

Decision making from the perspective of nursing students

A tomada de decisão na visão dos estudantes de enfermagem
La toma de decisiones en la visión de los estudiantes de enfermería

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How to cite this article:

Marques MFM. Decision making from the perspective of nursing students. Rev Bras Enferm. 2019;72(4):1102-8. doi: <http://dx.doi.org/10.1590/0034-7167-2018-0311>

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Submission: 05-10-2018 **Approval:** 09-09-2018

ABSTRACT

Objective: To analyze the decision making of students from a nursing higher school and understand how they make decisions in the care process. **Method:** A qualitative study with an exploratory and descriptive approach was carried out with the case study method. **Results:** Six types of decision making were categorized by the students as follows: Decision about communication (15 record units [RU]); Decision about understanding (14 RU); Decision about intervention (9 RU); Decision about timing (5 RU); Decision about targeting (4 RU); and Decision about management (0 RU), with a total of 47 RU. **Final considerations:** Analysis of the learning diaries showed that students make more decisions regarding communication with patients and understanding of the care situation, than with the acting decision.

Descriptors: Decision Making; Nursing Students; Learning; Nursing Education; Case Study.

RESUMO

Objetivo: Analisar a tomada de decisão dos estudantes de uma escola superior de enfermagem e compreender como eles tomam decisões no processo de cuidados. **Método:** Abordagem qualitativa, de carácter exploratório e descritivo, com método de estudo de caso. **Resultados:** Os seis tipos de tomada de decisão foram categorizados pelos estudantes da seguinte forma: Decisão de Comunicação (15 Unidades de Registo (UR)); Decisão de Compreensão (14 UR); Decisão de Intervenção (9 UR); Decisão de Temporização (5 UR); Decisão de Focalização (4 UR); e Decisão de Gestão (0 UR), num total de 47 URs. **Considerações finais:** Por meio da análise dos diários de aprendizagem, constatou-se que os estudantes tomam mais decisões relacionadas com a comunicação com o utente e com a compreensão da situação de cuidados do que com a decisão de agir.

Descritores: Tomada de Decisão; Estudantes de Enfermagem; Aprendizagem; Educação em Enfermagem; Estudo de Caso.

RESUMEN

Objetivo: Analizar la toma de decisiones en los estudiantes de una escuela superior de enfermería, y comprender de qué modo toman decisiones en el proceso de cuidado. **Método:** Estudio de abordaje cualitativo, de carácter exploratorio y descriptivo, aplicando método de estudio de caso. **Resultados:** Los seis tipos de toma de decisiones fueron categorizados por los estudiantes de la siguiente forma: Decisión de Comunicación (15 Unidades de Registro [UR]); Decisión de Comprensión (14 UR); Decisión de Intervención (9 UR); Decisión de Temporización (5 UR); Decisión de Focalización (4 UR); y Decisión de Gestión (0 UR), sobre un total de 47 URs. **Consideraciones finales:** A través del análisis de los diarios de aprendizaje se constató que los estudiantes toman más decisiones relacionadas con la comunicación con el usuario y con la comprensión de la situación de cuidado que con la decisión de actuar.

Descriptorios: Toma de Decisiones; Estudiantes de Enfermería; Aprendizaje; Educación en Enfermería; Estudio de Caso.

INTRODUCTION

In Portugal, the reform that allowed nursing education to be part of the higher education, created, automatically, the assumption that nursing practice would benefit from this. In addition to the access to other fields of knowledge, the consecration of the purposes of higher education and development of scientific spirit and reflective thinking would allow nurses to adapt themselves to the professional world and changes, and, simultaneously, provide them with the means to learn reality and stand on the professional environment. However, nurses must persist in achieving an increasing autonomy of their decision making⁽¹⁾ in the care context, so that higher education is able to restore the social image of nursing.

The recognition of nurses as decision-making elements was certified by the association of nurses in Portugal (*Ordem dos Enfermeiros* (OE, as per its acronym in Portuguese), in the regulation of skills profile of general care nurses⁽²⁾, defining decision making as a guiding element of the nursing clinical practice. The excellence in nursing care provided to patients, families, and communities will only be possible through a systemic and systematic decision-making approach. The nursing field of competence is based on the extension or replacement of what patients are not able to carry out by themselves, seeking the most appropriate means to succeed.

In the current scenario, the focus of nursing education is limited to the development of skills to allow students to integrate/overcome a range of knowledge⁽³⁾ regarding care. In nursing education, the main concern is the creation of devices that are able to interconnect different teaching methods and promote the development of several skills, thus allowing students to develop an increasing intervention skill on themselves and their work.

Decision making is a basic nursing skill. The cognitive and reasoning process that nurses use in the decision of care to be provided has led to an increasing concern in the teaching of this skill⁽⁴⁾. The basis for an effective decision making begins during the initial phase of the nursing education, when students are taught to make nursing diagnoses and choose appropriate interventions⁽⁵⁻⁷⁾. Clinical training also assumes evidence for decision-making learning, where this skill is developed and strengthened during clinical experiences and transported to clinical practice⁽⁸⁻⁹⁾.

The concern in understanding how nursing students develop their decision-making skills led to a search for evidence and explanatory concepts that would follow their acquisition and construction process⁽¹⁰⁾. In spite of the agreement on the importance of decision making in nursing education⁽³⁻⁹⁾, there are some misunderstandings on the definition and nature of this concept, which may be due to its complexity and change in several contexts⁽⁴⁾. Based on the systematic review of literature carried out by Thompson and Stapley⁽¹¹⁾ to analyze the effectiveness of educational interventions in the promotion of judgment and decision making in nursing curricula, six types of decision emerged as follows: intervention; targeting; timing; communication; service organization and management; and experiential, understanding or hermeneutic. This categorization allows a greater precision of the terms and their distinction⁽¹⁰⁾.

The development of decision-making skills has become an increasing area of nursing education, leading to a strong impact on international studies⁽¹¹⁾. The context of the studies has

addressed from the most appropriate pedagogical methods to teach decision-making^(5,8-9,12-14) up to the type of reasoning used in the decision learning on the care to be provided^(4,7,15-17), as well as the development of this skill throughout education⁽¹⁸⁾.

The range of international studies on decision-making skills in nursing students has shown some reflection in Portugal. However, the lack of national studies⁽¹⁹⁾ associated with a concern on the teaching of decision-making skills led to the development of this theme. Therefore, the present study will allow to maximize knowledge and acquire a better understanding of decision making by Portuguese nursing students⁽¹⁰⁾.

OBJECTIVE

To analyze the decision making of students (third and fourth year) attending a nursing higher school and understand how these students made decisions in the care process of clinical practice contexts⁽¹⁰⁾.

METHOD

Ethical aspects

The present study is part of a study on decision-making learning in the clinical context of the care process, and was approved by the presidency of the Lisbon School of Nursing (due to the inexistence of an ethics committee), with a positive opinion. Previous contact to obtain the authorization of the students to participate in the study and the return of the instrument by the participants implied intent to participate and, for this reason, signing of the informed consent form was not required.

Study design

This was a qualitative study, with an exploratory and descriptive approach. The case study method was used, which was the most appropriate to the research in question⁽²⁰⁻²¹⁾, since according to Stake⁽²⁰⁾, the objective of a case study is to make a social phenomenon understandable through customization. However, from his perspective, it is possible to make generalizations for other cases, especially the naturalistic generalization by learning that allows through the emergent conclusions of the experiences reported. The case study, as a methodological strategy, is based on the importance of the study itself rather than the research method.

For Yin⁽²¹⁾, case studies try to give responses to "how" and "why" for the study object. It is not about a tactics for data collection, but a comprehensive research strategy. Case studies focus on the research of a contemporary phenomenon in its real-life context, especially when there is no clear or evident limit of the phenomenon and context.

Comparatively, both Stake⁽²⁰⁾ and Yin⁽²¹⁾ present similarities in case study characteristics, and both imply a change in the initial questions of the study throughout the entire research process. This conceptual evolution must structure the whole data collection, as well as the review and critical analysis of the documents, where the emergent theory will guide the effective design of the study⁽²¹⁾.

Adapting the case study to the design of the present study, the author tried to understand and characterize how students structured their decision making in the clinical context of the care process⁽¹⁰⁾. The concern about "how" nursing students structured their decision making led to an integrated case study⁽²¹⁾, due to the existence of a single case (decision-making teaching in the nursing undergraduate course of a nursing higher school) and one analysis unit (students)⁽¹⁰⁾.

Sample

A total of 614 students were recruited through a request sent by e-mail. Of these, 47 students replied. The professors of the respective clinical training were also informed about their participation, in order to feel involved and involve students. Inclusion criteria were: students attending clinical training of the third and fourth years of the nursing undergraduate course and agreeing to voluntarily participate in the study. Matters regarding confidentiality and anonymity were ensured. The participants were identified as 3S (students attending the third year of the undergraduate nursing course) and 4S (students attending the fourth year of the undergraduate nursing course), plus a number according to the order of invitation and year of the undergraduate course⁽¹⁰⁾.

Study setting

Learning diaries and field notes carried out by the students attending clinical training of the third and fourth years served as an object of analysis for the study, as a form of report about the situations experienced in clinical practice^(10,22). Qualitative studies involve a range of empirical material, such as personal experience and introspection, describing daily routine and problems experienced, as well as their meanings in the private life of each participant⁽²³⁾, which, in this specific case study, allowed an inside view of the learning situations focused on the care process, patients, and caregivers experienced by the students⁽¹⁰⁾.

The records were carried out by the students according to requests of the specific guiding documents, without interference from the researchers^(10,24). Guidance from the professor responsible for the clinical training was not included, so the students' reports about their experience⁽²²⁾, in the first person, would not be distorted. The content analysis focused on the students' perspectives in the care process, rather than care itself^(10,24).

The authenticity of this type of documentary information⁽²²⁾ was certified by the professors responsible for clinical training who sent most of the documents. The remaining documents were received through personal e-mail and validated with the professors responsible for clinical training, ensuring their authenticity. Data were collected from February to August 2010⁽¹⁰⁾.

Data analysis

During data treatment and analysis, there was continuous redrafting and permanent need for consulting the documents, as a way to respect the meaning of the speeches. The documents were subjected to careful analysis, in a time-consuming

and simultaneous process, which is a characteristic of the data analysis in a qualitative study^(10,25-26).

The documentary analysis of learning diaries and field notes carried out in clinical training was used for the perception of the students on decision making⁽²²⁾.

Learning diaries and field notes of the students were categorized according to the categorization of Thompson and Stapley⁽¹¹⁾ on the different decision-making types, in order to achieve a more comprehensive and holistic understanding^(10,23,26). The purpose of these additional observations was to reformulate the researcher's interpretation⁽²⁰⁾ and clarify possible theoretical guidance biases since the beginning of the study^(10,21).

In a qualitative study, it is of utmost importance that the researcher gets involved in objects and events, in order to evaluate their value as data⁽¹⁰⁾. Therefore, the documentary analysis was systematically organized and reflected in the turning of the main documents, in raw (learning diaries and field notes) to a secondary document that represented the original (analysis resulting from the experiences of the students)^(10,25). The researcher tried, inductively, through the reflection on the data and theoretical problem, to develop the most comprehensive description of decision-making learning in the care process^(10,24). The categorization emerged later, structuring the analytical process and making data understandable^(10,26). The manual process of division in manageable units, synthesis, search for patterns, and discovery of important aspects was carried out through content analysis^(10,25).

RESULTS

The 614 students presented a mean age of 26.9 years and 459 were women, that is, 74.8% of the total population. Of all participants, 37 were attending the third year, with 130 learning diaries, and 10 were attending the fourth year, with 40 records (including field notes and learning diaries), totaling 47 students and 170 records (Chart 1).

After a first reading, the number of diaries to be studied was restricted and the criterion was to analyze the first diary that each student had sent. Whenever detecting that the first learning diary or field note did not provide enough data, thus not helping to understand how students structured decision making, the next or the most appropriate was selected^(10,20).

The study of the decision-making typology that the students described in their records was based on the categorization of Thompson and Stapley⁽¹¹⁾ (Chart 2). The authors categorize six decision-making types: intervention; targeting; timing; communication; management; and understanding, which were used in an analysis of the learning diaries and field notes.

Chart 1 – Frequency of the participating students from the third and fourth years, learning diaries, and field notes according to the total of students per year

Students	Total students per school year	Participating students	Learning diaries/ Field notes
3S	283	37	130
4S	331	10	40
Total	614	47	170

Chart 2 – Types of decisions according to Thompson and Stapley

Decision type	Definition	Example
Decision (intervention)	Selecting interventions	Choosing of a mattress for an elderly patient who was hospitalized with an acute intestinal obstruction
Decision (targeting)	Selecting which patients will benefit most with the nursing intervention	Deciding which patients should wear anti-embolism stockings
Decision (timing)	Selecting the best time for the intervention	Deciding the time to begin health education on asthma for patients newly diagnosed with asthma
Decision (communication)	Selecting which information to collect and inform to patients, families, and nursing team	Deciding how to approach cardiac rehabilitation after acute myocardial infarction in an elderly patient who lives alone, despite having family members living close
Decision (Service organization and management)	Defining or processing the transfer of care	Deciding how to organize a patient transfer for a more effective communication.
Decision (experiential, understanding, or hermeneutic)	Interpreting signs in the care process	Deciding how to reassure a patient who is worried about a possible cardiac arrest after witnessing another patient who had a cardiac arrest

Source: Adapted and translated⁽¹¹⁾

Of the total 47 students, communication decision making had the greatest representation, with 15 record units, followed by understanding, with 14 record units, intervention, with nine record units, and, at last, timing and targeting, with five and four record units, respectively. It is worth mentioning that no student seemed to have made decisions about management in the care context (Chart 3)⁽¹⁰⁾.

Chart 3 - Students' decision-making types according to Thompson and Stapley⁽¹¹⁾

Decision-making type	Frequency by sub-category	Frequency by category
Decision about intervention	9	47
Decision about targeting	4	
Decision about timing	5	
Decision about communication	15	
Decision about management	0	
Decision about understanding	14	

In the category decision about communication, the third-year students showed an increasing confidence level in their communication skills with the nursing team, as well as with patients and how to include them in their decision making^(10,27).

The clinical experience and consequent acquisition of skills seem to be in accordance with this education level, thus making students able to practice/transfer the knowledge acquired⁽³⁾ in their interaction with patients⁽¹³⁾.

Because I was feeling insecure in the beginning, I decided to approach patients who seemed to be willing to talk to me, who would let me lose some of the fears that tormented me in this initial phase. (3S-3)

I began asking for the patient's authorization to "break the ice", to talk with her about the pregnancy and its evolution (3S-8).

The students attending the fourth year were able to involve, with confidence, other healthcare professionals and patients in their discussions on the care to be provided^(10,27), suggested by the cognitive reasoning that these students were able to employ, helping them in communication, teamwork, and social interaction with others⁽⁷⁾:

I sought to validate the information that the patient was supplying and encourage him to ask questions regarding his doubts. (4S-1)

With regard to the category decision about understanding, when students are able to recognize differences among patients, they begin understanding the different clinical decisions that nurses undertake^(10,14-15). This learning shows the understanding that students keep on developing, not only on the clinical situation of care, but also on its value for patients⁽¹³⁾, as mentioned by a student:

I thought that was "their" moment, the moment when parents say goodbye to their children... I thought I should not enter the room, since it would be the first time we would meet each other. I would be a "stranger", because I had never had any contact with them. (3S-2)

Recognizing that the clinical context is more than the sum of the parts, students acquire a great understanding of what they need in order to decide on the care to be provided to patients⁽⁶⁾, when being able to identify patients' feelings in the face of the situation^(10,13).

After reflecting on this subject, I realized that it is not about being benefit to listen to the heart beating or not, but to put pregnant women and healthcare professionals to rest. (3E-29)

Regarding the decision about intervention, in the third year, students start making intervention decisions by themselves, when they face simple situations^(10,27). This result meets the developed, integrated, and applied skill from the several dimensions of students' decision-making process, at cognitive, emotional, and interpersonal levels⁽¹³⁾:

I decided to stay, instead of following the nurse. (3S-15)

At this time, me and one of my colleagues ran to fetch the car and the oxygen bottle. (3S-1)

Students attending the fourth year start involving themselves in more complex clinical intervention decisions, although many of their decisions are made together with the nursing team or clinical tutor, and not independently^(10,27). This decision-making type suggests an openness to patients' experiences in a holistic perspective of the clinical information collected⁽¹³⁾:

This made me to do an evaluation on the client whilst trying not to wake him up. (4S-9)

With regard to decision about timing, some students seem to be able to calculate the best time to develop nursing interventions to patients under their care⁽¹⁰⁻¹¹⁾. This implies knowing the patients and prioritizing their interventions in the face of care needs, resulting in appropriate nursing interventions to carry out^(10,13):

I thought this would be the right time to proceed with the conversation. (3E-7)

The prioritization of nursing care is not specifically associated with decision making on emergency care, but whenever the best time for intervention is selected⁽¹¹⁾, thus preventing complications⁽¹³⁾:

Since F was sleeping and antibiotherapy administration is often painful, which was the case of this child, the best procedure would be trying to give the medication without waking him up, informing the mother about it. (3S-17)

In the decision about targeting, only through knowledge about the patients, whether through the way they often react to care situations, or the understanding of patients as individuals^(9,13), students are able to decide about their interventions searching for the best benefit for patients⁽¹⁰⁻¹¹⁾. Learning to decide also means knowing how to be focused on the care to be provided, going beyond the clinical aspects of the situation⁽²⁸⁾:

I decided to focus my intervention on the relational side, rather than focus on the explanation of the baby's possible cardiac problem. (3S-25)

Whenever I went to their room, I talked and played with T, and tried to gain H's confidence... I got close to H and started asking which toys were on the bed. He started answering and we started playing. (3S-19)

Regarding decisions that students made, most were focused on communication and understanding, followed by intervention⁽¹¹⁾, with no significant differences between the third and fourth years.

DISCUSSION

Decision making has an experimental and developmental nature that validates its teaching in nursing education⁽⁹⁾. Teaching how to decide must meet the increasing complexity of care contexts and promote students' ability to reason about changes in clinical situations, considering the context⁽³⁾ and centrality of patients and families in the care process. At the professional level, nurses are increasingly required to have decision-making skills to provide safe and effective care to patients⁽⁹⁾.

Nursing students have expectations of showing decision-making skills during their educational process, more specifically in clinical practice⁽¹⁰⁾. Expectations that, in order to be met, must be subsidized by the teaching and learning of these skills during nursing undergraduate courses⁽⁹⁾, although decision-making skills in the care process are developed in the clinical practice context^(8,10).

Understanding how students make decisions enables a greater adequacy of the nursing education, maximizing learning situations based on scientific evidence that must support all practices^(4-5,7,9). In this respect, the present study sought to analyze how students made decisions and which decisions they made through their learning diary reports and field notes made during clinical training.

It is worth mentioning the emergence of decision making associated with communication with patients, such as how to subsidize every intervention of nursing students in the interpersonal relationships that they have to establish with patients, pairs, and the entire healthcare team⁽⁷⁾. At the legal level, in a similar way, the association of nurses recommends that general care nurses must develop skills at communication and interpersonal relationship levels^(2,10).

Decision making focused on the understanding of the care situation also stood out in the way students made decisions. The relationship between this decision-making type and the development of critical thinking⁽²⁹⁾ may be close, since the reasoning strategies used in data analysis and interpretation promote clinical judgment⁽⁴⁾. The students' reasoning evolution throughout the course will contribute to the critical analysis that they make on events, thus improving their understanding⁽¹⁰⁾. Behind every decision making is the knowledge level of the students. The combination of theoretical knowledge with nursing care provided to patients, indicating a comprehensive development of their problems or needs⁽⁷⁾, allows students to make decisions on care situations⁽¹⁰⁾. When students increased their clinical knowledge, they were able to convey new nursing knowledge, prioritize nursing interventions, and make decisions on care situations^(10,18).

Recognizing that students made fewer decisions of some types⁽¹¹⁾, such as those associated with targeting, timing, and management of the care process, it is of utmost importance to investigate what leads students to be more focused on some decisions than others, how they determine that they have to make a decision, and how they respond when nursing care to a patient is required^(10,16).

Study limitations

The lack of oral information of the students and participant observation on how students made decisions in the clinical context of the care process may be considered limitations of the present study. Further studies including students attending all four years of the undergraduate course would contribute to a more comprehensive and deeper understanding. The triangulation of researchers was another aspect without response, in order to allow the evaluation of the results by others who had access to the same reality.

Contributions to the nursing, healthcare, or public policy areas

This study on decision-making types that students make (and those they do not make) may lead nursing educators to reevaluate if schools' curricula provide the necessary means to facilitate decision-making development and if students are encouraged to participate in every decision-making type. Knowing the response forms of students' decision making in the face of clinical situations experienced enables the promotion of a pedagogical work with worthwhile learning.

FINAL CONSIDERATIONS

Over the last years, an increasing concern with nursing students' decision making may be noticed, especially at international level, but with no significant representation in Portugal. The importance attributed by studies worldwide seems to have some influence on what has been developed in the national territory.

Decision-making learning in the studied nursing higher school seems to be in accordance with the scientific evidence consulted. Considering what was described on decisions that students made in the care process during several clinical training settings, it seems that students make more decisions associated with communication with patients and understanding of the care situation, than the acting decision.

It is worth mentioning the relevance of knowledge for its integration and coordination, thus enabling the understanding

of care situations. Interpersonal relationships emerge as another of the determinant pillars in how students learn to make decisions, where communication is one of the dimensions of this nursing intervention. The initiative for intervention seems to be one of the areas that need to be better developed in nursing undergraduate courses.

In order to accomplish an active learning of nursing students' decision-making, promoter of critical development, one of the paradigms of the higher education, it is of utmost importance to analyze the curricular drawing in nursing, as well as pedagogical strategies that provide them support.

ACKNOWLEDGEMENTS

To the students who made their learning diaries and field notes available for the valuable contribution to the present study.

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