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Research Article

CLINICAL DECISION MAKING: A COMPARISON BETWEEN GREECE AND FINLAND

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ABSTRACT

Background: Clinical decisions made by nurses daily are an important element in providing the best possible quality care to patients.
Aims: The purpose of this study was to explore and compare Finnish and Greek nurses' clinical decisions made in medical, surgical, and critical care settings.
Materials and Methods: Data were collected using a clinical decision-making questionnaire (CDMQ) from the literature. A total of 330 questionnaires were collected (169 from Finnish nurses and 145 from Greek nurses), from three public hospitals in Finland and three in Greece. The study was conducted from March to June 2020. The results were analyzed using the statistical program SPSS 23.
Results: Study results demonstrated that Finnish nurses make better clinical decisions regarding the provision of nursing care ($p < 0.05$), supervision and administrative decisions ($p < 0.05$) as well as decisions related to the nurses extended role ($p < 0.05$). In addition, there were differences in the clinical decisions made by nurses in the medical, surgical and critical care settings and specifically regarding decisions related to emergency interventions ($p < 0.05$), change in medication ($p < 0.05$), offering discharge information to patients/families ($p < 0.05$), scheduling additional examinations and discharging patients($p < 0.05$).
Conclusions: There is an urgent need to establish up-to-date legally recognized nurses' duties and responsibilities in Greece, hire adequate nursing staff and implement the nursing process to help nurses improve their clinical skills and consequently offer quality nursing care.

INTRODUCTION

Ensuring high quality care and minimizing errors requires a systematic approach that covers all stages of the design and implementation of nursing care. Nurses critical thinking skills are very important because they lead to precise clinical decisions and better quality care[1]. With the implementation of critical thinking, nursing diagnoses are easily identified, difficult and complex problems related to the patients' care are addressed. Critical thinking is also applied in preventative care for the healthy individual[2]. The current belief in Nursing is the need for professional recognition as an independent scientific field, without of course affecting the cooperation and mutual respect that should prevail among scientists of all health professionals[3]. This goal has already been achieved in most developed countries around the world where nurses work as independent professional both in the hospital and in the community.

Demographic information regarding Greece and Finland

Greece is a European country, located at the southern tip of the Balkans and covers an area of 131,986 sq. Km including mountains, forests, and lakes, and islands. Greece has 10,724,000 inhabitants, with a life expectancy of 83.7 years[4]. The climate in Greece is predominantly Mediterranean, with the average annual temperature ranging from 16 to 19 degrees Celsius. Finland is located northeast of the Baltic Sea and covers an area of 338,145 km2 and its landscape is mostly flat. It has thousands of lakes that cover 50% of the land of the southern region. Finland has a population of 5,543,000, with a life expectancy of 81.79 years[5]. The climate in Finland is generally very cold, with an average annual temperature ranging from 1-6 degrees Celsius.

Health system in Greece and Finland

The health system in Greece has a biomedical orientation which argues that disease can be fully explained based on deviation of biological variables from the norm. In 1983 the

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National Health Service was introduced resulting in an increase of public nursing facilities and a reduction of private ones. However, this increase was not followed by a corresponding growth in nursing staff and modernization of nursing education. There have been several attempts to upgrade the NHS in Greece up to 2010, but the economic crisis that has affected the country for the past 10 years has not helped to highlight the positive elements of this effort. On the other hand, with the Covid-19 pandemic, the government hired medical and nursing staff to meet increased needs, mainly in Intensive Care Units and Covid Clinics, while creating more nursing specialties[6].From an administrative perspective, the health services are directed by the Ministry of Health and operate at two main levels: Primary Health Care is provided mainly by Health Centers (they are the first to serve the health needs of the community) and Secondary-Tertiary Health Care is provided by Regional hospitals and offer highly specialized staff and equipment.

Finland's health system is based on the holistic model of health, which argues that in addition to physical symptoms, psychological, social, and biological factors must also be taken into account. Public health care is available to all residents in Finland, regardless of their financial status. Public health services include Primary Health Care provided by municipal health centers as well as specialized hospital care[7]. In Finland, Primary Health Care (Health Centers) aim at preventing illness, promoting nursing care in the community and promoting patient rehabilitation. Public hospitals in Finland are fully equipped with medical equipment and state-of-the-art computers[8].

Nursing education in Greece and Finland

Nursing education in Greece has been developing rapidly in recent years at a higher education lever (4-year study program), offering graduate nurses a degree in Adult Nursing. Nursing education focuses on educating students through the provision of up-to-date scientific knowledge, on a theoretical, laboratory and clinical basis. Courses that reflect modern nursing practice are taught while cultivating analytical and critical thinking skills[9]. The curriculum is comprised of 50% theory and 50% practice. All university nursing departments in Greece offer postgraduate studies at master's and doctoral level.

In Finland, nursing education lasts three and a half years. These programs are provided by universities of applied sciences. Graduate nurses should be able to apply this knowledge to their work in practice, have the ability to conduct research, obtain and manage information, be accountable for the care they provide as well as, make appropriate clinical decisions[10].The curriculum is comprised of 50% theory and 50% practical education[7]. The development of critical thinking and leadership skills are an important aspect of their education. Students, at a very early stage in their academic life evaluate clinical cases and make clinical decisions[11].

Clinical decisions

Several studies have determined that clinical decision making is imperative for health care providers[12,13]as they strive to provide the best possible care outcomes[14]. Clinical and procedure guidelines assist nurses in implementing science-based care[15], however decisions made by nurses should be based on clinical research as well as their ability to evaluate such research[16].

During a shift, nurses make a variety of complex and important decisions[17]. Thus, it is important that these decisions are correct and help solve problems. Nurses use critical thinking to gather information, make judgements and decisions. Education plays an important role in decision making[18]. Thus, it is important for nursing students to learn these techniques from the beginning of their nursing education[19].

Similarities and differences between Greek and Finnish Nurses

The main similarities are:

- Nurses make decisions daily in the clinical setting in both countries.
- Nursing education is at university level.
- Both offer the possibility of postgraduate studies (MSc, PhD).
- Both health systems offer their citizens insurance and care.
- They are both relatively small countries regarding their population.
- They have a common European currency.
- They are autonomous countries.
- They have similar insurance and taxation.
- Nurses can work as freelancers in both countries.

The main differences are:

- Finland's healthcare system is better developed due to greater funding (8.2% of GDP).
- In Greece primary health care is not particularly developed in contrast to Finland
- The nurse's role in Finland is multidimensional (research, care, administration, education), while in Greece it is mainly limited to patient care and education.
- In Finland, team nursing is used as a method of organizing nursing tasks, while in Greece a functional - task orientated nursing approach is implemented.
- Regarding nursing duties, nurses in Finland are authorized by the government and organizations to take initiative and make clinical decisions while in Greece duties are vague restricting nurses' initiatives.
- Both countries have differences in geographical boundaries (south, north) and climatic conditions (cold-hot climate).
- The economy in Finland is evolving significantly while the Greek economy is recovering the 10-year economic crisis.
- The purpose of this study was to explore and compare Finnish and Greek nurses' clinical decisions made in medical, surgical, and critical care settings.

MATERIALS AND METHODS

It was a quantitative comparative research. The study was conducted from March to June 2020. Nurses' decision-making abilities were quantitatively evaluated using a clinical decision-making questionnaire (CDMQ)[20]. This questionnaire consists of 15 statements, related to aspects of nursing practice such as direct patient care, supervision and management decisions, as well as decisions related to nurses' extended roles. All 15 statements were answered using a four-point

Likert scale ranging from 1 to 4 (1= regularly, 2 = often, 3 = sometimes, 4 = not at all).

Aspects of nursing practice that were evaluated included:

- Direct Patient Care: Q1, Q3, Q4. Q6, Q13
  (5 out of 15 statements from the CDMQ)
- Supervision and management decisions: Q2, Q9, Q10, Q11, Q15
  (5 out of 15 statements from the CDMQ)
- Decisions related to nurses' extended roles: Q5, Q7, Q8, Q12, Q14
  (5 out of 15 statements from the CDMQ).

Since health professionals in Finland speak English very well, the research team decided that questionnaire would be distributed in English. For Greek nurses, however, the questionnaire was translated into Greek using the forward and backward translation method. Specifically, the research team translated the questionnaire from English to Greek. The reverse translation was then performed by an English teacher with many years of experience, fluent in both languages, who confirmed the translation process and made minor corrections. The final version of the Greek questionnaire was ready for use.

Ethical considerations

All procedures were performed in compliance with relevant laws and institutional guidelines. This study received ethical approval by the institutional review board of the University of Patras (Greek registration number: 7601).

Participants

A convenience sample of Registered Nurses was recruited. The total study sample included 314 nurses (169 nurses working in Finland and 145 nurses working in Greece). Specifically, regarding the 169 nurses working in Finland, 71 nurses worked in the medical setting, 63 in the surgical setting and 35 nurses in the critical care setting. Similarly, for the Greek subset of 145 nurses, 58 were occupied in the medical setting, 52 in the surgical and 35 nurses in the critical care setting.

Due to the Covid-19 pandemic and restrictive measures in place, questionnaires were distributed via electronic form (Google forms). Google Forms is an online software that allows researchers to create surveys and send to others for completion easily and quickly. Hospitals (3 public hospitals in Finland and 3 in Greece) were selected using convenience sampling.

Letters providing information of the study were sent to each hospital and specifically to the directors of nursing and upon their agreement the questionnaire was uploaded to the hospital's website. Nurses who had access to the hospital website (using their access codes) and wished to participate in the study were able to complete the questionnaire.

The first page of the questionnaire explained the purpose of the study, the data collection process and questionnaire completion guidelines. Also, information regarding nurse's anonymity, confidentiality and voluntary participation were included. Participants who agreed to join the study completed the questionnaire.

Statistical analysis

The Cronbach's alpha reliability coefficient was employed to test the internal consistency of the questionnaire, considering as a satisfactory value a threshold of 0.70. The Kolmogorov-Smirnov test was utilized to investigate the normality in the distribution of data, setting the significance level p-value < 0.05. Descriptive analysis was used to describe the samples and non-parametric analysis was employed to test the existence of statistical differences among the subset groups. Specifically, the Kruskal-Wallis U-test (k independent samples) was employed to investigate statistical differences among the subset groups (medical, surgical and critical care). Mann-Whitney U-test was also used to test the statistically significant differences between Finnish and Greek nurses. Finally, Pearson's correlation was also utilized to assess the relationship between variables. The data were analyzed using the SPSS v.23.0 software.

RESULTS

Finnish subset

Cronbach's alpha reliability coefficient

The reliability analysis for the subset of Finnish nurses, revealed that the Cronbach's alpha coefficient for the questionnaire was 0.728. This value is over the threshold value of 0.70, and thus is acceptable revealing that the questionnaire is characterized by consistency.

***Descriptive Analysis:* demographic characteristics - Finnish sample (n_F=169)**

Finnish nurses age ranged from 23 to 63 years old with a mean ± standard deviation of 40.30 ± 11.03 years.

Table 1 Frequency of each of the 15 statements of CDMQ – Finnish sample (n_F=169)

CDMQ	regularly		often		sometimes		not at all	
	frequency	percent (%)	frequency	percent (%)	frequency	percent (%)	frequency	percent (%)
Q1	108	63.9	24	14.2	12	7.1	25	14.8
Q2	41	24.3	71	42.0	43	25.4	14	8.3
Q3	121	71.6	36	21.3	12	7.1	0	0.0
Q4	60	35.5	74	43.8	34	20.1	1	0.6
Q5	27	16.0	56	33.1	86	50.9	0	0.0
Q6	98	58.0	62	36.7	9	5.3	0	0.0
Q7	41	24.3	50	29.6	52	30.8	26	15.4
Q8	38	22.5	53	31.4	49	29.0	29	17.2
Q9	51	30.2	56	33.1	54	32.0	8	4.7
Q10	48	28.4	73	43.2	46	27.2	2	1.2
Q11	3	1.8	13	7.7	21	12.4	132	78.1
Q12	8	4.7	22	13.0	46	27.2	93	55.0
Q13	61	36.1	61	36.1	36	21.3	11	6.5
Q14	5	3.0	30	17.8	46	27.2	88	52.1
Q15	40	23.7	43	25.4	62	36.7	24	14.2

Table 2 Kruskal-Wallis test – Finnish Subset

Total Finnish subset (n_F=169)							
CDMQ	Medical (n=71)		Surgical (n=63)		Critical Care (n=35)		Kruskal-Wallis
	mean (M)	std (SD)	mean	std	mean	std	(p-value)
Q1	1.94	1.24	1.63	1.02	1.46	0.92	0.101
Q2	2.15	0.92	2.21	0.84	2.17	0.95	0.888
Q3	1.45	0.71	1.40	0.55	1.09	0.37	0.005*
Q4	1.82	0.74	1.87	0.75	1.91	0.78	0.839
Q5	2.41	0.71	2.59	0.64	1.80	0.72	0.0001*
Q6	1.42	0.58	1.44	0.53	1.63	0.73	0.388
Q7	2.35	1.04	2.60	0.99	2.00	0.91	0.025*
Q8	2.34	1.03	2.49	1.00	2.40	1.06	0.692
Q9	2.14	0.85	2.13	0.85	2.03	1.07	0.686
Q10	1.96	0.76	2.02	0.77	2.11	0.83	0.677
Q11	3.73	0.58	3.67	0.72	3.54	0.85	0.539
Q12	3.62	0.59	2.95	1.02	3.40	0.85	0.0001*
Q13	1.72	0.86	2.00	0.80	2.49	1.01	0.0001*
Q14	3.25	0.92	3.29	0.77	3.34	0.91	0.800
Q15	2.31	1.05	2.52	0.91	2.43	1.07	0.433

**Statistically significant difference (p-value<0.05)*

Table 3 Frequency of each of the 15 statements of CDMQ - Greek sample (n_G=145)

CDMQ	Regularly		Often		Sometimes		Not at all	
	frequency	percent (%)	frequency	percent (%)	frequency	percent (%)	frequency	percent (%)
Q1	42	29.0	49	33.8	38	26.2	16	11.0
Q2	52	35.9	47	32.4	36	24.8	10	6.9
Q3	113	77.9	23	15.9	9	6.2	0	0.0
Q4	59	40.7	41	28.3	39	26.9	6	4.1
Q5	64	44.1	58	40.0	21	14.5	2	1.4
Q6	31	21.4	46	31.7	52	35.9	16	11.0
Q7	14	9.7	30	20.7	53	36.6	48	33.1
Q8	9	6.2	19	13.1	41	28.3	76	52.4
Q9	47	32.4	39	26.9	32	22.1	27	18.6
Q10	33	22.8	25	17.2	47	32.4	40	27.6
Q11	12	8.3	16	11.0	13	9.0	104	71.7
Q12	1	0.7	12	8.3	19	13.1	113	77.9
Q13	26	17.9	27	18.6	44	30.3	48	33.1
Q14	0	0.0	10	6.9	23	15.9	112	77.2
Q15	15	10.3	33	22.8	59	40.7	38	26.2

The majority of the sample consisted of women (93,5%), working in the medical (42 %), surgical (37,3%) and critical care settings (20,7 %) with 0 to 36 years of working experience (mean ± standard deviation =10.09 ± 8.99 years).

Finnish nurses regularly make clinical decisions regarding the patient's diagnosis, the provision of basic nursing care, patient/family teaching and offering discharge information to patients/families. Also, Finnish nurses often make clinical decisions regarding the coordination of their nursing duties, psychological support offered to patients, arranging patients' additional examinations, supervising newly hired staff, and educating nursing students. Finnish nurses sometimes make clinical decisions to intervene in emergency situations, to inform patients about the prognosis of their disease and organize the work of others. Lastly, they do not make any decisions regarding the clinic/unit budget, changes made to the patient's medication and discharging the patient.

Kruskal-Wallis test was employed to investigate the existence of statistically significant differences in medical, surgical, and critical care settings.

Results indicate that there are statistically significant differences in the clinical decisions made by nurses based on theclinical setting they work in (medical, surgical and critical care) regarding question 3($p<0,05$), question 5 ($p<0,05$), question 7 ($p<0,05$), question 12 ($p<0,05$) and question 13 ($p<0,05$).

There is a statistically significant difference between the nurse's responses working in the critical care setting when compared with those of nurses occupied both in the medical and surgical setting in regard to questions 3 (provision of basic nursing care), 5 (intervention in emergency situations) and7 (informing patients about the prognosis of their disease). Regarding question 12 (changes made to the patient's medication) a statistically significant difference between nurses' responses working in the surgical setting compared to nurses working in medical and critical care settings, was found. Finally, in regard to question 13 (offering discharge information to patients/families) a statistically significant difference between the nurses' responses working in the medical setting compared to nurses from the critical care and surgical settings were also identified.

Greek subset

Cronbach's alpha reliability coefficient

The reliability analysis for the subset of Greek nurses, revealed that the Cronbach's alpha coefficient for the questionnaire was 0.796. This value is over the threshold value of 0.70, and thus is acceptable revealing that the questionnaire is characterized by consistency.

Descriptive Analysis: demographic characteristics of the Greek sample (n_G=145)

Greek nursesage ranged from 22 to 59 years (mean ± standard deviation=38.27 ± 7.95 years). The majority of the sample consisted of women (89%), working in the medical (40%),

surgical (35,9%) and critical care setting (24,1%) with 1 to 36 years of working experience (mean ± standard deviation = 11.85 ± 8.23 years).

Greek nurses regularly make clinical decisions regarding the coordination of their nursing duties, the provision of basic nursing care, the provision of psychological support, interventions in emergency situations and offer supervision to newly recruited staff however, they often make clinical decisions regarding the diagnosis of the patient's condition. They sometimes make clinical decision regarding patient/family education, informing patients about the prognosis of their disease, educating nursing students, offering discharge information to patients/families, and organize the work of others. Lastly, they make no clinical decisions about scheduling additional examinations for the patient, the clinic/unit budget, changing the patient's medication, and deciding if the patient can be discharged from the hospital.

Kruskal-Wallis test was employed to investigate the existence of statistically significant differences in medical, surgical, and critical care settings.

Table 4 Kruskal-Wallis test - Greek Subset

Total Greek subset (n_G=145)							
CDMQ	Medical (n=58)		Surgical (n=52)		Critical Care (n=35)		Kruskal-Wallis
	mean (M)	std (SD)	mean	std	mean	std	(p-value)
Q1	2.33	1.00	2.04	0.86	2.20	1.11	0.335
Q2	2.12	0.92	2.08	1.01	1.80	0.87	0.258
Q3	1.29	0.56	1.33	0.65	1.20	0.48	0.685
Q4	2.12	1.03	1.83	0.83	1.83	0.82	0.270
Q5	1.78	0.84	1.88	0.70	1.43	0.61	0.013*
Q6	2.45	1.08	2.33	0.83	2.29	0.86	0.752
Q7	3.14	0.98	2.83	0.90	2.74	0.98	0.053
Q8	3.47	0.78	3.02	0.94	3.31	1.02	0.020*
Q9	2.26	1.16	2.31	1.08	2.23	1.09	0.928
Q10	2.64	1.18	2.60	1.05	2.74	1.12	0.797
Q11	3.28	1.12	3.52	0.85	3.60	0.91	0.271
Q12	3.74	0.58	3.52	0.80	3.83	0.45	0.111
Q13	2.81	1.08	2.71	1.11	2.86	1.11	0.801
Q14	3.79	0.49	3.50	0.73	3.86	0.43	0.008*
Q15	2.81	0.98	2.83	0.90	2.86	0.94	0.995

**Statistically significant difference (p-value<0.05)*

Results indicate that there are statistically significant differences in the clinical decisions made by nurses based on the clinical setting they work in regarding question 5 (p<0,05), question 8 (p<0,05) and question 14 (p<0,05). Specifically, a statistically significant difference was found between the nurse's responses working in the critical care setting when compared to nurses from both the medical and surgical settings regarding question 5 (intervention in emergency situations).

Table 5 Mann-Whitney u test analysis between the two countries per nursing practice

Nursing Practice	Mann-Whitney U-test (p-value)
Direct Patient Care	0,001*
Supervision and management decisions	0,001*
Decisions related to nurses' extended roles	0,013*
OVERALL	0,001*

**Statistically significant difference p-value<0.05*

Additionally, statistically significant differences were found between the nurse's responses working in the surgical setting when compared with nurses from themedical and critical care setting in relation to question 8 (arranging additional examinations)and question 14 (deciding if the patient can be discharged from the hospital).

The results revealed that there are statistically significant differences between the two countries per nursing practice (p<0,05).

DISCUSSION

In the field of health, changes occur daily. As a result, it is important that the decisions made in relation to health and daily clinical practice are accurate resulting in a creative positive outcome[21].The results of this study indicate that Finnish nurses make better clinical decisions regarding the provision of nursing care, supervision and administrative decisions as well as decisions related to their extended nursing role. It appears that the main differences regarding clinical decision making in the two countries included in the study are: the lack of up-to date legal nursing duties and responsibilities in Greece, the multidimensional role of the nurse in Finland compared to the limited role of the nurse in Greece (focusing mainly on patient care) and the difference in the organization of nursing care (team nursing in Finland versus functional - task orientated nursing in Greece).

Specifically, Greek nurses are largely unable to make a nursing diagnosis, and this seems to be mainly due to the fact that the nursing process is not applied in daily clinical practice due to shortage of staff. Nursing diagnoses provide the basis for the selection of nursing interventions for which the nurse is accountable[22].In addition, the lack of up-to-date legally recognized nurses' duties and responsibilities along with the fact that care in Greece is mainly medical, with doctors making the majority of decisions, has cultivated a passive attitude on behalf of the nurses regarding their clinical decisions. This study demonstrates that nurses' decisions regarding patient teaching and offering discharge information to patients/families are limited.

It is worth mentioning that the findings of this study demonstrated similarities in clinical decisions made by Greek and Finnish nurses. Nurses in both countries do not make any decisions regarding budget issues, changing patient's medication and deciding if the patient can be discharged from the hospital. The last two decisions refer more to medical interventions while the first is determined by the head or manager of the clinic/unit. Nurses, in both countries make clinical decision concerning the provision of basic nursing care to patients, which is the foundation of nursing science. However, the method of organizing nursing care, which is different in both countries, can influence clinical decisions related to basic nursing care[23]for example, teaching the patient and his family.

On the other hand, Finnish nurses have specific nursing duties and responsibilities and utilize a team nursing approach and appear to have an active role in patient care. In addition, although they make decisions about coordinating the work environment by demonstrating their leadership skills, decisions that characterize an extended nursing role are limited. Finnish nurses do not often make decisions regarding emergency interventions and informing patients about the prognosis of their disease. Thus, there is a need for future distinct guidelines that could facilitate an extended nursing role.

The results of this study are interesting in terms of the differences in clinical decisions made by nurses working in the medical, surgical and critical care settings. Nurses working in the critical care units, in both countries, make better decisions related to emergency interventions. Other studies found similar results[20]. This is mainly due to the philosophy of the setting where time is a crucial element and nurses must intervene immediately.

Lastly, in Finland nurses working in the surgical setting change patient's medication more often than nurses working in the medical and critical care setting, while nurses working in the medical setting make decisions more often regarding offering discharge information to patients/families. This is mainly due to the fact that medical patients may need more information and education related to their condition which if offered by nurses that will ultimately determine the patient's positive health outcome.

In contrast, Greek nurses working in the surgical setting, make decisions more often regarding scheduling additional examinations and discharging patients than nurses working in the medical and critical care setting. It is possible that due to lack of medical and nursing staff in combination with everyday clinical problems during the covid pandemic, nurses are able to take on a more active role and make decisions related to scheduling additional examinations and discharging patients.

Limitations

Although this study revealed important information, the sample was small. Therefore, future research is deemed necessary using a larger sample.

CONCLUSIONS

Clinical decision making is an integral part of nursing science and daily clinical nursing practice. Nurses' clinical decisions significantly determine the patient's prognosis and outcome, especially in emergency situations. The establishment of up-to date legal nursing duties and responsibilities in Greece is therefore of great importance. Legislation is the most important and decisive factor in nursing clinical decision making. Greek legislation, regarding nurses' professional rights, does not highlight the multidimensional and important role of the nurse. Another important issue is the recruitment of knowledgeable nursing staff and the implementation of the nursing process to assist nurses in providing quality nursing care.

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References

1. Holland C, Ulrich D. Critical thinking cards: An innovative teaching strategy to bridge classroom knowledge with clinical decision making. Teaching and Learning in Nursing. 2016;11 (3): 108-112.
2. Murray DJ, Boyle WA, Beyatte MB, Knittel JG, Kerby PW, Woodhouse J, Boulet JR. Decision-making skills improve with critical care training: Using simulation to measure progress. J Crit Care. 2018; 47: 133-138.
3. Turale S, Ito M, Nakao F. Issues and challenges in nursing and nursing education in Japan. Nurse Education in Practice. 2008; 8 (1): 1-4.
4. Hellenic Statistical Authority (2020). Athens, Greece. Available from https://www.statistics.gr/en/home/
5. Eurostat (2020). European Commission Database. Available from https://ec.europa.eu/eurostat/data/database
6. Mouratidis K, Yiannakou A. COVID-19 and urban planning: Built environment, health, and well-being in Greek cities before and during the pandemic.Cities. 2021; 121:103491.
7. Finnish National Agency for Education (2021). Finland.Available from https://www.oph.fi/en/education-system
8. Lauri S, SalanteräS, Callister LC, Harrisson S, Käppeli S, MacLeod M. Decision making of nurses practicing in intensive care in Canada, Finland, Ireland, Switzerland and the US. Heart Lung. 1998; 27: 133-142.
9. Bakalis N, Nanouri F, Ntzoufra M, Kiekkas P. The attitude of Greek student nurses toward euthanasia. Journal of Nursing Education and Practice. 2014; 4 (1): 237-246.
10. Valvira National Supervisory Authority for Welfare and Health (2021). Finland.Available from https://www.valvira.fi/web/en/healthcare
11. Auvinen J, Suominen T, Leino-Kilpi H, Helkama K. The development of moral judgment during nursing education in Finland. Nurse education today. 2004; 24 (7): 538-546.
12. Fox J, Patkar V, Chronakis I, Begent R. From practice guidelines to clinical decision support: closing the loop. J R Soc Med. 2009; 102(11): 464–473.
13. Gillespie M. Using the situated clinical decision-making framework to guide analysis of nurses' clinical decision making. Nurse Education in Practice. 2010; 10: 333-340.
14. Nibbelink CW, Brewer B.Decision making in nursing practice: an integrative literature review. Journal of Clinical Nursing. 2018; 27: 917-928.
15. Marino MA, Andrews K, Ward J. Clinical Decision Making at the bedside. Nursing Clinics of North America. 2020; 55(1): 29-37.
16. Khalifa M. Clinical Decision Support: Strategies for Success. Procedia Computer Science. 2014;37: 422-427.
17. Banning M. A review of clinical decision making: models and current research. Journal of Clinical Nursing. 2007; 17 (2): 187-195.
18. Thompson C, Stapley S. Do educational interventions improve nurses' clinical decision making and judgement? A systematic review. International Journal of Nursing Studies. 2011; 48(7): 881-893.
19. Merisier S, Larue C, Boyer L.How does questioning influence nursing students' clinical reasoning in problem-based learning? A scoping review. Nurse Education Today. 2018; 65: 108-115.
20. Bakalis NA, Watson R. Nurses' decision-making in clinical practice. Nursing Standard. 2005; 19(23): 33-39.
21. Hoffman K, Aitken L, Duffield C.A comparison of novice and expert nurses' cue collection during clinical decision-making. Int J Nurs Stud. 2019; 46 (10): 1335-1344.
22. Gunnarsson BM, Stomberg M. Factors influencing decision making among ambulance nurses in emergency care situations. Int Emerg Nurs. 2009; 17(2): 83-89.
23. Lundgrén-Laine H, Kalafati M, Kontio E, Kauko T, Salanterä S. Crucial information needs of ICU charge nurses in Finland and Greece. Nurs Crit Care. 2013;18(3): 142-153.