

# Clinical Decision Making in Greek Public Hospitals: A Qualitative Research Study

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## ABSTRACT

**Introduction:** Clinical decisions are a nurses' daily clinical practice skill that needs to be constantly evolving in order to provide quality patient care.

**Aim:** To investigate the clinical decisions made by nurses working in public hospitals in Greece as well as the factors that influence these decisions.

**Material-Method:** The qualitative research method was used and the information was collected through a semi-structured interview. The sample of the research study consisted of ten nurses working in two public hospitals. The three-phase analysis method was used to analyze the research data: data restriction / data citation / data control and meaning.

**Results:** The study found that nurses make low-level decisions regarding diagnosis, change of medication, as well as providing information to patients about their prognosis and treatment, while they often make emergency decisions and often provide psychological support to patients. The medical-centric model of care and the lack of protocols were identified as factors influencing clinical decision-making.

**Conclusions:** Greek nurses need current nursing duties and responsibilities guidebooks, as well as continuing education and research programs in order to redefine their role, while developing autonomy and clinical decision-making skills in their daily practice.

**Keywords:** Clinical Decision Making; Qualitative; Greece

## Introduction

According to the literature, effective practice of the nursing profession entails cognitive, technical and interpersonal skills, which help the nurse interpret the facts. Nurses are often called upon to make major decisions that will often judge the patient's recovery. In making these decisions the nurse is asked to choose an intervention between two or more options. Thus, decision making is synonymous with selection, converting information into practice as well as being directly related to the stages of the nursing process (Wright & Robicsek, et al. [1]). Decision making is an essential skill for health professionals and a fundamental component of daily clinical practice (Yue et al, [2]).

### Definition of a Clinical Decision

Lancaster and Lancaster (1982) [3] defined decision-making as a systematic, gradual process of choosing between options or alternatives and implementing the final choice in practice. Grainger [4] called decision-making the act of choice. Decision making is also defined as a behavior that leads to making a choice and implementing a course of action among options or alternatives (Palaska & Apostolopoulou, [5]). Nurses' involvement in decision-making results in greater job satisfaction, better morale, improved professional relationships and the provision of quality nursing care (Despins [6]). The nurse being called upon to make decisions on a daily basis may not realize that it is necessary to take into account the values, expectations and preferences of his patient, who, in the final analysis, is the object of the implementation of these decisions (Razieh, et al. [7]). Decision-making theories should be taught in all undergraduate and postgraduate Nursing programs, as well as in continuing education programs (Douw et al, [8]).

### Clinical Decision-Making Process

Decision making is a crucial process that applies to both medical and nursing staff on a daily basis and requires knowledge and experience. It is based on the symptoms and sufficient data obtained from communicating with the patient (Kolostoumpis & Makrygiannaki, [9]). Evidence-based nursing practice is based on the process by which nurses make clinical decisions using the best available research data, their clinical specialization and patient preferences (DiCenso, et al. [10]). Each clinical decision focused on a specific patient-individual and is determined by the conditions under which it is taken, which are classified into three categories: conditions of certainty (when it is known in advance that each decision leads to a specific result), risk (when each decision leads to a set of possible outcomes and each outcome occurs in a specific probability) and complete uncertainty (when each decision results in the occurrence of a set of possible outcomes, but the probabilities of each outcome are completely unknown) (Anevlavis [11]).

### Factors Influencing Clinical Decision Making

The reference to prior knowledge of essential concepts is a prelude to clinical decision-making (Baker [12]), significantly affecting the quality of decision-making (Benner [13]). It is true that health professionals recognize that learning is continuous and that in daily practice they discover challenges that require new knowledge. The knowledge gained makes nurses more capable of critical thinking and applying their knowledge to patient care (Ha, [13]). In addition, the nurse's level of experience has a major impact on the decision-making process. Benner [14] describes a competency acquisition model consisting of five levels: from beginner to specialist. Experienced nurses make different decisions than novice nurses (Bakalis, et al. [15]).

Nurses use intuitive judgment in clinical practice. Intuition is the ability to understand without the need for analysis based on knowledge and experience thus, being a powerful tool that guides decision making (Benner [16]). Intuition helps the nurse act immediately when needed, especially in critical units or emergencies, where they need to evaluate the patient and intervene (Bakalis, et al. [15]). Moreover, the role of nurses in Cardiac Care Units significantly influences clinical decision making due to the work environment and the complexity of patients' problems (Demitzoglou, et al, [17]). Nurses working in Intensive Care Units are responsible for providing basic care and continuous monitoring of seriously ill patient thus, requiring specialized knowledge and technical skills in order to adequately respond to their role (Adamou, et al, [18]).

The nursing profession, due to its multidimensional role, is described as particularly demanding, difficult and stressful (Traub, et al. [19]). Nurses are often called upon to make decisions in a short period of time, often with little information and a high degree of uncertainty (Villa, et al. [20]). The decision-making process causes psychological stress as some decisions can have a major impact on the patient's life (Gunnarsson & Warrén-Stomberg, 2009). Furthermore, health professionals strive to provide the best possible results when it comes to care and treatment. Tasks and protocols are approaches that facilitate documented implementation. However, the vague description of nursing skills performed in specific areas or the lack of protocols leads to confusion amongst professionals, lack of legal structure (Bakalis, et al, [21]), poor cooperation amongst members of the health team as well as conflict in roles and tasks with the end result being inefficiency of providing quality nursing care as well as professional burnout (Lydakakis, et al, [22]).

Nurses' participation in decision-making also depends on the cooperation between doctors and nurses (Palaska, et al. [5]).

Research has shown that low mortality rates in Intensive Care Unit patients were associated with excellent coordination and good communication skills between nurses and physicians [Ludin [23]]. However, it is common for medical and nursing staff to have difficulty communicating. Difficult working conditions and work culture can lead to conflicts between health professionals. Studies have found that the lack of communication and teamwork between health professionals is significantly related to the high cost of patient care [Gunnarsson, et al. [24]]. Last but not least, autonomy is defined as the state of being independent and having full responsibility and authority for one's work and personal time. Nurses' autonomy is self-evident in an organization that trusts nurses, giving them the freedom to make decisions and take action, within their field of knowledge. This freedom is provided legally by the nurses' duties and responsibilities guidebook, the protocols of various departments in the hospitals, as well as the evaluation conducted by Nursing Administration. Autonomy can be divided into decision-making autonomy and executional autonomy-authority.

According to the literature, research includes different methods and examines different aspects of decision making. In Greece, research methods are quantitative and focus mainly on decision making. The present study was based on a quantitative research study conducted by Bakalis, et al [25]. This research study used a reliable questionnaire from the literature which was translated by the double backward translation method and showed very good reliability data (Cronbach  $\alpha=0.711$ ). The most important results of the study were that nurses act:

- Regularly, providing basic nursing care as well as care in an emergency situation.
- Often, referring to the diagnosis of the patient's condition, management, teaching patients / family and supervising nursing students.
- Sometimes, providing information to a patient / family upon discharge, organizing tasks and informing patients about the prognosis.
- None, not making any decisions about the department's budget, requesting more examinations, changing patient's medication and patient discharge.
- So, in order to investigate in depth the clinical decisions that nurses made in Greece, a qualitative approach was chosen, as in recent years there is a shift towards the use of quality research methods for the comprehensive investigation of phenomena in healthcare and especially for clinical decision-making.

## Method

The qualitative research method was used in the present study.

The information was collected through a semi-structured interview. The interview is considered an important tool in research because it gives great flexibility to the researcher; its cost can be relatively low and provides a sense of imminence in communication. The question plan was completed after analysis of the quantitative research results. The data concerning decision-making was collected from the participating Greek nurses, especially in the areas where the percentages showed a low degree of response. The question plan was divided into four categories related to the provision of nursing care (8 questions), education and information (4 questions), organization and administration (4 questions) and finally, research (4 questions).

## Procedure

Due to the Covid-19 pandemic, the interviews were conducted through the Zoom application software that offers video chat with a number of people without a time limit. Once the participant identified himself, if he wished to do so, the camera was turned off and the conversation continued. Initially, the study received ethical approval by the institutional review board of the University of Patras (Greek registration number: 6754). Then, the hospitals were selected (two in total) and letters were sent to each hospital's Director of Nursing. The letters explained the purpose of the study, how the data will be collected, while emphasizing that the nurses' participation is voluntary, anonymous and that the information will be kept strictly confidential. The Directors of Nursing informed the Medical/Surgical Departments and Units about the research study. The nurses who were interested informed their supervisor concerning their participation. For the participants' convenience, the interviews were conducted via Zoom at their convenience and during hours, mainly in the afternoon, when they were available. The duration of the interviews was estimated between 30-45 minutes. There were no technical problems and no interviews were interrupted before completion.

## Sample

In the present study, convenience sampling was used. During this type of sampling, the so-called convenience sample consists of participants who are available or easily accessible. The research was conducted including ten nurses working in two different public hospitals in Greece. Sampling in qualitative surveys should be based on two basic rules: suitability and adequacy. In other words, the sample should be suitable for the interpretation of the phenomenon and should be sufficient, not in quantity, but in providing qualitative information regarding the phenomenon that is studied [Mantzoukas [26]]. In the present study, the participants were nurses working in Pathological Departments ( $n = 4$ ), Surgical Departments ( $n = 3$ ) and Units ( $n = 3$ ). Also, a saturation approach was used in order to indicate that further data collection (and analysis) is unnecessary. The ten interviews from two different

public hospitals in Greece were enough to provide adequate, valuable and important information for decision making. The study was conducted in March and April 2021.

### Data Analysis

The analysis of qualitative data is the most important, but at the same time the most difficult stage of conducting a qualitative study, since the interpretations of the studied phenomena will emerge through this process. Content (relational) analysis was used. Initially, after the data were collected, the interviews were transcribed. The participants' words were recorded verbatim in the form of written text so that they could be coded and then interpreted. The analysis process followed the three-phase process: data restriction, data listing (coding) and checking the data control and meaning.

## Research Results

### Providing Basic Nursing Care

**Question Referring to The Patient's Diagnosis:** Participants seem to recognize the usefulness of diagnosing a patient's condition in order to successfully complete the stages of the nursing process. "A" typically states: "I believe it is the main part... .. If there is no correct diagnosis, we will not be able to proceed with the treatment plan...". Nurses state that they do not make many decisions about diagnosing the patient's condition, so they do not often apply the nursing process. They mention their experience as a tool for the nursing intervention plan.

**Question Referring to the Nursing Process:** The nursing process is not applied, at least in writing, but clearly some use is made of it. "B" states: "... if it means nursing process in writing, no you do not use, this over the years now automatically is done in your mind...», while "C" claims that "... No, it's different what you learn in school about the goals, for example than what is really going on in the workplace." They specifically state the reasons that prevent health professionals from completing and structuring the stages of the nursing process. "It is something that in the hospitals and in our hospital as well, the nursing process is not used at all due to lack of staff and due to the large number of patients. Unfortunately ....."

**Question Referring to the Autonomy of Nurses:** It seems that participants working in medical/surgical departments do not have a high degree of autonomy as opposed to a nurse working in an intensive care unit. "D" states: "in the unit we have a high degree of autonomy, because we charge a patient for referrals, especially in the mornings, so you are given the opportunity to organize the nursing care almost autonomously. Always while in alliance with the medical staff but in general there is great autonomy ...." The degree of nurses' autonomy is obviously influenced by the medical

staff. Says a nurse: "it depends on how much the doctors trust you", while "E" states that: "I do not think we have a great deal of autonomy as nurses. I do not consider myself autonomous in my work environment, we are constantly following orders".

**Question Referring to Patients' Psychological Support:** Nurses say they often provide psychological support to patients. They consider providing psychological support directly related to basic nursing care and as a result it is included in their daily duties. They report "it is done on a daily basis, constantly, every moment...", "it is done constantly, every day, I think, together with the treatment, it is done at the same time as this" and a nurse working in an Intensive Care Unit states: "in the units most patients are intubated and have no contact but when they are extubated, well, then is when we provide a great deal of psychological support".

**Question Referring to the Factors That Prevent Providing Psychological Support To Patients:** Nurses cite increased workload as the main factor that prevents providing psychological support, as well as the patient's family, lack of time and decreased nursing staff.

**Question Referring to Clinical Protocols:** The nurses revealed that there are no organized protocols in the medical / surgical departments. The actions they perform are governed by the task which in most cases is not observed, "... not observed, there are serious staff shortages and we all do everything", "...unfortunately they do not exist yet; along with the duties and responsibilities guidebook which exists but it is very vague, and as a result I consider that we are lagging behind as a nursing profession in general.... ".

**Question Referring to Medication:** All participants state that they are obliged to administer any medication following a written medical order since the drug is legally part of the treatment and therefore is a medical decision. In cases where they would not agree, "F" states: "I would file my objection in writing but I would still administer the medicine..", while "G" who works in the unit states that in the absence of a doctor "... because of my many years of experience in the unit and continuing education I will administer any preparation, I will also perform CPR in order not to put our patient in danger".

**Question About Participating in the Doctor's Decision to Discharge a Patient:** Nurses working in medical / surgical departments state that they do not have the power to decide on a patient's discharge since these decisions are made solely by the medical staff. They can indirectly intervene in any report of the patient's treatment by informing the medical staff. On the contrary, a nurse in the Intensive Care Unit states: "yes, we participate because before a patient leaves, the medical and nursing teams meet and the decision is made for the patient to be discharged or not".

## Organisation and Management

**Question Referring to Management:** The organization and management of the department depends on the hierarchy, since the person who sets the guidelines and organizes the staff is usually the department or shift nurse manager. More specifically, "H" states: "Someone senior in the department takes the initiative and is responsible for the department so he will give orders and organize tasks." "J" states: "... the orders do not have to do just with the nursing staff ..... they have to do deal with the auxiliary staff such i.e. patient transporters, as to how and when they will work, other departments in the hospital such as radiology, microbiology, with the cleaners, the ward assistants; with everyone". "I" states: «Everything falls into place from that one person who supervises the department during that specific shift. ... it cannot be done differently and since everything is organized the doctors become a part of the series of events and are organized as well. They do not do what they want, whenever they want to..... everything is done after consultation.....". "D" adds: "This depends on the rank you have during each shift. There is a supervisor in the department, who will tell you exactly what to do. If now, you are a nurse in a team and you tell your colleague in a nice way that today I will do this and you will do that in order to divide tasks, yes. But this does not always happen. This depends on your rank as well as the rapport you have with your colleagues".

**Question Referring to Requesting More Exams:** The participants claim that it is only the doctor who will decide for the patients whether or not they have an examination. Nurses often make decisions, especially when they are in charge of departments, to schedule and organize examinations depending on which examination needs to be preceded by another. Characteristically, they state: "these examinations are not done with the decision by a nurse. That is, to be determined by the nurse or the head of the department or the person in charge of the shift, the only thing you can do, is if there are many exams to organize the time, when each one will take place, so there is no confusion".

**Question Referring to the Medical/ Surgical Department / Unit's Budget:** Decisions about the budget of the medical/surgical department / units are supported by the participants but are made exclusively by the hospital's administration and the department manager. Nurses do not have the opportunity to participate in such decisions "I consider that we are not given the opportunity to participate in these decisions since they are made from personnel in higher positions and we have no right to such decisions unless we are in a managerial position...". The report of a nurse who refers to the way the budget is distributed in public hospitals is interesting since "The primary responsibility lies with the directors of the nursing services. If they submit budgets, the administration will have to implement them. In our department, the budget is

determined by the supplies the department needs .... such as, how many IV's we need, syringes, needles etc. The worst of it all, is that it has nothing to do with equipment such as beds or chairs and their replacement ..... this is a setback...".

**Question Referring to Assigning Tasks to Staff:** Nurses, who are in charge of the nursing team, organize the work of others which is something that depends on the schedule and hierarchy. As supervisors, they organize and assign tasks to others and make decisions while performing the duties of the nurse manager. "The supervisor is the nurse manager for that particular shift ... and everyone follows their orders as if they would follow the department nurse manager's orders. This is fortunate for us since hierarchy is followed ...". The nurses report that they have a good professional relationship with each other: "... very good, I believe it is the key part of our work, the most important I would say...", while "H" states that: "... the relationships with colleagues are based on mutual respect and understanding and their goal is to do the job as smoothly as possible...".

## Education and Information

**Question Referring to Patient Education as Part of the Treatment Plan:** The participants claim that they moderately educate patients about treatment plans. The part that the nursing staff focuses on the most is informing them about the treatment "we inform them with what we know and what is going to happen, and anything that does not fall within our duties we refer to the doctors...", another nurse states: "we do not train the patient for the treatment plan.... we just inform him about what he does not know... we will train a patient when it is time to leave, to be discharged...". Also, someone else says that "... initially, the information is provided by the doctors but because the relatives always want to hear everything a second and third time since something may not stay in their mind, they ask for further explanations every time they come in contact with the nursing staff ... ».

**Question About Informing Patients Concerning Their Prognosi:** The answers to the questions referring to patient treatment and information concerning the prognosis present the low level of autonomy in nurses' decisions. For example, a nurse says "The doctor only discusses why we have not been granted this right and in fact many times we have come to a conflict. That is wrong ..., a conversation that can be understood differently by a patient's relative and different from what the doctor tells him .....a doctor may use other words and the relative may have heard something different from the nurse... there have been misunderstandings, because the relative said "but I was told this, how can you tell me now... is the situation so serious?....", another completes "This is what the doctor decides, how long it will last and what the treatment involves. We can express our opinion; if we are

very close to the patient, we can say some things. If a patient comes in today, you should not sit down and tell him anything ... the doctor is the one who informs him ...". Another nurse mentions that: "... essentially the doctor informs the patient and we assist in some clarifications concerning the nursing part...". It is interesting that the nurses believe providing information referring to the prognosis is not part of the nursing duties, in particular they state: "this is more of a medical concern, I cannot say that as a nurse I have the right to inform a patient about the prognosis; I'm not a doctor; I do not know everything, I just have to keep a patient calm with whatever I say".

**Question About Providing Information to Patients During Discharge:** The nurses' answers confirm that providing information, education and teaching to the patient and his family is an important aspect of care "Yes, of course, I can say whatever he wants and this is done.... For whatever he or his family needs. Clearly the doctor gives the initial instructions but then the nurse takes over in order to tell him exactly what he will have to do...".

**Question Referring to the Supervision of Newly Appointed Staff and Nursing Students:** Nurses often supervise newly appointed staff and are willing to integrate them into the new environment with whatever this may include, such as "training", "information" and "support". Someone says "... ..the most suitable person for supervising the newly appointed staff would be someone higher in hierarchy or even better, a nurse who would have been appointed solely to train the newly appointed staff" while "E" believes that "... normally we should go through theoretical and practical training seminars ... for a period of 2-3 months, depending on the department .... with the Hospital's Training Office taking care of all this...". As far as nursing students are concerned, the participants supervise and guide the students quite often.

## Research

**Question Referring to Participation in Conducting Research Studies:** Nurses are rarely involved in research work, "Moderate I would say due to increased workload and family obligations; would not be as much as I would like... anyway." "Rarely; only if someone comes to the department and hands out pamphlets or questionnaires for us to complete".

**Question About Attending Conferences / Seminars in the Health Field:** It seems that the nurses regularly attend seminars and conferences: "Quite often I would say, since I try to keep up with what is happening in the health area and to be aware of new developments ..." while another nurse says: "... Whenever there is a seminar regarding my department or field of interest I try to participate; I would say, on average, 3 a year".

**Question referring to the Reasons for not Participating in Research Studies:** The nurses considered their increased

workload, lack of time, the circular working hours as well as their colleagues' indifference, as the main factors they do not participate in conducting research studies.

**Question Referring to the Role of Research in Nursing Science:** They agree that research always offers new knowledge and should be a key part of nursing science, since "research will help us go one step further and not constantly stay stuck in the old ways and without research we will never achieve this", while another nurse mentions "...I believe that as nurses we should not remain still because nursing as a science is not stagnant and something new is constantly being found."

## Discussion

In the present research study, the degree to which nurses working in public hospitals in Greece make decisions is examined. The interview questions that were the subject of the study referred to nurses' clinical decisions regarding the provision of basic nursing care, organization and administration, training and information as well as their attitude towards the research part of the nursing profession. During their daily clinical practice, nurses appear to make low-level decisions regarding diagnosis, prognosis, treatment progression, and medication change. The medical-centric model of patient care and the insecurity that nurses feel when they are called upon to answer patients' serious questions, are the main factors for the outcome of these results. With regard to basic nursing care, research has shown that although nurses recognize the usefulness of nursing diagnosis and consequently the nursing process, they do not apply it. In particular, they report that the increased workload and lack of staff are some of the factors that prevent them from designing a care plan that will adequately meet the stages of the nursing process. The literature mentions the importance of the nursing process, which is the way of thinking and acting in order to identify the patient's problems in an organized method and aims to meet the patients' needs (Carter, et al. [27]).

In addition, the data show that Accident and Emergency Department nurses make a large number of clinical decisions that are often not included in their duties. They also admitted that there are no organized protocols in the medical / surgical departments and the schedule is unclear and as a result nursing staff often exceeds their duties by performing medical tasks or members of the auxiliary staff perform nursing duties. Similar results were reported by Demitriadou, et al. [28]. It is necessary for nurses to perform professional duties in an autonomous way, without contradicting legal standards and to establish a current, complete and clear program that will cover the nursing area.

Furthermore, nurses do not consider themselves responsible for changing patients' medication nor do they make decisions about discharging patients. The autonomy of nurses depends

on their relationship with the medical staff as well as on the type of department they work in. There was a greater degree of autonomy in a nurse working in units than in nurses working in medical / surgical departments. The educational and informational dimension of the nurse revealed that they do not make decisions concerning patient education regarding the treatment plan and information about their prognosis. The lack of clinical protocols, as well as, current duties and responsibilities nursing guidebooks create nurses who are “passive” in making such decisions, since they consider it is not a nurse’s duty to provide patients with information about their prognosis and treatment. Finally, it is worth mentioning, in terms of research and continuing education, that although nurses recognize the importance of research in nursing science, they do not participate in research studies very often due to their increased workload and lack of time. Researchers cited factors that prevent and perpetuate the gap between nursing research and nursing practice to be the difficulty in seeking, accessing and understanding research findings, lack of motivation and resistance to change (Klogianni [29]).

### Limitations and Strengths of Research

The small sample size is a qualitative study characteristic rather than a limitation. The results of the study provided important data on which decisions are made as well as the factors that influence these decisions. It seems that qualitative research approach produces the detailed description of nurses’ opinions, experiences and interprets the meanings of their clinical decisions, allows nurses to explain the rationale behind their actions, and finally has a flexible structure as the design can be constructed and reconstructed to a greater extent.

### Conclusion

The results of the research study showed that nurses do not often make decisions about what is related to the treatment plan, which proves that the nursing diagnosis is not used and is not applied. It is true that health professionals are called upon to take on new roles on a daily basis, having to deal with a number of important problems and shortcomings, resulting in a significant impact on which clinical decision making. The lack of protocols, legislative or laws and staff lead to the limited autonomy of the nursing profession. It is clear that there is an urgent need to redefine the role of the professional nurse in order to provide quality patient care and verify the expectations of those who have chosen to serve this profession.

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