The Care Process: analysis of Nursing students’ conceptions

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Abstract

Background: Nursing Education requires innovative pedagogical processes, with strategies that promote the students’ learning in training contexts. These strategies should facilitate the students’ development in the care process.

Aims: To analyse the conception of the care process in clinical teaching, using a specific computer strategy.

Main topics for analysis: Thirty critical reflections of 4th-year nursing students were analysed using Microsoft Word 2010. Thirty-four words were selected based on three criteria: semantic meaning, frequency, and theoretical background.

Three themes emerged from the students’ cognitive structure: conception of care, nursing intervention, and care process learning. Full-meaning words were identified: care, person, help, moments, assessment, intervention, skills, learning, and reflection.

The identified words were represented in a concept map of the care process (CmapTools).

Conclusion: The pedagogical process promotes a "continuum" in the students’ acquisition of skills. We identified the conception of the care process in theoretical training related to critical thinking in clinical teaching. Study implication: use of the concept map as a pedagogical strategy to promote self-reflection in students.

Keywords: students; nursing; nursing care; learning.

Conclusion

Contexto: La formación en enfermería requiere procesos pedagógicos innovadores, con estrategias que promuevan el aprendizaje del estudiante en los contextos de formación, que deban facilitar su desarrollo en el proceso de atención.

Objetivos: Analizar el diseño del proceso de atención en la enseñanza clínica, utilizando una estrategia informática específica.

Principales temas de análisis: Se analizaron 30 reflexiones críticas de estudiantes del cuarto año de enfermería, utilizando para ello Microsoft Word 2010, y se seleccionaron 34 palabras de acuerdo con tres criterios: sentido semántico, frecuencia y contexto teórico.

La estructura cognitiva de los estudiantes revela tres temas: concepción de cuidados, intervención de enfermería, y aprendizaje del proceso de atención.

Se identificaron palabras llenas de significado: cuidado, persona, ayuda, momentos, evaluación, intervención, competencias, aprendizaje, y reflexión.

Representamos las palabras identificadas en un mapa conceptual del proceso de cuidados (CmapTools).

Conclusión: El proceso educativo promueve un "continuum" en la adquisición de competencias por los estudiantes. Identificamos: diseño del proceso de atención en la enseñanza teórica relacionada con el pensamiento crítico en la enseñanza clínica. Implicación del estudio: el uso del mapa conceptual como estrategia pedagógica promueve la autorreflexión en los estudiantes.

Palabras clave: estudiantes de Enfermería; atención de enfermedad; aprendizaje.
Introduction

In current nursing education, the pedagogical processes that resulted from the planning of strategies during the students’ learning in various training contexts are determinants to the acquisition of knowledge and development of skills in the care practice (Ordem dos Enfermeiros, 2007; Decreto-Lei nº 115/13).

The growing complexity of contexts and the care provided itself require nursing education to be a process of integration/transposition of knowledge by the students in each context. The better the alternation between the school and health organisations, the most consistent this transposition will be (Amendoeira, 2009; Rua, 2011).

This study focused on the clinical teaching in the nursing degree which takes place in health organisations, with their innovative potential and as a strategy for students to acquire significant learning experiences (Costa, 2008). This study aimed at identifying the knowledge acquired by students through reflection on their practices.

The relationship between the actors involved in care settings is crucial: students, teachers, nurses and patients. On the other hand, the level of demand that these educational activities have for students results from its association with the procedures of a health care organisation that include attitudes, norms and values (Carvalho, 2004).

However, we know that nursing is a profession focused on interactions where each person, taking into account his/her life project, becomes singular in a unique moment of care (Serrano, Costa, & Costa, 2011). For students, these moments are unique and decisive in the reflection and acquisition of knowledge in clinical practice with the awareness of the care provided, aiming at the selection of the best methodologies to meet the patients’ nursing care needs (Abreu, 2007). Therefore, the students’ professional knowledge is built through their interaction with health professionals and their analysis of the nurses’ everyday practices, associating them with their theoretical knowledge in an alliance searching for knowledge (Costa, 2008).

Therefore, this is a learning process in clinical teaching that takes place hand in hand with personal development and autonomy, building on the students’ life experience and associated with their sociocultural itinerary, and representations of themselves and their human and natural environment (Josso, 2002). For that reason, we consider it essential to understand the students’ learning process so that it is possible to acquire scientific, technical and human skills for them to plan, implement, manage and assess nursing activities (Carvalho, 2004). On the other hand, according to Amendoeira (2000, 2004), it is necessary to characterise the care process developed by students during their clinical teaching.

We incorporate the diversity of the students’ nursing activities, based on their interaction with patients. We also take into account the specific knowledge that will enable them to diagnose and plan the work that they perform and control themselves.

From this perspective, significant learning experiences inevitably occur in the course of training between the various activities developed by the student in clinical teaching and his/her different experiences. Thus, more than learning, clinical teaching necessarily implies the conceptualisation of practice (Costa, 2008), which makes it necessary for us to understand what theoretical acquisitions are developed and how students’ conceptions are framed when they provide care.

The way in which the students’ care process is developed in clinical teaching does not always clarify the conceptions acquired from theoretical education. With this being the focus of the study, we intended to analyse the conception of the care process developed by nursing students in clinical teaching using an innovative pedagogical strategy with IT resources.

Dissertation

In Nursing Education, the students’ learning process in a context of clinical teaching is developed for and with the patient, and sustained by scientific knowledge, skills, critical thinking, and behaviours and attitudes that aim at promoting well-being. By admitting a paradigm centred on students as learning subjects, we envision their learning using their own experiences so as to reflect upon and identify the dimensions and the most important moments for the development of the self- and hetero-training processes, in interaction with the different actors involved in clinical teaching contexts (Josso, 2002).

We recognise that it is the work contexts that assign
Meaning to the students' healthcare practices, in the sense that they depend on a cognitive and evaluative dynamics defined within the specific context, and are in contact with a set of material, relational and symbolic factors inherent to the functioning of a health organisation (Abreu, 2007). Moreover, in clinical practice contexts, there are many actors who promote the students' development, including teachers, nurse supervisors, health care team professionals and the patients themselves (Amendoeira, 2009; Rua, 2011). This development is particularly important when considering a pedagogical alliance which facilitates the students' learning because, on the one hand, the actors know the practice settings and, on the other hand, they hold essential knowledge that facilitates this development. In this way, it is essential that all actors in clinical teaching are involved in the students' training regarding the acquisition of care conceptions that are consistent with the current education paradigm, transforming students into the centre piece and the motor of the entire nursing education (Simões, Alarcão, & Costa, 2008).

We strengthen the formative interest for clinical teaching because, according to Costa (2008), this is a privileged learning context for the pedagogical relationship and the development of learning processes which promote the interconnection between theory and practice, with learning and exploration, as a reflective method on reality. This is in line with Serrano, Costa, and Costa (2011), who value the context of clinical teaching as an important setting of knowledge and skills, and a promoter of a reflective practice based on the resolution of problem situations. In this way, these situations are important moments that contribute to the acquisition of knowledge, enabling students to develop a know-how that helps them provide nursing care, together with the use of theoretical knowledge.

From this point of view, in 2002, while commenting on the quality of care, the Portuguese Nurses' Association (Ordem dos Enfermeiros) declared: "The quality demands reflection on the practice - to set out goals regarding the service to be provided and identify strategies to achieve them - which highlights the need for appropriate time to reflect on the care provided" (Ordem dos Enfermeiros, 2002, p. 5). Therefore, in its quality standards, the Portuguese Nurses' Association proposes the clarification and standardisation of ideas and criteria which are associated with the characterisation of the metaparadigm in nursing, used in 1st cycle of studies. It is important to reflect and appreciate with the students the development of their activities in clinical practice settings, comparing them to the frameworks of reference used in the training process so as to reflect on the quality of care provided. On the other hand, the students provide care through the characterisation of what we call "the process of care", which, according to Amendoeira (2000, p. 9), is "a process of interaction where the main focus is the person and where professionals have the necessary expertise to make diagnoses and plan the work that they perform and control themselves".

Therefore, it is essential to explore situations related to the care practice in the teaching-learning process so as to allow the students to develop their critical judgments towards actual cases, moving from the concrete apprehension of a situation to its abstract and conceptual representation (Carvalho, 2004; Abreu, 2007; Costa, 2008). On this basis of reflection, we highlight the practices in the process of care and the conceptualisation of the same, trying to understand what theoretical acquisitions are developed and how students' conceptions are framed when they provide care.

Ethical and legal principles were taken into account, supported by the authorisation to access data bases in a health school so as to consult and analyse documents. However, prior to that, an authorisation to carry out the study had been obtained from the ethics committee. The study was developed taking into account the necessary confidentiality of data and sources, which were secured throughout the process of data analysis and processing.

For the study design, we chose a case study and developed a methodological strategy, using content analysis and a concept map through the CmapTools software (Institute for Human and Machine Cognition. n.d.), to represent the conception of the care process developed by nursing students in clinical settings. We started off by using narrative documents, i.e. critical reflections drawn up in the same context by 4th-year students of the 1st cycle of the bachelor's degree in Nursing.

The organisation of the material and processing of reading according to analysis criteria followed Bardin's methodology (2011): the different stages of content analysis were organised around three
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aimed at identifying

techniques (point g, Figure 1) were tested manually

synonymous or semantically similar. The developed

the exact meaning of words, and they may be

of the units of register is essential to understand

that sentences have larger dimensions than those

word in order to encode the unit of register. The fact

that the sentence as the unit of understanding the

process. Regarding the unit of context, we considered

dimensions of the conception of the students' care

semantic meanings which could become important

perspective, we firstly valued all words with identical

even analyse a class of words (Bardin, 2011). From this

theme words may be retained or, alternatively, we may

bear in mind that every word in the text may be

a semantic level, that is, words. Therefore, we should

hence with meaning related to the concept of care process.
The words were aggregated based on slight semantic

meanings, i.e. words with meaning (Bardin, 2011). We valued the

units of enumeration because we aimed at knowing the

frequency with which words were repeated so as to understand their intensity and the meaning assigned to them by students. Using Microsoft Word 2010, we submitted the list of full words to the corpus of analysis.

The procedure consisted of submitting each isolated word to the document in digital format, through the option search followed by advanced search. Thus, we identified the word and the number of times it was repeated. After locating the word within the unit of context, we decontextualised it through the cut-up technique. The cut-up of the unit of register was performed in accordance with the theoretical frameworks, with the given assigned meaning. The various units of context were organised in an electronic double entry table. This procedure was repeated for each of the 34 submitted words. A new decomposition was later conducted through the cutting-up and agglutination of each full word in a single table. A single table was, thus, rebuilt for each full word. In this way, we achieved the (re)contextualisation through the analysis of the units of context that encompass every full word with equivalent semantic meanings.

In addition to the frequency obtained, we were also sensitive to their semantic meanings, aiming at their theoretical contextualisation.
In this sense, following the representation of the cognitive structure of the students’ process of care through the semantic units already composed by the identified full words, we used the concept map as an epistemological instrument, because, according to Carvalho (2009), it helps to understand the relationship between the conceptual domain and the factual domain of the intended scientific process.

On the other hand, we acknowledge the concept map as a scientific-pedagogical tool that is relevant to nursing education and is able to promote significant learning experiences (Fonseca, Extremina, Ferreira, & Leite, 2010). All of these aspects are supported by the evidence found (Clayton, 2006) when we identified the use of concept maps to assess the students’ knowledge and critical thinking skills, as well as their clinical performance.

Since this study focuses on the specificity of the students’ care process, the concept map was used to represent their knowledge. By doing this, we aimed at associating theory and practice, clarifying key concepts and establishing significant relationships between words which have already been identified and the meaning that students assigned to them through propositions.

It is, therefore, a procedure which, at first, consisted of grouping all full words through the constant referencing in chains: full word - instrument word (liaison word), enabling the establishment of various relationships with meaning that facilitated the construction of a semantic network and the creation of the concept map, using the CmapTools software.

From a comprehensive perspective of data, we analysed the semantic network through significant concepts, words, phrases, and/or propositions so as to organise the students’ knowledge regarding the conception of the care process. Thus, the analysis of this network allows for the representation of full words which bear greater meaning, such as the more general concepts: care; person; intervention; moments; help; learning; reflection; skills; and assessment. This analysis aims at understanding the students’ knowledge by integrating the remaining full words, such as the less general concepts, in the hierarchical representation of the concept map.
In order to structure the processing of results and interpretations (Figure 1), it was essential to analyse the data from the coding tables obtained from the concept map. This was based on the theoretical framework and purpose of the study. In this way, it was possible to find the semantic line driving them and associate them with one another, thus integrating the qualities of the content analysis and the concept map. Therefore, it became possible to identify and represent the concepts bearing the meaning assigned to the conception of the care process developed in clinical teaching by nursing students.

In this sense, the process of word association using the concept map to determine and indicate the correspondences between the students’ messages and the underlying reality was essential to assess the units of the semantic network (Jonassen, 2007). We valued the centrality of each node of the network due to the number of direct connections (nine more general concepts) and indirect connections (less general concepts and others directly associated with them). Thus, we considered centrality as a criterion to identify the importance of these concepts to the student’s care process, structuring it based on the central concepts and their relationships. The arrows in Figure 2 aim at providing visibility to the hierarchical and/or causal relationships found. According to Jonassen (2007), the quantity and accuracy of the pairs of connected words and the quantity of connections between the pairs of words indicate a deep understanding of the connections. We valued these aspects to better understand the students’ knowledge and identify their conception within the scope of the care process.

When we defined the word person, we valued a causal connection, which integrates individuality (as in Figure 2), then extending to a new connection: the knowledge; availability; communication; and to the word listen. Similarly, in the full word care, we observed a causal relationship, but one that was represented in a hierarchical manner. This word had two nodes of correspondence: one that integrated continuity, planning and individuality, and another one directed towards the word provision, which led to priorities, skills and quality. We also observed a causal relationship in the word intervention, which, according to the students, allowed for a representation with quality. We observed two nodes of correspondences: one with the word responsibility and another with the word practice, through procedures and tasks. For the word learning, we identified a causal relationship which occurred through experiences and opportunities, allowing for reflection and self-assessment.

**Figura 2.** Concept map which represents the Conception of the students’ care process.
Therefore, following the identification of the relationships between the more general concepts, the nature of such relationships with the remaining concepts allowed us to represent, through the concept map, what students had integrated as dimensions of the conception of the care process developed in clinical teaching. It was also possible to logically organise all concepts (Carvalho, 2009; Jonassen, 2007), so as to frame the conception of the students’ care process in three major themes: conception of care; nursing intervention; and care process learning. Thus, we were consistent with a line of thought that values the method of the nursing discipline through a process of planned nursing activities, with interventions on patients and their subsequent assessments. Given that learning also requires assessment in the context of clinical teaching, we looked at it from a double perspective from the students’ point of view: on the one hand, the teaching-learning process itself and, on the other hand, the care process developed by the student while interacting with the patient, which is inherent to the first dimension.

In this way, we assume that our results overlap the themes which had been theoretically framed for the Care Process. It seems clear that there is some coherence between the acquisitions in theoretical classes and the conceptions assumed by students in clinical teaching.

Conclusion

In this study, we took into account a comprehensive approach to identify the dimensions that nursing students incorporate in the conception of the care process in clinical teaching. The dimensions identified by the students themselves under the concept «care process» were: care; person; help; moments; assessment; intervention; skills; learning; and reflection. With these dimensions in mind and because we aimed at obtaining the students’ cognitive perspective, the analysis was based on three themes: conception of care; nursing intervention; and care process learning. From this point of view, the students emphasised the organisation of planning of nursing care in the search for the appropriate moment for intervention to the target person. On the other hand, they valued learning the care process, focusing on reflection and the responsibility over the care practices. These aspects, which are considered as integrating concepts in theoretical teaching, also emphasise, in clinical teaching, an appropriation of knowledge, based on the integration and implementation of know-how, inherent to the students’ clinical practice.

Therefore, we recognise the methodological strategy of the concept map used in this study as an important tool of analytical development, given that it had the potential to represent the domain of the students’ knowledge of the care process, by identifying its multiple dimensions.

We intend to build on the results of this study by identifying the (students’) conceptions of the care process for a more reflected clinical practice, with room for the mobilisation of evidence and appealing to critical thinking for an adequate clinical judgment in nursing. These aspects emerge as possible through the adequacy of pedagogical strategies in the various training contexts, such as seminars that promote reflection on practice, use of narratives, computer search and analysis for the development of new contextualised knowledge in students.

The implications for the 1st cycle of nursing training are divided into two levels of interest: at the methodological level, in which we valued the need to identify the nature of the semantic relationships between the dimensions/concepts in a more intensive manner to organise the students’ knowledge, mobilising the information obtained in a progressively more complex conceptual framework; and at the level of the pedagogical process, in which we valued the use of the concept map as a strategy to promote the students’ learning. It also emerges as relevant to the promotion of the students’ self-reflection and acquisition of critical thinking skills.

References


