The diagnostic step was inserted as an essential element to the traditional model of the Nursing Process, since the 1970s[1]. The nursing diagnosis is defined as the clinical judgement that describes the health state of the client and guides nursing care[2].

The diagnostic reasoning process assumes the recognition of clues or evidence, comparison of clinical evidence, preparation of possible nursing diagnoses and validation of these nursing diagnoses by the argumentation of patients, family members and other professionals in order to perform the interventions and expected nursing results[3]. In other words, to elaborate the diagnosis, it is necessary to analyze and synthesize data obtained[4] and to identify the observed fact with the best concept available in one of the standardized language systems. Furthermore, the diagnostic inference can present different accuracy between the professionals with the same information[5]. Such aspect caught our eye.

Standardized languages systems (SLPs) provide structure to organize diagnoses, interventions and nursing outcomes considered important instruments to deal with the growing nursing complexity regarding the production of knowledge, reasoning and practice[6]. It should be noted that a nursing diagnosis SLP organizes terms and expressions that represent concepts about human responses or a patient problem. With a diagnosis SLP, the nurse has a structure that allows the organization of a universe of possibilities for clinical situations that require nursing care.

Among the most widespread diagnosis SLPs in Brazil, there is the one from NANDA International, Inc. (NANDA-I) since the 1970s[7] and the International Classification for Nursing Practice (ICNP®), released in the late 1990s[8]. Currently, NANDA-I[7] has a multiaxial structure with 13 domain, 47 classes and 217 diagnoses. Each domain consists of classes and these classes consist of diagnostic concepts.

ICNP® had its first release in 1996. Since then, seven versions have already been published. The version 1.0 of ICNP® offers 1,658 terms, distributed in the 7-Axis Model, which are called: focus, judgement, means, action, time, location and client. In the last published version, ICNP®[8] presents 3,894 concepts, of which 1,592 are *pre-coordinated concepts* (783 nursing diagnoses and outcomes and 809 nursing interventions), and 2,302 are *primitive concepts*, distributed in the axes mentioned[9].

Both taxonomies allow the nurse to name the diagnostic inferences about a given clinical situation. However, we were concerned if the diagnostic precision or accuracy could be inconsistent when different language systems are adopted. It was our interest to identify if the diagnostic labels chosen by the professionals, in each language system, would represent the same clinical situation.

It is worth noting that, in 1990, a nurse and researcher from the United States of America developed a tool to estimate the accuracy of the diagnoses established by nurses.

The author defined diagnostic accuracy as "[...] an appraiser's judgment as to the degree of relevance, specificity and coherence of existing clues for a particular nursing diagnosis"[5].

In Brazil, researchers applied this scale to the diagnostic precision analysis, considering the validity shown by the instrument in two studies[5]; the findings of the Brazilian studies were not similar, therefore requiring an adaptation of the instrument, resulting in the Nursing Diagnosis Accuracy Scale (NDAS) - version 2[10].

NDAS - version 2[10] contributed to the viability of this study, aimed to identify the diagnostic accuracy, in addition to the convergences and divergences in the nursing diagnosis elaborated by nurses who used the NANDA-I and ICNP® classifications.

METHOD

This is a study of descriptive design that used a case study (clinical situation). It was carried out from July to September 2013, with nurses from public colleges (named with the number 1) and hospital care (named with the number 2) in two cities in the Northeast region of the Brazil (named with the letters A or B).

The procedure began with the preparation of the case study, based on eight assumptions[5]: to represent a typical situation of patients that nurses diagnose and manage in medical unit situations; to be clearly written; to reflect the situation of patients in clinical occurrences; to require the need for intellectual capabilities similar to those that are used in natural clinical environments; to contain at least four evidences to confirm a highly accurate diagnosis; to contain at least two evidences to deny an alternative diagnosis that would be rated as low in a precision scale; to stimulate the nurse to consider the diagnosis at different levels of precision, from the top to the bottom; and to allow the nursing diagnoses to be created with due regard for the principles of diagnostic reasoning.

The case study was subsequently submitted to validation by two judges, by the item-objective congruence method, with the purpose of assessing whether the case study allowed the achievement of goals. The following scores were applied to each of the objectives proposed in the case study: +1 = definitely a measure of the goal; 0 = undecided; -1 = definitely not a measure of the goal. The content validity index (CVI) is acquired based on the evaluations of the judge, adding the number of cells which received the +1 score for each judge, dividing this value by the number of cells and multiplying the result by 100. Then, the average percentages of all the judges are calculated, considering that a minimum agreement of 90% should be used as default with this method[11]. At the time, the judges were requested to create priority and alternative nursing diagnoses. As a result, each judge applied the NDAS – version 2 scaleto the diagnoses that she had listed. The purpose of this step was to define a standard model ("answer key") for the correction of the answers of the participants of the survey, to be described in the results.

Later, nurses that acted as professors in the institutions (A_1 e B_1) and nurses who developed care activities in institutions

(A$_2$ e B$_2$) were identified. To those who have shown interest and availability and expressed their assent to participate in the study, the following were delivered: an instrument for characterization of personal data, the case study (clinical situation) for preparation of diagnoses by NANDA-I (groups A$_1$ and A$_2$) and by CIPE® (groups B$_1$ and B$_2$) and an Informed Consent Form in two counterparts.

The last step comprised the researcher's analysis of the accuracy of the diagnoses made by participants using NDAS - version 2.Nursing diagnoses fell within one of the following categories of accuracy: Null, the score has a value of 0 and it means that there are no clues to indicate the diagnosis in question; Low, the score is 1 and it means that the clues have low importance, low specificity and low consistency; Moderate, the score ranges from 2; 4.5; 5.5-, representing the clues present in the evaluation data, with low coherence with the evaluation data, but highly/moderately clues specific to the diagnosis in question; High, scores of 9.0; 10.0; 12.5; 13.5-, showing that the clues present in the evaluation data are highly/moderately consistent with evaluation data and are also highly/moderately relevant, and highly/moderately specific to the diagnosis in question[10].

In the analysis of nursing diagnoses labeled with each taxonomy adopted, the distribution of labels and the frequency of the diagnoses prepared by groups A and B and the respective categories of diagnostic accuracy were compared. The uniformity of the distribution of the accuracy degree in the groups of nurses who used NANDA-I and ICNP® was analyzed by the Chi-square test and, in case of heterogeneity, Fisher's exact test, considering the significance level of 5%.

In the data analysis, with a view to achieving goals, only the diagnoses with high accuracy were considered in this report.

The research was approved by the Research Ethics Committee (CEP) at the Federal University of Pernambuco (UFPE), in October 2012.

Presentation of the case study (clinical situation)

- Identification: O. M. L., 54 years old, married, accompanied by his wife.
- History: admitted for treatment of lower limb ulcer and respiratory distress. Patient reported tiredness, productive cough and pain when raising his legs.
- Physical examination and laboratory data: conscious, oriented, quiet and receptive to dialogue. Sleep pattern unchanged. Isochoric and photo reagent pupils. Thready pulse. In oxygen therapy and peripheral intravenous hydration in the right upper limb. Lung auscultation with the presence of rhonchi in the left hemithorax, dyspneic, tachypnea, nose flaring, use of accessory muscles. Right lower limb with glossy, cold, pale, edematous skin, with tibial pulse diminished and the presence of a small and round wound on the calcaneus, with a pale base, moderate exudate and granulation points. Able to perform motor activities. Tax = 36.5 ℃, P = 57 bpm, RR = 30 mpm; BP = 100/60 mmHg; PaO$_2$ = 90 mmHg; PaCO$_2$ = 40 mmHg.

RESULTS

Twenty-four nurses participated in the study, 91.7% female, most of the aged36 to 50 years, graduated for more than 10 years, with a significant percentage of nurses with clinical experience of over 20 years. Both groups had the same number of nurses (7 professors and 5 nurses in care). As for degree levels, 54.2% had earned their PhD or Master's degree, 33.3% had completed a specialization program and 12.5% a nursing residency after graduation (Table 1).

In relation to the time of use of taxonomies adopted, it was verified that 58.3% of the professionals of Group A had adopted NANDA-I less than five years earlier; in Group B, the same number (58.3%) had used ICNP® for 6 years or more.

As for the self-assessment data about the ability to make accurate diagnoses, in Group A, eight (66.7%) nurses reported 70% to 100% accuracy; in Group B, seven of them (58.3%) also reported accuracy between 70% and 100%. It is worth mentioning that, in the analysis of the second group, there are reports of two (16.7%) nurses that classified their own diagnostic accuracy between 0 and 39%.

In Group A nurses, after using NANDA-I, made 20 different diagnoses with distinct frequencies, totaling 51 enunciations,

Table 1 - Descriptive analysis of the professional profile of the nurses (n=24), two cities in the Northeast, Brazil, 2013

Variable	n	%
Sex		
Female	22	91.7
Male	2	8.3
Age		
Up to 35 years old	6	25.0
36-50 years old	11	45.8
51 years or older	7	29.2
Years since graduation		
Less than 10 years	6	25.0
10-20 years	9	37.5
More than 20 years	9	37.5
Years of clinic experience		
Less than 10 years	7	29.2
10-20 years old	7	29.2
More than 20 years	10	41.6
Workplace		
A$_1$	7	29.2
A$_2$	5	20.8
B$_1$	7	29.2
B$_2$	5	20.8
Highestdegree earned		
PhD	7	29.2
Specialization	6	25.0
Master's degree	5	20.8
Residency	3	12.5
Specialization and Residency	2	8.3
Residency and Master's Degree	1	4.2

with different degrees of diagnostic accuracy. In the high accuracy category (n = 54.9%), the following diagnoses were rated: ineffective breathing pattern (00032); Risk of infection (00004); Impaired skin integrity (00046); Impaired tissue integrity (00044); and Ineffective peripheral tissue perfusion (00204). In the moderate accuracy category (n = 5.9%): Decreased cardiac output (00029) and Risk for activity intolerance (00094). In the low accuracy category (n = 15.7%), the following were found: Impaired gas exchange (00030) and Acute pain (00132). In the null accuracy category (n = 23.5%), the diagnoses were: Excessive volume of liquids (00026); Risk of peripheral neurovascular dysfunction (00086); Activity intolerance (00092); and Impaired comfort (00214).

In Group B, the 30 diagnostics listed, also with different frequencies, totaled 43 enunciations using ICNP®, with different degrees of accuracy. In the high accuracy category (39.5%), the following were identified: Risk for infection (10015133); Impaired skin integrity (10001290), Small heel ulcer (10020237); Small wound (10021178) on the calcaneus; Tissue erosion (10019732); Impaired breathing pattern (10001108); and Ineffective tissue perfusion (10001344). In the moderate accuracy category, no diagnosis was identified. In the low accuracy category (16.3%), the following diagnoses were established: productive cough; Right lower limb edema; Edema; Impaired gas exchange; and Pain. In the null accuracy category (44.2%), the following were identified: dyspnea (10029433); Dyspnea at rest (10029422); Pain (10023130) in the wound; Ischemic pain (10010896); and Altered heart tissue perfusion (10019745).

The participants presented 94 enunciations, with a predominance of high accuracy diagnoses in Group A and null accuracy in Group B; the difference between such data was not statistically significant (p = 0.056) (Table 2).

The professionals of groups A and B, with more than 6 years of experience, have identified an equal number of high accuracy diagnoses. However, the ratio comparison test was significant (p value = 0.028) in the comparison of the proportion of high diagnostic accuracy among participants who used NANDA-I and those who used ICNP, in the Group of professionals with less than 6 years of experience; the findings showed that the nurses who used NANDA-I have made 72% (n = 18) of the diagnoses in this category.

Table 2 - Frequency distribution of diagnoses created by groups of nurses A and B, according to the category of diagnostic accuracy, Brazil, 2013

Nursing diagnosis	Category of diagnostic accuracy				Total f (%)
	High f (%)	Moderate f (%)	Low f (%)	Null f (%)	
Group A NANDA-I	28 (54.9)	03 (5.9)	08 (15.7)	11 (23.5)	51 (54.3)
Group B CIPE®	17 (39.5)	00 (0.0)	07 (16.3)	19 (44.2)	43 (45.7)

DISCUSSION

The results corroborate the statement that, although male insertion in the nursing sector has increased, the care field of this profession is still predominantly dominated by women[12].

It was noticed in this study that nurses sought continuing education through graduate studies, improving themselves in the practice sector or in teaching areas. Continuous education comprises all the action developed after the professionalization with the purpose of updating knowledge and acquisition of new knowledge through formal methods[13].

Different diagnoses were identified, classified in different categories of degrees of accuracy. This fact refers to the consideration whether the situation presented had the elements necessary for each diagnosis; for the purposes of analysis, only the elements relating to the high accuracy category will be presented.

The nursing diagnosis Ineffective breathing pattern (00032) depicts the situation of "Inspiration and/or expiration that does not provide adequate ventilation"[7]. Among the defining characteristics listed by NANDA-I[7] for this diagnosis, the following are found in the clinical trial analyzed: dyspnea, tachypnea, nose flare and use of accessory muscles.

In the nursing diagnosis Risk of infection (00004), defined by NANDA-I as "risk of being invaded by pathogenic organisms"[7], the risk factors presented in the case study, in accordance with the diagnosis, are: inadequate primary defenses (ruptured skin; invasive procedure in intravenous therapy and presence of wounds).

The diagnosis of Impaired skin integrity was identified by the nurses as well as the diagnosis of Impaired tissue integrity; in both, the clues justify the high accuracy of diagnosis. The possibility to label one or another is based on the very definition of diagnosis by the NANDA-I taxonomy, upon the conceptualization of Impaired skin integrity (00046)[7] as "Changed epidermis and/or dermis", and Impaired tissue integrity (00044)[7] as the presence of "damages to mucous membranes, cornea, skin or subcutaneous tissues". The statement is based on the concept of the histology of human skin, constituted of epidermis (outer layer) and dermis (inner layer)[14].

Thus, starting from the definition of skin, both diagnostic labels are to be listed by the nurse. Other elements are added, present in the case study, mentioned among the defining characteristics of both diagnoses. Impaired skin integrity (00046) includes: disruption of the surface of the skin and, as internal factor, impaired circulation, which is evidenced by the presence of decreased tibial pulse. The Impaired tissue integrity (00044) presents as a defining characteristic the injured tissue (mucous membranes, skin or subcutaneous tissue), and the related factor, the altered circulation[7].

In this way, the concept of injured tissue is characterized by reversible morphological and functional changes, with or without tissue loss and, in the event of losses, the injury is classified according to its depth: superficial, partial-thickness

and full-thickness[15]. Thus, it is understood that the defining characteristic of disruption of the skin surface, in the Impaired skin integrity diagnosis, is found in this classification as to the depth of the injured tissue. In our view, both diagnoses may be labeled to denote a need of nursing care in the skin, considering the taxonomy used in the study.

Such overlap has led to the revision of nursing diagnosis Impaired tissue integrity[16], which proposes the altering the wording to Impaired tissue integrity and modifying the definition to: "damage to mucous membranes, cornea, skin, subcutaneous tissue, muscle fascia, muscle, tendon, bone, cartilage, joint, ligament and/or capsule"[15]. The Committee that examined such diagnoses suggested[15] the removal of the diagnosis of Impaired skin integrity from NANDA-I taxonomy, since the skin is a tissue structure included in the NANDA-I taxonomy diagnosis Impaired tissue integrity (00044).

The diagnosis of Ineffective peripheral tissue perfusion (00204) means a "decrease in blood circulation to the periphery that may compromise health"[7]. Of the 17 defining characteristics for this diagnosis, four are cited in the case study: edema, diminished pulses, extremity pain and altered skin temperature (cold skin).

When considering the diagnoses made by ICNP®, one should remember that the definition for Risk for infection (10015133) includes "the risk for invasion of the body by pathogenic microorganisms that reproduce and multiply themselves, causing local retinal diseases, secretion of toxins or antigen-antibody reaction"[8]. In the clinical situation studied, the risk factors present are: peripheral venous catheter in the right upper limb and presence of a wound with moderate exudate.

In case of a problem in the in tegumentary system, the possibilities of high diagnostic accuracy statements created by nurses were: Impaired skin integrity (10001290), which means that the skin condition may not be full, intact or diminished; Small heel ulcer, with the term *Ulcer* (10020237) defined as open sore or lesion, loss of deeper layer of tissue, circumscribed crater like lesion, decreased blood supply to the area, red granulation tissue, yellow fat necrosis, wound odour, peri-wound soreness, pain, sloughing of inflamed necrotic tissue associated with inflammatory infectious or malignant process[8].

In the diagnosis Small wound on the calcaneus (10021178), the term *Wound* is defined as: Lesion of the tissue usually associated with physical or mechanical damage; sloughing and tunnelling of tissue; serous, sanguineous or purulent drainage; skin erythema; edema; blistered, macerated and abnormal skin, elevated skin temperature, wound odour, soreness and pain. The tissue erosion diagnosis (10019732) includes loss of epidermis, exposing dermal papilla[8]. Thus, in the case study, the information regarding the presence of small round wound in calcaneal region, with moderate exudate and granulation points, are clues that allow the nurse to consistently list these diagnostic statements.

With regards to Impaired breathing pattern (10001108), the definition is the impaired activity of self-performance. In Ineffective tissue perfusion (10001344), the concept of the *Tissue Perfusion* term of the central axis covers: Movement of blood through periphery tissues for delivery of oxygen, fluids and nutrients at the cellular level associated with skin temperature

and colour, diminishing of arterial pulse, changes in arterial blood pressure, wound healing and growth of body hair[8].

In the case of diagnostic accuracy, high accuracy was more present in the group of professionals who have adopted NANDA-I (Group A) than in the group that adopted the ICNP® (group B). However, the null diagnostic accuracy findings were also present in 23.5% of Group A, in contrast to 44.2% in Group B; such data suggest the capacity deepening and/or development of the diagnostician ability is imperative for high accuracy diagnoses, independently of the taxonomy used.

In relation to diagnostic statements convergences between NANDA-I and ICNP®, these were present in diagnostics that showed changes in the respiratory, circulatory and integumentary systems. It was noted that the wording of the labels, by the terminology adopted, is similar in enunciation and concept. The accuracy of diagnoses listed by the professionals of both groups is attested by the presence of clinical evidence that confirms the accuracy of the diagnoses identified.

Upon considering the correspondence of the nursing diagnoses labeled by different taxonomies, we concluded that there are similarities of diagnosis labels for the nursing care requirements related to the respiratory system mentioned in the case study, particularly in the identification of the diagnoses Ineffective breathing pattern (00032)[7] and Impaired breathing pattern (10001108)[8].

Analyzing the skin as a focus of care, we observed the presence of actual nursing diagnoses and nursing risk diagnoses in both terminologies adopted. In the taxonomies of NANDA-I and ICNP®, the risk diagnosis identified by nurses is convergent between classifications about the statement: Risk for infection (00004)[7] and Risk for infection (10015133)[8].

However, the actual diagnosis that shows changes in skin covers different aspects in each terminology. In the NANDA-I taxonomy, there are two possibilities to list the diagnoses: Impaired skin integrity (00046) and Impaired tissue integrity (00044), as already explained[7]. In ICNP®, after the combinations of the axes focus, judgement and location, the possibilities of creation of diagnostic statements increase: Impaired skin integrity (10001290); Small heel ulcer (10020237); Small wound (10021178) on the calcaneus; and Tissue erosion (10019732)[8].

In relation to the concept of the diagnosis Ineffective peripheral tissue perfusion (00204) by NANDA-I[7] and Ineffective tissue perfusion (10001344) in ICNP®[8], there is an agreement in the definition as regards the reduction in peripheral blood circulation, in both terminologies. It should be also added that in ICNP® the concept of the diagnosis Ineffective tissue perfusion (10001344) mentions signs covered by NANDA-I in the defining characteristics of the diagnosis Ineffective peripheral tissue perfusion (00204).

The five high accuracy diagnostics are included in two of the thirteen domains referred to in Taxonomy II of NANDA-I[7], namely: Activity/Rest and Safety/Protection. In the Domain 4, Activity/Rest, in the class of Cardiovascular/lung responses, there are the diagnoses Ineffective peripheral tissue perfusion (00204) and Ineffective breathing pattern (00032).

In the Domain 11, which covers Security/Protection, in the

Infection Class, there is the diagnosis of Risk for infection (00004); and in the Physical injury class, the diagnoses of Impaired skin integrity (00046) and Impaired tissue integrity (00044)[7].

Analyzing the conceptual tree of the axis Focusin ICNP®, version 2.0[8], the seven high accuracy diagnostic statements created by the participants of the Group B used the primitive terms of the axis *focus*, located in a number of two terms for the concepts: STATUS; PROBLEMATIC ACTION; PROCESS; and just one term in the concept of PHENOMENON OF DIAGNOSIS AND RESULT.

The definition of the term STATUS[8] is "condition of a person in relation to others; on the position of a person". The concept PHENOMENON OF DIAGNOSIS AND RESULT consists in "phenomenon"[8]. The PROBLEMATIC ACTION concept is defined as "action" and the PROCESS concept as "a series of functions or actions to achieve a result"[8].

It should be noted that there are divergences between the classifications concerning the possibility of diagnostic statements to list skin problems. This fact is justified by the very ICNP® classification, because it is a combinatory terminology system with a multiaxial structure. On the other hand, there are similarities in the diagnostic statements, as both classifications use the standard ISO 18104:2003 for the construction of nursing diagnoses, since the diagnostic structure proposed in the two classifications is composed of descriptors of the focus and judgment axes[17].

By the quantity of ICNP® diagnostic statements in the categories of low and null accuracy, we assume that, at the time of productive divergent thinking, the terminology may have favored a greater number of diagnostic statements, by combining a primitive term of the axis *focus* with a term of the axis *judgment* or a descriptor with implicit function in the axes *focus* and *judgment*. Divergent productive thinking aims to conduct a wide search of diagnostic hypotheses; and convergent productive thinking aims at a possible explanation when the data is sufficient to do it[5].

CONCLUSION

In the present study, 66.6% of the professionals from Group A and 58.3% of the nurses from Group B evaluated their own ability to make accurate diagnosis as 70% or more.

However, the findings of the study showed low diagnostic accuracy in both groups, in addition to a diversity of labels for the same situation, with different diagnostic inferences, when both studied taxonomies are used.

It should be highlighted that the professionals were classified as excellent diagnosticians and this self-confidence needs to be discussed among peers, in scientific meetings or education meetings and in the institution itself, with the purpose of providing self-monitoring of the ability to establish accurate diagnoses. Maybe this fact of the study on the low diagnostic accuracy is a reality still veiled in other situations of care and professional training.

Thus, continuing and permanent education in colleges and in health institutions is suggested for the success in the implementation of taxonomies and consolidation of the stages of the caring process.

REFERENCES

1. Pesut DJ. 21st Century Nursing Knowledge Work: Reasoning into the future. In: Weaver CA. Nursing and informatics for the 21st century. Chicago, IL: HIMSS; 2006.

2. Carvalho EC, Jesus CAC, Bachion MM. Raciocínio clínico e estabelecimento dos diagnósticos, dos resultados e das intervenções de enfermagem. In: Garcia TR, Egry EY. Integralidade da atenção no SUS e sistematização da assistência de enfermagem. Porto Alegre: Artmed, 2010. p. 135-42.

3. Bittencourt GKGD, Crossetti MGO. Critical thinking skills in the nursing diagnosis process. Rev Esc Enferm USP [Internet]. 2013[cited 2013 Nov 24];47(2):337-43. Available from: http://www.scielo.br/pdf/reeusp/v47n2/en_10.pdf

4. Risner PB. Diagnosis: Analysis and a synthesis of data. In: Griffin-Kenney JW, Christensen PJ. Application of theories, frameworks, and models. 2. ed. St. Louis, Mosby; 1986

5. Lunney M. Pensamento crítico e diagnósticos de enfermagem. Estudos de casos e análise. Porto Alegre: Artmed; 2004.

6. Carvalho E.C, Cruz DALM, Herdman TH. [Contribution of standardized languages for knowledge production, clinical reasoning and clinical Nursing practice]. Rev Bras Enferm [Internet]. 2013[cited 2014 Dec 14];66(spe):134-41. Available from: http://www.scielo.br/pdf/reben/v66nspe/ v66nspea17.pdf Portuguese.

7. NANDA. Diagnóstico de enfermagem da NANDA: definições e classificação 2012-2014. Porto Alegre: Artmed; 2013.

8. Comitê Internacional de Enfermeiros. CIPE, Versão 2.0: Classificação Internacional para a Prática de Enfermagem. São Paulo: Algol Editora; 2011.

9. Garcia TR, Nóbrega MML. [The ICNP® terminology and the Brazilian ICNP® Centre participation on its development and dissemination]. Rev Bras Enferm [Internet]. 2013[cited 2014 Feb 02];66(esp):142-50. Available from: http://www.scielo.br/pdf/reben/v66nspe/v66nspea18.pdf Portuguese.

10. Matos FGO, Cruz DALM. Escala de Acurácia Diagnósticos de Enfermagem. PRONANDA. Programa de Atualização em Diagnósticos de Enfermagem. 2013; Ciclo 1 (2):91-116

11. Waltz CF. et al. Measurent in nursing research. 2. ed. Philadelphia: F.A. Davis; 1991.

12. Amorim RC. [Gender issue in nursing teaching]. Rev Enferm UERJ [Internet]. 2009[cited 2013 Dec 02];17(1):64-8. Available from:http://www.facenf.uerj.br/v17n1/v17n1 a12.pdf Portuguese.

13. Paschoal AS, Mantovani MF, Méler MJ. Percepção da educação permanente continuada e em serviço para enfermeiros de um hospital de ensino. Rev Esc Enferm USP [Internet]. 2007[cited 2013 Nov 02];41(3):478-84. Available from: http://www.scielo.br/pdf/reeusp/v41n3/19.pdf

14. Domansky RC, Borges EL. Manual para prevenção de lesões de pele. Recomendações baseadas em evidências. RJ, Rubio; 2012.

15. Bryant, R. A. Acute and chronic wounds: nursing managment. 2nd ed. St Louis: Mosby; 2000.

16. Barros KM. Revisão do diagnóstico de enfermagem integridade tissular prejudicada: uma análise de conceito. [Dissertação]. Pós-graduação da Escola de Enfermagem da Universidade Federal de Minas Gerais, Belo Horizonte, 2012.

17. Mata LRF, Souza CC, Chianca TCM, Carvalho EC. Creating diagnoses and interventions under the auspices of different nursing classification systems. Rev Esc Enferm USP [Internet]. 2012[cited 2013 Jan 24];46(6):1511-17. Available from: http://www.scielo.br/pdf/reeusp/v46n6/en_31.pdf