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ΕΡΕΥΝΗΤΙΚΗ ΕΡΓΑΣΙΑ

Identifying nurses' perceptions and attitudes toward nursing errors in a clinical environment
A pilot study

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ΑΡΧΕΙΑ ΕΛΛΗΝΙΚΗΣ ΙΑΤΡΙΚΗΣ 2026, 43(2):241–248

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OBJECTIVE **To investigate the gap in identifying nurses' perceptions and attitudes toward nursing errors in clinical practice.** METHOD **This pilot study was conducted from February to March 2023 enrolling 52 registered nurses. A convenience sampling method was used to approach nurses occupied in a university hospital in Greece. Nurses' attitudes were assessed using Sexton's Safety Attitudes Questionnaire (SAQ). Meurier's questionnaire also evaluated perceptions. Demographic characteristics and nurses' attitudes toward nursing errors were recorded and analyzed using non-parametric statistical methods, including Friedman and Mann-Whitney tests. p-values <0.05 were considered statistically significant.** RESULTS **The mean age of the 52 nurses (90.4% female) was 43.1±9.7. A total of 29 out of 52 nurses reported committing nursing errors as nurses during their occupational career. Medication errors (28.8%) were identified as the most frequent nursing errors. Other types of errors included administration of medication (15.4%), drug administration route (3.8%), use of equipment (5.8%), and errors of omission (1.9%). A higher perception level toward "teamwork climate" was observed among nurses who indicated they did not commit nursing errors (80.1 versus 45.8, p=0.032).** CONCLUSIONS **Our results revealed medication administration nursing errors as the most common in clinical practice. The findings highlighted the critical need for increased awareness, education, and training to assist nurses in comprehending medication errors and reporting their occurrence accordingly to patient safety.**

Διερεύνηση των αντιλήψεων και των στάσεων των νοσηλευτών σχετικά με λάθη στην κλινική πρακτική. Μια πιλοτική μελέτη

Περίληψη στο τέλος του άρθρου

Key words

Clinical environment
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Nursing errors, as defined by the World Health Organization (WHO), refer to "*any deviation from routine care that poses a risk of harm or causes injury to a patient, including preventable errors, adverse events, and risks*". These errors can occur during any stage of the nursing process, including assessment, planning, implementation, and evaluation. Several studies have shown that medication errors occur up to 20%, 39% among general practitioners, and 38% among registered nurses.[1,2] Also, errors are still commonly detected in healthcare settings, especially in clinical environments.[3] A multifactorial problem mainly involves serious consequences for patients and outcomes, including physical harm, and psychological trauma, and may have life-threatening impacts on the patient.[4] Thus, nursing errors represent a significant challenge to the quality of nursing care provision.

It has been suggested that nurses play an important role in patient care and safety. This role concerns health services and a holistic approach to patients through appropriate communication and mutual support between the disciplinary team members.[5] Particularly, a variance of nursing actions that focus on comprehensive patient care can contribute to an increased risk of nursing errors in the workplace.[6] In this context, healthcare organizations should prioritize patient safety, as it constitutes an important aspect of healthcare and implement measures to prevent nursing errors. Thus, by creating a culture of

safety, providing effective communication and teamwork, healthcare organizations can effectively reduce the occurrence of nursing errors and mitigate their potential impact on patients' outcomes.[7,8]

It has been demonstrated that various factors contribute to the occurrence of harmful events in healthcare settings, especially in clinical environments. These factors can include inadequate staffing levels, fatigue, clinical performance, and burnout among nurses and may elicit nursing errors and malpractice.[9,10] Nurses work under cognitive, perceptual, and physical overloads. Specifically, nurses engage in multiple tasks under cognitive load and frequent interruptions.

Importantly, various barriers hinder reporting nursing errors, impacting patient safety.[11,12] Additionally, the increased workload experienced by nurses can also contribute to the underreporting of errors.[13] This not only affects their physical and mental well-being, but also hampers their ability to provide high-quality care to patients. When nurses are overwhelmed with their responsibilities and workload, they may be less likely to report errors due to time constraints or the belief that reporting will further burden their already demanding work environment.[13]

On the other hand, certain behaviors such as a deficit in following guidelines, were directly associated with nursing errors. Standardized protocols and checklists can help ensure that nurses follow consistent procedures and best practices, reducing the likelihood of errors.[3] However, in Greece there are no significantly accepted protocols for the preparation and administration of nursing errors. As a result, the most experienced nurses rely on their instincts and conscientiousness. Providing ongoing education and training opportunities for nurses can help them stay updated on the latest evidence-based practices, enhance their clinical skills, and improve their ability to prevent nursing errors.[14]

Consequently, this study aimed to investigate nurses' perceptions and attitudes toward nursing errors in the clinical environment, providing valuable insights into working conditions that advocate the occurrence of nursing errors.

MATERIAL AND METHOD

Study design and population

The present study was a cross-sectional study using a questionnaire. This study was implemented from February to March 2023 recruiting nurses working in ten hospital units/clinics (e.g., medical, surgical, pediatrics, etc.) of the university hospital. A convenience sampling method in a cross-sectional design was employed. After obtaining the relevant permission to collect data,[37] twenty-seven units/clinics of the university hospital were examined for their eligibility to participate in the study representing the whole spectrum of medical and nursing care. Specialist departments such as the intensive care unit (ICU) and the psychiatric unit were excluded due to the critical (specific) care they provide. Nurses working in these clinics were approached by the main researchers to provide their informed written consent. Finally, 52 out of 74 nurses working in these 10 clinics met the inclusion criteria and were involved in the statistical analysis (response rate 70.2%).

The inclusion criteria were (a) registered nurses with a four-year Bachelor of Science (BSc) in nursing (EQF-6) who had been working for at least one year in medical and surgical clinics, (b) the ability to understand fluidly the Greek language and thus the study purposes aims and needs of the study, for understanding for completing the questionnaire, (c) nurses written informed consent and (d) those who refused to participate. Nursing staff (supervisors, overseeing nurses and or managerial, etc.) working in the nursing administration were thus excluded. The study adhered to the strengthening the reporting of observational studies in epidemiology (STROBE) guidelines for cross-sectional studies.

Data collection

To identify the perceptions towards nursing errors concerning internal and external emotional responses to error, as well as positive and negative perceived senior staff responses and error-coping strategies used, the enriched and validated questionnaire in Greek by Karga and her colleagues[15] was used with internal consistency for all items with Cronbach's alpha coefficient exceeded to 0.65. Originally, this was developed by Meurier et al.[16] Apart from demographic information (gender, age, marital status, previous services, educational level), an open-ended question in which participants were asked to describe briefly the most serious nursing error they have made in their career in 28 closed-ended questions as regards perceptions about nursing errors.

The Sexton's Safety Attitudes Questionnaire (SAQ) was used to assess participants' attitudes toward nursing error. The SAQ questionnaire was developed at the Center of Excellence for Patient Safety Research and Practice at the University of Texas. It is specifically designed and evaluated with a high Raykov's factor reliability coefficient (0.90) and demonstrates good psychometric properties, ranging from 0 to 100. It consists of 60 items and participants are asked to rate based on their agreement or disagreement on a five-point Likert scale (1=Disagree strongly, 2=Disagree slightly, 3=Neutral, 4=Agree slightly, 5=Agree strongly). The SAQ includes six domains as follows: teamwork climate, job satisfaction, perceptions of management, safety climate working conditions, and stress recognition. Some items are negatively worded. There is also an open-ended section for comments: *"What are your top three recommendations for improving patient safety in this clinical area?".*

Each domain of the SAQ is based on the "Collaboration and communication" section, where respondents are asked to indi-

cate the quality of collaboration and communication they have experienced with each of the types of providers in their clinical area (e.g., staff surgeons, surgical residents, staff anesthesiologists, operating room nurses, etc.) using a five-point Likert scale (very low, low, adequate, high, very high). Demographic characteristics such as age, sex, working experience, and nationality, etc. were also recorded.[15]

Ethical considerations

Ethical approval was obtained from the Research and Bioethics Committee of the Hellenic Mediterranean University (IRB no 8922/6.12.2022). Relevant permission to collect data was obtained by the University General Hospital of Heraklion, Crete, Greece, Ethics Committee (ref no 28353/20.12.2022). All participants gave their written informed consent about the study objectives, expected outcomes, and associated benefits and risks, as well as they may withdraw from the study at any time.

Statistical analysis

Data were coded and analyzed using the Statistical Package for Social Sciences (SPSS) software platform (IBM Corp released 2019, IBM SPSS Statistics for Windows, Armonk, IBM Corp, NY), version 25.0. Frequency distributions and measures of variance/dispersion of descriptive characteristics for both males and females of 52 nurses have been calculated with case-by-case estimation for comparison of 95% confidence intervals (95% CI). The Chi-square (x^2) test and Mann-Whitney method were used to correlate nursing errors with the basic characteristics of 52 registered nurses. Additionally, Friedman and Mann-Whitney's methods were used to explore potential significant differences across all domains of SAQ comparing the participants who committed an error (yes) and did not make an error (no).

RESULTS

The participants' basic characteristics and socio-demographic data are presented in table 1. In brief, the mean age of the participants (90.4% females) was 43.1±9.7 years old. Regarding education, 53.8% were registered nurses from the department of nursing of a technological university, 30.8% were nurses with a two-year associate degree in nursing and 15.4% were registered nurses with a four-year BSc in nursing. Additionally, 15.4% were master's degree graduates, whereas 21.2% were advanced specialized nurses (holders of specialty in nursing). The mean work experience as a nurse in clinical practice was 16 years, ranging from 1 to 36.

Also, no significant differences in nursing errors with response to basic characteristics were observed. Particularly, nursing errors did not significantly differ between females and males (55.3% versus 44.7%, and males 60.0% versus 40.0%, p=0.841), age (41.4% versus 45.2%, p=0.178), master's degree (75.0% versus 25.0%, p=0.234), and work experience (15.3% versus 17.0%, p=0.444). However, significant differences were observed between nurses having specialty (81.8% [yes] versus 18.2% [no], p=0.050), suggesting that advanced specialized nurses committed nursing errors more frequently (results not shown in table or figure).

The most frequent nursing was presented and classified into five categories. Particularly, 29 out of 52 nurses reported that were experienced errors related to "medication errors" (48.0%). Specifically, 28.8% referred to "medication errors",

Table 1. Basic characteristics of the study participants (n=52).*

Characteristics	Categories	n	%
Gender	Female/male	47/5	90.4/9.6
Age, years	Mean age±(SD) (median) [range]	43.1±9.7 (45.5) [23.58]	
Marital status	Unmarried/divorced	20	38.5
	Married	32	61.5
Number of children	None	26	50.0
	1	3	5.8
	2	18	34.6
	3	5	9.6
Nationality	Greek	50	96.2
	Other	2	3.8
Master of Science	Yes (EQF-7)*	8	15.4
Specialty	Yes	11	21.2
Work of experience (years)	Mean age±(SD) [range]	16,0±10,9 [23, 58]	
Units (Clinic)	Gastroenterology	8	15.4
	Neurosurgical	8	15.4
	Urology	8	15.4
	General surgery	7	13.5
	Pulmonary	5	9.6
	Surgical oncology	5	9.6
	Cardiology	4	7.7
	Pathological oncology	4	7.7
	Nephrology	2	3.8
	Pathology	1	1.9
Committed nursing errors	Yes	29	55.8
	No	23	44.2

* Registered nurses are graduates at the Bachelor level (EQF-6)
EQF: European Qualification Framework, SD: Standard deviation

15.4% errors in the "administration of medication" to another patient, and 3.8% "errors in the drug administration route" due to poor decision making (results not shown in table or figure).

The proportion of 55.8% of the participants recalled experiencing errors as a nurse in clinical practice (tab. 2). Specifically, 69.2% responded that "when they started working in the hospital, the supervisor or another person in charge advised them on how to manage a nursing error," whereas 65.6% reported making errors within the first 4 years of their work experience. During the morning shift, 37.9% of errors occurred. Moreover, 86.2% of participants acknowledged their errors, yet only 75.9% reported them to the hospital administration.

Table 2. Participants' perceptions toward nursing errors (n=52).

Questions	n	%	95% CI
When you started working, did your supervisor or other person in charge tell you what to do if you make a nursing error?			
Yes	36	69.2	55.9–80.5
No	16	30.8	19.5–44.1
Do you remember making an error as a nurse?			
Yes	29	55.8	42.3–68.7
No	23	44.2	31.3–57.7
If yes, how many nursing errors do you remember making to date?			
1–5	24	82.8	–
5–10	2	6.9	–
>10	3	10.3	–
When did the nursing error committed?			
In the last 6 months	3	10.3	–
The last year	2	6.9	–
The last 2 years	3	10.3	–
The last 3 years	2	6.9	–
The last 4 years or more	19	65.6	–
On which shift did the nursing error committed?			
Morning	11	37.9	–
Afternoon	9	31.0	–
Night	5	17.2	–
Not remember	4	13.9	–
Did you realize the mistake on your own?			
Yes	25	86.2	–
No	4	13.8	–
Would you record your nursing errors undersigned if requested by the hospital management?			
Yes	22	75.9	–
No	7	24.1	–

The safety attitudes levels of the participants toward nursing errors are presented in table 3. The overall mean score of attitude level was 69.5±14.2, indicating moderate-to-high levels of safety attitude. A higher level of attitudes toward "teamwork climate" was found in participants who did not commit nursing errors (mean 86.4 versus 75.4, p=0.032), compared to those committed nursing errors. Among SAQ domains, we found that 52 nurses presented with significantly higher safety attitudes toward "teamwork climate" (mean 80.1 versus 45.8, p<0.001) in comparison to the "perceptions of management" domain. No other significant differences were observed among SAQ domains. Moreover, we presented possible differences between nurses who committed nursing errors and those who did not. Nursing errors did not significantly differ between females and males (55.3% versus 44.7%, and males 60.0% versus 40.0%, p=0.841), age (41.4% versus 45.2%, p=0.178), master's degree (75.0% versus 25.0%, p=0.234), and work experience (15.3% versus 17.0%, p=0.444). However, significant differences were observed between nurses having specialty (81.8% [yes] versus 18.2% [no], p=0.050), suggesting that advanced specialized nurses committed nursing errors more frequently (results not shown in tables or figures).

Table 3. Safety Attitude Questionnaire (SAQ) score levels of 52 nurses in the study regarding nursing errors.

		Do you remember making a nursing error as a nurse?		
	Total	Yes (n=29)	No (n=23)	
	Mean score±SD			p-value*
Total SAQ score	69.5±14.2	66.3±15.7	73.8±11.0	0.162
Teamwork climate	80.1±16.9	75.4±17.8	86.4±13.7	*0.032*
Safety climate	78.6±18.5	74.4±20.0	84.1±15.0	0.086
Job satisfaction	74.4±21.6	73.1±24.0	76.1±18.3	0.901
Stress recognition	69.5±26.8	71.6±25.9	66.8±28.4	0.473
Perceptions of management	45.8±19.8	44.0±20.9	48.3±18.4	0.580
Working conditions	54.8±23.8	48.7±25.0	62.8±19.9	0.089

Notes: A higher score (range 0–100) indicates a higher intensity corresponding module

Associations among the SAQ domains were controlled using the Friedman test p<0.001

* p-values controlled using a Mann-Whitney test

SD: Standard deviation

DISCUSSION

To our knowledge, the present study is one of the few studies in Greece highlighting nurses' perceptions and attitudes of nursing errors in their clinical practice. To summarize, the following findings emerged: (a) The most frequent nursing errors in this study were medication errors, errors in the administration of medication, drug administration route, use of equipment, and errors of omission; (b) a higher perception level toward "teamwork climate" was observed among nurses who indicated not committing nursing errors (p=0.032); (c) another extremely high percentage was 81.8% of nurses with a specialty degree do appeared to be significantly correlated with their positive response to making nursing errors, in comparison with other nurses not having a specialty degree. (d) Lastly, many nurses mentioned that nursing errors may occur during morning shifts.

The main finding of the present study was that medication errors (MEs) were the most common nursing errors in clinical practice. The occurrence of MEs among nurses is a critical issue that has garnered notable attention in the healthcare industry. Nurses must be vigilant and proactive in ensuring medication safety, as their actions directly impact patient outcomes.[17] In agreement with our findings, data from a recent study in Cyprus demonstrated that medication administration errors, as a complex process, are common in nursing practice.[18] MEs are also the most reported errors in Asia. Especially, in South Korea, MEs are a threat to patient safety.[19] As identified in this study, some of the most common MEs administering the wrong technique, or route, and failure to properly document the preparation.[20,21] Therefore, nursing errors during the administration process can be ascribed to many factors. Understanding the factors that contribute to nursing errors and implementing strategies to prevent them is important for ensuring patient safety and optimizing the quality of care provided in healthcare settings. Since nurses have a crucial role with high responsibility in these processes in their clinical practice, they engage in a prone-to-error procedure.[22] Moreover, this procedure involves errors, especially from the administration process, the dosing calculating skills of nurses and their education, the oral medication orders, and the interdisciplinary collaboration. A literature review examined MEs in clinical practice as the result of nurses' miscalculating drug dosages.[1] Also, procedural nursing errors include omissions and deviations from safe drug administration guidelines. Omissions of disinfection of hands or disinfection of the site infections, for example, may occur with the potential to cause harm to patients and perturb the patient's safety.[23]

Nurses' training and education level could be associated with making and reporting nursing errors. Specifically, in the current study nurses with technological studies and nurses with an extra specialty degree are positive responses to making nursing errors. Other researchers found that the frequency of reporting and making nursing errors was higher among nurses with higher education levels. Nurses with new and specialized orientation training make errors more frequently.[24] Furthermore, in error management, missing training was identified as a crucial factor in making nursing errors, regarding medication administration. Nursing errors also come from documentation without significant work experience or training.[25] Nurses need to be aware of and take steps to prevent nursing errors to ensure the highest quality of patient care. By doing so, nurses will feel empowered to report nursing errors without fear of reprisal and efforts can be made to understand and prevent similar occurrences in the future.[9] Additionally, strategies to reduce distractions and interruptions, as well as implementing checklists and policies, can help create a safer environment for medication administration. Implementing new protocols and standardized procedures is essential in reducing MEs. Furthermore, it is important to consider cost-efficient methods that do not rely solely on expensive technology.[26]

In this study "teamwork climate" was observed with a higher perception level among nurses who indicated not making nursing errors in a clinical environment. Nurses in the questionnaire of SAQ reported that they collaborate with their colleagues as a well-coordinated team. Disputes are resolved appropriately between the members, and they have the support of each other to report a nursing error. The staff encourages each member to raise any concerns they have about patient safety. In addition, other studies emphasized the impact of safety climate and teamwork in clinical practice. This is paramount to enhancing the prevention of nursing errors in healthcare organizations.[27] A positive safety climate promotes open communication, encourages reporting of errors, and supports a culture of learning from mistakes.[28] By creating a culture like this, and providing effective communication and teamwork, nurses will mitigate their potential impact on patient outcomes.[29]

In comparison with this study, recent research findings showed that nurses were afraid of being stigmatized by their co-workers and concerned they would be blamed and punished by supervisors.[30] Concerning the management of nursing errors, most nurses experienced fairness.[20] The fairness of nurses is an important aspect of the healthcare industry, as it directly affects the well-being of both patients and healthcare professionals. An incidence like this can

hinder the identification and prevention of nursing errors due to fear of punishment or blame as well mentioned before. Moreover, personal reasons such as fear and criticism from other team members were barriers to nursing error reporting and therefore to consist of well-organized teamwork in the clinical environment.[3] Reporting errors and near misses can improve communication and collaboration among healthcare organizations. Furthermore, it allows for the identification of patterns and trends in nursing errors, which can help in implementing targeted training programs and interventions to address specific areas of weakness.

Most importantly, many nurses in the current study reported that during morning shifts nursing errors may occur due to excessive workload, and insufficient staffing of clinics with registered nurses. Nursing errors may be encountered during the morning shift also due to frequent physician rounds and interruptions. Patients may be more vulnerable at the time of endorsement, because of communication barriers and time. Nursing staff need to be aware of these potential challenges and take proactive measures to prevent errors during the morning shift. A study in Denmark focused on interruptions in clinical nursing practice and found that interruptions encounter nurses with a big dilemma. Nurses are determined to be focused on their nursing practice and be accessible to other professionals.[31] On the other hand, other studies showed that during night shifts, errors may occur more frequently.[19] In night shifts, the combination of both mental and physical fatigue, along with lack of vigilance, extended work hours, and the absence of policies that regulate napping during the night shift may explain the peak of severe nursing errors in the middle of the night shift. Also, nursing errors during the night shift can compromise patient safety. This is negatively impacting not only nurses' performance but also contributing to significant patient harm.[2] Training should focus on strategies to promote sleep, improve decision-making skills in high-pressure situations, and support mitigating risk factors.[32] Therefore, re-arranging the staffing pattern among shifts, adopting staff coverage and reallocation policies, and increasing supervision levels in the night shifts might address the high rate of errors during this period.[33] By classifying errors based on various criteria such as outcomes, cognitive reasoning, and ethical considerations, this study presented a holistic framework for examining nurses' errors from diverse perspectives. Through this classification approach, the study establishes a foundation for tailored interventions targeting aspects of mistakes and their root causes in pediatric departments.[10] Also, developing protocols for medication administration, providing ongoing training, and establishing clear communication channels can help to mitigate nursing errors. To offer administrative support and foster an open culture of communication using new learning tools for enhancing patient safety and healthcare quality, hospitals should spend substantial effort on avoiding nursing errors by improving the healthcare system.[34] Interventions can be categorized into two broad approaches: Utilizing technology or automation to minimize errors and enhance prescription writing; or reviewing and strengthening preceptor engagement to improve supervision and monitoring of students' practice, thereby enhancing the acquisition of clinical competence and preventing MEs.[35] Medication administration skills require improved education, closer supervision of clinical placement and environmental system changes to reduce MEs by nursing students.[29]

Despite the valuable findings of the study, it is essential to acknowledge its limitations. Firstly, the small sampling size, influenced by missing data and workload constraints, may compromise the robustness of the results. Secondly, self-reported data may exhibit inherent reliability issues. Certain nursing errors could have been attributed to inaccurate medical guidance or protocols that were not adequately accounted for. Furthermore, the study's scope was limited to a single Crete hospital, precluding generalization to the broader Greek healthcare system.

In conclusion, our findings indicate that nursing errors are still commonly distinguished in healthcare settings, especially in clinical practice. Because experienced nurses seem to work empirically and rely on conscientiousness, they do not adopt new guidelines and protocols. This study posited that to mitigate future nursing errors in clinical settings, nurses must recognize and prioritize continuous education. The nursing staff should engage in educational training, evidence-based practice, seminars, and adhere to current guidelines to deliver the highest quality care and ensure patient safety. Ongoing research is essential to inform the development of evidence-based interventions and policies that enhance patient safety and minimize the occurrence of nursing errors.

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ΠΕΡΙΛΗΨΗ

Διερεύνηση των αντιλήψεων και των στάσεων των νοσηλευτών σχετικά με λάθη στην κλινική πρακτική. Μια πιλοτική μελέτη

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ΣΚΟΠΟΣ Η αποτύπωση της αντίληψης των νοσηλευτών(τριών) για το εάν έχουν υποπέσει σε νοσηλευτικά λάθη και πώς τα διαχειρίστηκαν, κατά την άσκηση της καθημερινής κλινικής πρακτικής. **ΥΛΙΚΟ-ΜΕΘΟΔΟΣ** Διενεργήθηκε συγχρονική μελέτη παρατήρησης, η οποία συμπεριέλαβε 52 εγγεγραμμένους νοσηλευτές(τριες) σε νοσοκομείο της Κρήτης κατά τη χρονική περίοδο Φεβρουαρίου–Μαρτίου 2023. Οι αντιλήψεις των νοσηλευτών αξιολογήθηκαν με το ερωτηματολόγιο Sexton's Safety Attitudes (SAQ), ενώ οι στάσεις των νοσηλευτών(τριών) απέναντι στα νοσηλευτικά λάθη με τη χρήση του ερωτηματολογίου του Meurier. Μη παραμετρικοί έλεγχοι, όπως Friedman και Mann-Whitney, εφαρμόστηκαν για τις συγκρίσεις των μεταβλητών. Ως αποδεκτή τιμή στατιστικής σημαντικότητας καθορίστηκε η $p<0,05$. **ΑΠΟΤΕΛΕΣΜΑΤΑ** Η μέση ηλικία των 52 συμμετεχόντων (90,4% γυναίκες) ήταν 43,1 έτη. Νοσηλευτικά λάθη αναφέρθηκαν από το 55,7% των συμμετεχόντων, ενώ τα συχνότερα προέκυψαν κατά τη χορήγηση φαρμακευτικής αγωγής (28,8%), χορήγηση φαρμάκων σε άλλον ασθενή (15,4%) και λανθασμένη οδό χορήγησης φαρμάκων (3,8%). Σημαντικές διαφοροποιήσεις ως προς το επίπεδο αντίληψης για το «κλίμα ομαδικής εργασίας» παρατηρήθηκαν μεταξύ των νοσηλευτών που δήλωσαν ότι δεν υπέπεσαν σε νοσηλευτικά λάθη έναντι εκείνων οι οποίοι υπέπεσαν (80,1 έναντι 45,8, $p=0,032$). Ακόμη, με σημαντικά υψηλότερα επίπεδα βρέθηκε η «ομαδική εργασία» έναντι χαμηλότερων των «αντιλήψεων για τη διοίκηση» (80,1 έναντι 45,8, $p<0,001$). **ΣΥΜΠΕΡΑΣΜΑΤΑ** Εκτός από τα συχνότερα λάθη κατά τη χορήγηση φαρμάκων, αναδεικνύεται η σημαντικότητα της αρμονικής συνεργασίας και του ομαδικού πνεύματος ως βέλτιστες πρακτικές ασφάλειας των ασθενών. Ως εκ τούτου, η συνεχής επιμόρφωση των νοσηλευτών που ασκούν έργο σε κλινικό περιβάλλον θα πρέπει να θεωρηθεί επιβεβλημένη για την αποφυγή νοσηλευτικών λαθών και κατ' επέκταση για την ασφάλεια των ασθενών.

Λέξεις ευρετηρίου: Αντιλήψεις νοσηλευτών, Ασφάλεια ασθενών, Κλινική πρακτική, Κλινικό περιβάλλον, Νοσηλευτικά λάθη, Στάσεις νοσηλευτών, Φαρμακευτικά λάθη

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