



Validation of the competency profile of the nurses concerning health care

Validação de perfil de competência do enfermeiro para a atenção à saúde

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Objective: to validate the content of competence for health care and its performance criteria. **Methods:** a cross-sectional, descriptive study using Delphi technique and a five-point Likert scale. The sample (n = 26) was composed by experts from Brazil. In order to calculate the content validity index, a degree of agreement was established in $\geq 80\%$. The analysis was performed using simple descriptive statistics. **Results:** the degree of agreement for the competency was 96.2% and 13 criteria were validated. **Conclusion:** the contents of the competence for health care and their respective performance criteria were validated by the participants. Favorable agreement demonstrates the recognition of competence as knowledge and actions in health care.

Descriptors: Professional Competence; Health Care (Public Health); Validation Studies.

Objetivo: validar o conteúdo da competência para a atenção à saúde e seus critérios de desempenho. **Métodos:** estudo transversal, descritivo e com utilização de técnica Delphi e escala de Likert de cinco pontos. A amostra (n=26) foi composta por experts do Brasil. Para o cálculo do índice de validade de conteúdo, estabeleceu-se grau de concordância em $\geq 80\%$. A análise ocorreu mediante a utilização de estatística descritiva simples. **Resultados:** o grau de concordância para a competência elencada foi de 96,2% e 13 critérios foram validados. **Conclusão:** o conteúdo da competência para atenção à saúde e seus respectivos critérios de desempenho foram validados pelos participantes. A concordância favorável demonstra o reconhecimento da competência como saberes e fazeres na atenção à saúde.

Descritores: Competência Profissional; Atenção à Saúde; Estudos de Validação.

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Introduction

The concept of competence for care does not present common meaning in the scientific literature and maintains its polysemic and multidimensional character, ranging from the broadest conceptions, related to the exercise of the profession, to the more specific, related to the performance of a given task. The conceptual framework adopted here is that competence is related to responsible action, with mobilization and integration of multiple knowledge, resources, skills and attitudes in a specific context⁽¹⁾.

Competence is understood as the elemental combination of three components: knowledge, skills and attitudes, as well as those of a social, affective and behavioral character. They can be mobilized together to generate effective, complex and projected action in the future⁽²⁾.

The concept of competence relates to the notion of performance and cannot be confused with it. It is understood as the concrete mobilization of various resources in the execution of the action and depends on individual factors, such as the sensitivity and motivation applied in relation to the collective. The performance is visible, measurable and can be used as an evaluation criterion, capable of proving whether the individual is competent or not in the performance of a given task. From the performance evaluation, the competence model in training can be operationalized⁽³⁾.

The insertion of the competency model in the exercise of the profession occurred through the approval of the National Curricular Guidelines for the Nursing Undergraduate Course in 2001. Intended as a significant milestone for the category, they enabled the incorporation of multiple area knowledge technical-instrumental, ethics and politics in the search for the integration among attention, teaching, service and management of the health system⁽⁴⁾.

In determining the general and specific competencies, the guidelines are used as guiding instruments for the elaboration of pedagogical projects of nursing undergraduate courses in the country and establish a new identity for the general nurse.

In the face of this scenario of changes, there were internal movements in nursing graduation at the Federal University of Mato Grosso - Cuiabá campus, which resulted in the proposal of a survey of the Health Human Resources Observatory of the Pan American Health Organization and the Secretary of Health. The study aimed at building a competency profile based on a broad literature review and using the consensus conference methodology and was prepared and published in June 2010⁽⁵⁾.

The elaboration of the profile considered the work process in nursing, the reality of the undergraduate course and the local and regional health needs. In its construction, teachers, undergraduate students, managers of the Unified Health System and nurses of the health services participated. The document expresses the perspectives of these actors on the training process based on professional experience, specialized literature and through empirical evidence⁽⁵⁻⁷⁾.

The profile is composed of four distinct competencies: "health care, education, administration/management and knowledge production" along with performance criteria. Although the document considers the four competences as essential for the training of nurses, we prioritize in this article, the approach to competence for health care and its thirteen performance criteria, since it is the core component of nursing care, the core of the profession. In this sense, throughout the text, the term care competence in allusion to health care was adopted.

The wording of competence for health care is composed of two parts. The first comprises the text on competence, while the second covers the 13 perfor-

mance criteria and reflects the actions required to act responsibly and are understood as evidence of professional performance.

Although it was produced locally, it is verified that the profile proposed was not submitted to validation by experts in the area of nursing education. Experts are those professionals with vast theoretical and practical experience in the subject.

Currently, it is observed that there is the need for democratic and participatory processes of social actors directly involved in the formation and elaboration of proficiency profiles⁽⁸⁻⁹⁾. Therefore, in order to reach an approximation to the intended object of study, the following question emerged: What is the competency profile for the health care required for the training of the general nurse, from the perspective of experts in nursing education in Brazil? Thus, the objective was to validate the content of competence for health care and its performance criteria.

Methods

It is a descriptive, cross-sectional study using the Delphi method, which allows the collection and synthesis of knowledge produced by groups of professionals who are experts in the field and who have experience in a particular subject⁽¹⁰⁾.

The research was developed by virtual means. The first step was to insert the existing skills profile into the online questionnaire format and make it available on the SurveyMonkey® platform. The platform allowed the sending and receiving of the answers by e-mail. The second step was characterized by the identification of experts in nursing education in Brazil and in the third, the questionnaire was sent to the participants.

Nurses with a doctoral degree in nursing or any area of knowledge, with at least two years' experience

in nursing undergraduate teaching and with relevant scientific production on competencies in national and international journals, were considered experts.

Participants were identified through the Lattes curriculum of the National Council for Scientific and Technological Development, in the "search for curriculum" search box, search mode for "subject" with the terms "competence" and "competences". These filters were used: "nurses", "doctors" and "Brazilian nationality". Incomplete curricula were excluded. It was possible to elect 94 possible participants by reading the curricula that met the established inclusion criteria.

In order to identify as many participants as possible, research was carried out on the official pages of the federal universities that offer the undergraduate nursing course. A total of 38 contacts of coordinators and directors of nursing schools were identified, which indicated two possible participants that met the inclusion criteria. During this stage, pages of outdated courses were found, with incomplete information and non-functional e-mail addresses.

After sending the invitation via e-mail and telephone contact with the 96 possible participants, the non-probabilistic final convenience sample consisted of 26 participants (n=26), who accepted to be part of the study. The period for data collection occurred between April and May 2016.

The application of the Delphi method was used containing a questionnaire with closed questions using a Likert scale, in which participants should choose only one item, among: "I totally agree⁽¹⁾, I agree partially⁽²⁾, I do not agree or disagree⁽³⁾, partially disagree⁽⁴⁾ and totally disagree⁽⁵⁾." In this research, the validity was defined by the degree of agreement of the opinions previously established in $\geq 80.0\%$, according to the answers obtained in the "totally agree" or "partially agree" items that were grouped in a new variable according to the literature recommendations⁽¹¹⁻¹²⁾.

The degree of agreement was obtained in single round Delphi, with no new rounds being performed.

The answers to the competence for health care were analyzed in the light of simple descriptive statistics, by means of a table, with calculation of the agreement proportions for the various items, with their respective 95.0% confidence intervals (CI 95.0%). The interpretation of the degree of agreement was obtained from the analysis of the 95.0% CI greater than 80.0% and the probability of this proportion was not due to chance ($p=0.05$). The literature has used different methods to evaluate the degree of agreement between groups of experts in the validation of questionnaire content; however, the percentage of agreement is one of the most used and allows validating the specific item content of the questionnaire⁽¹¹⁻¹²⁾.

The study complied with the formal requirements contained in the national and international regulatory standards for research involving human beings.

Results

The sample is made up of teachers, mostly female (92.3%), in the age group of 51-60 years (42.3%) and predominantly in the southeastern region (57.7%), followed by the southern region (30.7%), central western (7.7%) and northeastern (3.8%). The time of experience in undergraduate teaching in nursing had a higher prevalence in the range of 02 to 12 years (42.3%), followed by 13 to 23 years (23.1%). In addition to teaching at a higher level, 16 participants

also reported that they performed other functions simultaneously with teaching, coordinating undergraduate nursing courses (46.2%) and exercising activities in the health care area (15.4%).

Table 1 presents the data on the degree of agreement regarding the competence for health care and the respective performance criteria.

The first component of the profile refers to the text of competence for health care. Among the 26 possible responses for this component, 25 points were obtained for the "totally agree" and "partially agree" answers, being approved with a concordance degree of 96.2% with 95.0% CI (82.5%; 99.8%).

The second component refers to the competency performance criteria described. Among the 338 possible answers, 324 points were obtained for the "totally agree" and "partially agree" items.

Seven performance criteria were obtained with a degree of agreement (CI95.0%) of 100.0% (89.1; 100.0). Criteria 9 and 11 presented the lowest degrees of agreement, of 88.5% CI 95.0% (71.7; 97.0). Criteria 9, 10 and 11 did not present reliability regarding the degree of agreement of 80.0% established. However, it is considered that such criteria are valid, since the degree of agreement of 70.0% is commonly used for validation⁽¹²⁾.

The competence for health care and 10 performance criteria obtained the content validity index higher than the established level ($\geq 80.0\%$). Therefore, it is considered that the profile was validated by the study participants.

Table 1 - Distribution of components related to health care competence and their respective performance criteria

Competence: Health care	Degree of agreement					%ICV (CI 95%)	p
	(n = 26)						
	1*	2	3	4	5		
Being able to intervene in the health-disease process by being responsible for the quality of nursing care / care in its different levels of health care, with prevention, promotion, protection and rehabilitation actions to health, with a view to the integrality of care both in individual and collective levels.	20	5	-	1	-	96.2 (82.5; 99.8)	0.039
Performance criteria							
1. Recognizes vulnerabilities and potential risks in individuals, and population groups considering their constraints and determinants.	25	1	-	-	-	100.0 (89.1; 100.0)	0.010
2. Identifies health needs and problems (individual and collective) within a specific context of life and health institution.	24	2	-	-	-	100.0 (89.1; 100.0)	0.010
3. Applies instruments of evaluation and interpretation of health status.	20	6	-	-	-	100.0 (89.1; 100.0)	0.010
4. Diagnoses needs and problems from theoretical methodological assumptions (theories, methods and techniques).	21	5	-	-	-	100.0 (89.1; 100.0)	0.010
5. Recognizes the needs and health problems in their various dimensions considering their expressions and evolutionary phases.	24	2	-	-	-	100.0 (89.1; 100.0)	0.010
6. Makes decisions to deal with problem situations.	19	6	-	1	-	96.2 (82.5; 99.8)	0.039
7. Proposes alternative solutions based on scientific evidence, respecting the conditions of the individual and family and / or collectivity, their knowledge, culture, autonomy and vulnerability.	23	3	-	-	-	100.0 (89.1; 100.0)	0.010
8. It is responsible for the quality of care / nursing care at different levels of health care, from the perspective of integral care.	22	3	1	-	-	96.2 (82.5; 99.8)	0.039
9. Uses appropriate technologies to solve problems / needs.	20	3	1	2	-	88.5 (71.7; 97.0)	0.280
10. A member of the health team is recognized as integrating nursing actions with multi-professional actions.	21	3	2	-	-	92.3 (76.8; 98.7)	0.116
11. Interprets the results of his intervention from indicators of change.	18	5	2	1	-	88.5 (71.7; 97.0)	0.280
12. Evaluates intervention processes based on methods and instruments of interpretation and intervention in health.	21	5	-	-	-	100.0 (89.1; 100.0)	0.010
13. Translates and disseminates the results of nursing work in language accessible to clients (professionals and users).	24	1	1	-	-	96.2 (82.5; 99.8)	0.039

1: I totally agree; 2: partially agree; 3: I do not agree or disagree; 4: partially disagree; 5: totally disagree; ICV: index of content validity; CI: confidence interval

Discussion

The limitations of the study refer to the design of the cross-sectional method, which makes it impossible to establish cause-effect relationships⁽¹³⁾. Regarding the Delphi method, the limitations relate to the selection criteria and the low number of participants, as well as the degree of agreement of the established content validity index.

The results provide subsidies to nursing faculties when formulating health care competency and what performance is expected from academics. It also points out the limits of the nurses' performance in this area and contributes as a starting point for the elaboration of competency profiles aimed at nursing care delivery.

Competence for nursing care refers to the knowledge that can be mobilized and integrated by the students during their formative process to solve problems, deal with varied situations and guide their professional conduct. It has achieved a high level of agreement by the majority of participants and is in line with the pedagogical principles proposed by the national curricular guidelines of undergraduate nursing courses. It has an interface with the Unified Health System in order to focus attention on the prevention, promotion, protection and rehabilitation of health based on the principle of integrality. This principle is translated into daily actions that are established between professionals and users through dialogic relations based on the collective reflection of health practices⁽¹⁴⁾.

The development of the described competence takes place throughout the undergraduate course, and it goes from the academic to the professional. It is composed of elements that permeate from formation to the provision of care, constituting multiple knowledge, skills and attitudes that can be apprehended and developed concomitantly and not in isolation. In this sense, competence is based on the dialogical approach, which considers the need for greater integration between the classroom and the labor market,

based on reflexive practice (action-reflection-action) and with a view to the transformations of reality⁽³⁾.

Regarding the performance criteria, a degree of agreement of 100.0% was obtained in seven items, exposing the experts' agreement with the posture for integral care from the perspective of the Unified Health System⁽¹⁵⁾. These items reflect steps in the systematization of nursing care, understood as a tool that enables the operationalization of care plans. In the context of health care, the stages of identification, recognition, diagnosis, operationalization and application of processes and instruments at the individual and collective level are constitutive of work in nursing⁽¹⁶⁾.

Although some elements of the described performance criteria refer to the field of management, such as decision making (item 6) and teamwork (item 10), it is recognized that nursing care is permeated by different knowledge that intertwine in the reflexive practice⁽¹⁶⁻¹⁷⁾. In this sense, the actions developed within the scope of care are constructed from multiple perspectives, which value the interaction and protagonism of the subjects involved⁽¹⁸⁾.

The low percentage reported by the participants in the degree of partial agreement may indicate the need for further discussion and reflection on the use of appropriate technologies to solve problems and on the use of the results of interventions from indicators of change.

It was observed that in some criteria of performance and even in the writing of competence, there was a low percentage of experts who reported partial disagreement. Although we do not record any scores for the item "totally disagree" and we have a degree of agreement of the content validity index above 80.0% for most of the performance criteria, it is considered fundamental that the profile be analyzed in light of the local reality of teaching in nursing, since the participants were oriented in the instrument, to respond it considering the reality of nursing teaching in their regions of performance⁽¹⁹⁾.

In this sense, it is pointed out that the profile

proposed in this study, although validated by the experts, is only the beginning of a process that does not have to reach the state of final product. The competence described is not silent on the new perspectives of postmodernity, since it is not intended to affirm that it is complete and delineated. On the contrary, the awareness that it constitutes an unfinished process must permeate the reflections of those who intend to use it⁽²⁰⁾.

The competence profile proposed herein reflects the need for productions that deal with its applicability to undergraduate nursing courses. Despite the content validity index of 100.0% in 7 items referring to the performance criteria, it is considered that the reality of health services and the problems faced by the teams are determining factors in the elaboration of proficiency profiles that may reflect teaching aware of the current changes in the labor market.

The originality of the research leads to new studies in this context, where it is expected that the academic community will refute or expand the presented results, contributing to the consolidation of the described competence.

Conclusion

Competence for health care is recognized by the participants as knowledge and care in health care, however, other studies that address this subject in undergraduate nursing and that make revisions of the profile proposed in front of local realities are necessary. The competency described and their respective performance criteria were validated by the experts in nursing education in Brazil and the profile provides assertive assertions that can provide subsidies to pedagogical projects or even be used in the elaboration of competency profiles that have as core nursing care. The data collected also constitute an instrument for future analysis and reflection on the development of competencies for care.

Collaborations

Ormonde Júnior JC and Ribeiro MRR contributed in the design of the project, analysis and interpretation of the data, writing of the article and approval of the final version to be published. Cioffi ACS, Campos LRG and Finger AFA contributed in the analysis and interpretation of the data, article writing and approval of the final version to be published.

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