Albanian Journal of Trauma and Emergency Surgery (2026) 10/1: 1932-1939
DOI: 10.32391/ajtes.v10i1.489

ORIGINAL ARTICLES

Attitudes of Nurses Regarding Training Opportunities for the Use of Health Technology in Healthcare Institutions.

Edra Fresku[1*], Maranaj Marku[2], Julian Kraja[2], Sebastjan Mjekaj[2], Erjona Abazaj[3,4]

Received: 29 July 2025 / *Accepted:* 11 October 2025 / *Published online:* 20 January 2026
This article is published with open access at **https://journal.astes.org.al**

Abstract

Introduction: The integration of computer technology into healthcare is inevitable, and nurses' involvement is crucial to its practical use. Nursing informatics is a relatively new profession that meaningfully enhances healthcare delivery but is not yet implemented globally, nor consistently within regions of the same country.

Objective: To examine nurses' attitudes toward training courses on the use of health technology in health institutions within the Shkodra Municipality.

Materials and Methods: A cross-sectional, quantitative study was conducted in February and March 2022. Nurses working in the Shkodra Regional Hospital (63%) and health centers within the municipality (37%) were involved. A focus group format was used to assess nurses' attitudes, preparedness, and willingness to adopt health information technology, herein defined as [insert definition or examples of health information technology]. Descriptive statistics were used to quantify demographic and professional information. Cronbach's α and composite reliability were used to assess internal consistency and construct validity.

Results: The questionnaire was completed predominantly by female respondents (63.9%), 61.4% of whom were aged 22–40 years. Most nurses (27.6%) had 1–5 years of work experience. Reliability testing confirmed good convergence validity and internal consistency (Cronbach's $\alpha > 0.7$). Generally, nurses held positive attitudes toward the use of health technology, with a clear recognition of its potential to significantly enhance healthcare. However, the research also observed that technology applications were formally trained to a lesser extent, and their use in practice remained limited.

Conclusion: Shkodra nurses adopt an optimistic approach to the use of health technology in their daily practice, regardless of demographic and professional factors. The study, however, also highlights the urgency of curricular changes and regular professional development courses to bridge gaps in formal education and training.

Keywords: Nursing informatics, health technology, attitudes, training,

Introduction

The use of computer technology is an inevitable reality for nurses, who can already demonstrate their professional contributions to current healthcare systems [1]. Furthermore, nursing informatics is among the newest specialties and contributes significantly to the evolution of health care; however, its inclusion and implementation vary across countries and within countries by region [2]. However, for nurses to perform at their best, they need to be involved in the selection of new equipment and receive appropriate training to avoid increasing costs and exposing patients to errors [3].

Nurses should also be involved in the maintenance, training, monitoring, and reporting of technology-related

Original article, no submission or publication in advance or in parallel

* ***Corresponding author:***
Edra Fresku, MD
✉ *edra.fresku@unishk.edu.al*

1 Departments of Mathematics, Faculty of Natural Sciences, "Luigj Gurakuqi" University, Shkodra, Albania
2 Departm. of Preclinical Subjects, Faculty of Natural Sciences, "Luigj Gurakuqi" University, Shkodra, Albania
3 Institute of Public Health, Tirana, Albania
4 Faculty of Technical Medical Sciences, University of Medicine, Tirana, Albania

events that adversely affect health care [4].

The problems that nurses have with the use of technology begin with study curricula that do not provide adequate information on the importance of technology in the provision of health care [5].

Even in the curricula of the bachelor's study program in nursing at the University of Shkodra, a computer module is included. Still, it does not address the health systems used in hospitals and primary health centers. The deployment of information technology applications in healthcare requires organizational attention to develop viable, practical models that enable nurses and other healthcare providers to participate in processes to explore the use of new clinical information systems [6].

The two key concepts associated with changing practice are change processes, which concern observable actions that occur or occur differently, and transition processes, which concern emotional aspects of human experience [7]. Nurses' use of IT can influence their practice and enable the provision, documentation, and review of clinical care, thereby improving the quality and efficiency of medical care services [8].

A study in Germany found that nurses are interested in technologies that generate and/or use patient data to facilitate cross-professional and cross-sectoral communication [9]. From a study conducted at Shkodra Regional Hospital [10] and Health Centers in Shkodra [11] on nurses' performance, we observe significant shortcomings in the use of technology. One of the most common problems encountered in nurses' work is the need to enter data twice, once electronically and once manually.

This not only causes staff fatigue but also reduces time available for client care, creates dissatisfaction, and diminishes nurses' performance. Another problem is that nurses are rarely consulted about the technology to be introduced into their workplace. Often, nurses are afraid to adopt new technology because they believe it can be replaced by the technology itself [12].

Although with the advancement of nursing robotics, nurses and nursing science risk becoming passive spectators [13], they need to consider how technology will change practice and develop models that equip them with the competencies required to assume this leadership role [14]. We need to invest in the skills of health personnel to understand and adopt information technologies and not be intimidated by this potential [15]

The purpose of this study is to collect information on nurses' attitudes and on the provision of training opportunities for the use of health technology in Health Institutions in the Municipality of Shkodra.

Materials and Methods

Design

Cross-sectional methods were used, following a quantitative approach. The study assessed the following components: nurses' perceptions and willingness to use information technology, and the extent to which they were trained to use it, as a good opportunity to improve health care.

Data collection

The participants in this study were nurses from Shkodra Regional Hospital and the health centers of the Municipality of Shkodra. A focus group was used for this purpose. The study included 283 nurses from regional hospitals, 139 nurses from health centers, and 27 nurses in administrative roles. All data were obtained during the period February - March 2022.

Data collection

Data were collected using a questionnaire that focused on two main aspects: nurses' perceptions and willingness to use information technology, and their training in its use. The first part of the questionnaire comprises 10 questions on nurses' perceptions and willingness to use information technology, with simple yes/no responses.

The second part of the questionnaire comprises 9 questions that nurses can answer using predefined alternatives, each with 2, 3, or 4 alternatives. Additionally, for the 449 interviewed nurses, other demographic data were collected, including age, gender, place of residence, place of work, and years of nursing experience.

Ethical considerations

This paper respects data protection by being conducted anonymously. The study examined nurses' knowledge, readiness, and training in the use of information technology, rather than in research on human subjects.

Statistics

SPSS version 26.0 was used to analyze the data. Results were expressed as counts, percentages, standard deviations, and correlations. Descriptive and analytical analyses were conducted to enhance our understanding of the sample characteristics. Groups were compared using the unpaired t-test. Cronbach's alpha was computed to assess the internal consistency of the questionnaires. A p-value <0.05 was considered statistically significant. Essay responses were thematically categorized.

Results

A total of 449 samples were selected to be part of this study. The characteristics and the analyses of the participating nursing staff are presented in Table 1.

The mean age was 38.9±10.63 SD, with an age range from 22 to 64. We found that the majority of the participants were under 40 years old. Participants aged 20-30 years accounted for 30.2%, and participants aged 30-40 years accounted for 31.2%, representing the highest proportions among the age groups. Participants aged 41-51 years accounted for 20.5%, followed by those aged 51-60 years (16.9%), and only 1.2% were older than 60 years (Figure 1).

Variables		Frequency	Percentage	P value
Age group	20-30 years old	136	30.2	<0.0001
	31-40 years old	139	31.2	
	41-50 years old	92	20.5	
	51-60 years old	76	16.9	
	≥61 years old	6	1.2	
Gender	Male	162	36.1	0.02
	Female	287	63.9	
Residence	City	342	76.2	0.30
	Country	107	23.8	
Current status	Hospital Nurse	283	63.0	0.27
	Health Center Nurse	139	31.0	
	Nurse in Administration	27	6.0	
How many years of experience do you have working as a nurse?	1-5 years	124	27.6	0.88
	6-10 years	101	22.5	
	11-15 years	74	16.5	
	16-20 years	62	13.8	
	21-25 years	22	4.9	
	26-30 years	34	7.6	
	>30 years	32	7.1	

Table 1. Demographic and work characteristics of nursing staff

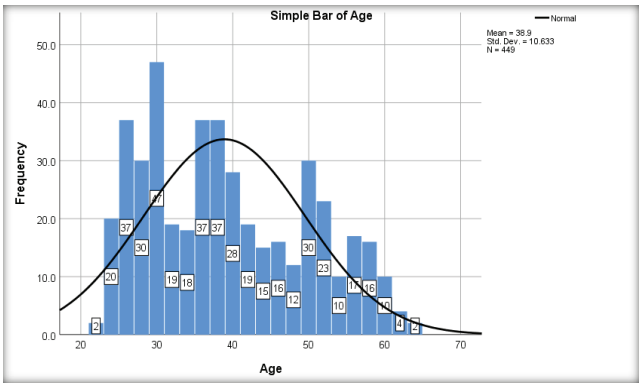

Figure 1. Distribution of participants by age

In terms of gender, the majority of participants were female (63.9%; 287/449), and males accounted for 36.1% (162/449). A significant association was found for gender (p = 0.021). In addition to participant characteristics, more than three-fourths (76.2%; 342/449) lived in the city, and the remainder (23.8%; 107/449) lived in the country. No significant association was found with participants' residence (p = 0.30).

Regarding the current status of work, the majority of participants were hospital nurses (63.0%; 283/449), followed by health center nurses (31.0%; 139/449), and only 6.0% (27/449) were nurses in administration. No significant association was found (p = 0.27).

Regarding seniority, the majority of participants, 27.6% (124/449), had 1 to 5 years of job experience, followed by nurses with 6-10 years of job experience, 22.5% (101/449). Participants with 11-15 years of job experience were 16.5% (74/449), those with 16-20 years were 13.8% (62/449), those with 21-25 years were 4.9% (22/449), and those with 26-30 years were 7.6% (34/449). Only 7.1% had more than 30 years of experience.

The reliability of the study's statistics is presented in the table below. Questionnaire A is based on nurses' information about the technology. This section comprises 10 questions. Almost all questions are dichotomous yes/no variables, except Questionnaire 6, which has three alternatives. Meanwhile, Questionnaire B concerns nurses' training and comprises nine questions in total, of which five are dichotomous, and three are multiple-choice.

The Cronbach's alpha for the technology section indicates good internal consistency (0.828), while the Cronbach's alpha for the training section indicates acceptable internal consistency (0.712). Statistical significance was observed for the questionnaires from two sections (p-value < 0.05).

	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No. of Items	P value
Technology section	.828	.840	10	0.0001
Training section	.712	.767	9	0.001

Table 2. Results of Cronbach's Alpha analysis

Table 3 shows the findings for each question included in the technology section. Almost 88.4% of nurses agreed with the inclusion of technology in the work process; 68.8% use technology in daily work; and 83.7% of nurses reported that the use of technology helps their work. However, only 42.1% of nurses reported that technology is mandatory. This occurred because 84.6% of nurses avoid using technology in their daily work. In addition, nurses were asked how they avoid the technology, and 26.3% reported that they do not use it at all, 20.5% perform the process manually, and 53.2% have it performed by another staff member.

In the following question in this section, all nurses are asked about their opinions on technology. Regarding whether technology increases the speed of health care delivery, 86% of nurses hold a favorable opinion; 80.4% think that the use of technology improves the quality of health care delivery; and 81.1% believe that the use of technology increases the security of health care delivery. In comparison, 81.7% believe that increasing the privacy of patients' health data (table 3).

In the training questionnaires, we sought to collect information on nurses' training in the use of new technology. More than half of nurses (57.2%) have been trained to use work-related technologies, and 75.1% have positive comments about the training.

Regarding the overall assessment of the training, 24.9% rated it slightly adequate, 36.3% rated it moderately effective, and 38.8% rated it very effective.

Meanwhile, approximately 72.8% of nurses believe that the use of technology by unskilled staff reduces the quality of health care delivery, and 62.1% believe that unskilled staff can lead to deficiencies in the provision of health care. Furthermore, approximately 74.5% of nurses believe that prior certification is required to use healthcare technologies, whereas 25.5% believe that anyone can use such technologies.

Regarding distance training, more than half of the nurses 68.2% have not been part of distance training, about 58.4% think that distance training is not practical, and the question of how often the nurses have encountered technical problems

Questionnaires	Number	Percentage
Do you agree with the inclusion of technology in the Nursing work process?		
Yes	397	88.4
No	52	11.6
Do you use technology in your work process?		
Yes	309	68.8
No	140	31.2
Do you think the use of technology helps you in this process?		
Yes	376	83.7
No	73	16.3
Is the use of technology mandatory in your work process?		
Yes	189	42.1
No	260	57.9
Can you avoid using technology in your work process?		
Yes	380	84.6
No	69	15.4
If yes, in what way?		
1. You don`t do it at all	118	26.3
2. Perform the process manually	92	20.5
3. Performed by another staff	239	53.2
Does the use of technology increase the speed of health care delivery?		
Yes	386	86.0
No	63	14.0
Does the use of technology increase the quality of health care delivery?		
Yes	361	80.4
No	88	19.6
Does the use of technology increase the security of health care delivery?		
Yes	364	81.1
No	85	18.9
Does the use of technology increase the privacy of patients' health data?		
Yes	367	81.7
No	82	18.3

Table 3. Questionnaires regarding the technology section

Questionnaires	No	%
Have you been trained to use the technologies used in the work process as a nurse?		
Yes	257	57.2
No	192	42.8
Your opinion about training related to technologies used in health:		
Yes	337	75.1
No	112	24.9
How do you assess the training in general?		
1. slightly effective	112	24.9
2. moderately effective	163	36.3
3. very effective	174	38.8
Do you think that the use of technologies by unskilled staff reduces the quality of health care delivery?		
Yes	327	72.8
No	122	27.2
Do you think that the use of technologies by unskilled staff can lead to fatalities in the provision of health care?		
Yes	279	62.1
No	170	37.9
Do you think that:		
1. certified prior knowledge is required for the use of technologies in healthcare	335	74.5
2. anyone can be a user of technologies used in healthcare	114	25.5
Have you been part of any distance training?		
Yes	143	31.8
No	306	68.2
Do you think distance training is effective?		
Yes	187	41.6
No	262	58.4
How often have you encountered technical problems during distance training?		
1. Never	92	20.5
2. Sometimes	178	39.6
3. Often	139	31.0
4. Always	40	8.9

Table 4. Questionnaires regarding the training section

				Age	Gender	How many years of experience do you have working as a nurse?	Current status:
	Technology section	Correlation Coefficient		.177**	-.016	.181**	-.048
		Sig. (2-tailed)		.000	.729	.000	.313
		95% Confidence Interval	Lower	.080	-.124	.090	-.132
			Upper	.267	.072	.270	.035
	Training section	Correlation Coefficient		.073	-.051	.104*	-.128**
		Sig. (2-tailed)		.120	.285	.027	.007
		95% Confidence Interval	Lower	-.023	-.151	.003	-.219
			Upper	.172	.057	.190	-.036

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 5. Correlation and relationships between the factors and nursing attitudes in their ability, technology, and training scores

during distance training, 8.9% referred always, 31.0% usually, 39.6% sometimes, and 20.5% never (Table 4).

Numerous factors influence nurses' intention to use technology, including age, gender, experience, and current status. In Table 5, we observed correlations between these factors and the questionnaire section used in this study. A strong, significant association was found between the technology section and nurses' age and seniority terms, with $p < 0.05$. Additionally, in the training section, we found a strong, significant association between seniority and nurses' current status ($p < 0.005$) (Table 5).

Discussion

Technological advancements have drastically changed the structure and organization of the nursing industry: From the adoption of electronic health records to advances in biomedical and engineering technologies that enable the development of ever more sophisticated technologies in health care, robotics technology, and artificial intelligence, these modal changes in modern healthcare and its methods of delivery have transformed the nursing industry [12].

The electronic documentation system represents a significant transformation in health care in many hospitals worldwide. Successful implementation of the system makes nurses' work easier, saves time, and improves the quality of patient care. However, little is known about the adoption of electronic health information systems in developing countries [15].

In this study, we sought to collect information from nurses about their perceptions of and experiences with the provision of training opportunities for the use of health technology in Health Institutions in the Municipality of Shkodra. The nurse participants' demographic profile showed a high proportion of female users (63.9%; 287/449), and that the majority of participants were between 22 and 40 years of age (61.4%; 275/449). Similar studies also show that most nurses are between 21 and 40 years of age [16, 17].

Liao and Lin report that nursing work involves rotating shifts, a three-shift system, and a high patient-to-nurse ratio; thus, for most nurses, work is physically demanding, and this is particularly challenging for nurses older than 50 years. For most of them, age is considered a significant challenge if they continue to work as practice nurses. For these reasons, the majority of nurses are younger than 40 years, and the number of nurses aged 40 years and older is gradually decreasing [17].

Furthermore, among the 449 participants, 63.9% (287/449) were female. Additionally, the majority of the nursing staff (63.0%; 283/449) were hospital nurses; the remainder were health care nurses and nurses in administration. Overall, the seniority characteristics of nurses resulted in a majority of the participants, 27.6% (124/449), having 1 to 5 years of job experience, followed by nurses with 6-10 years of job experience, 22.5% (101/449). Meantime, the composite reliability and Cronbach α were all greater than 0.7, indicating "acceptable" and "good" convergence validity and internal consistency overall.

The use of computerized systems in the 21st century has become a central feature of healthcare systems. The utilization of such systems by nursing staff enhances communication and optimizes the quality of care provided [18, 19]. However, nurses' attitudes toward computer use have been reported as a significant barrier to implementing computerized systems in healthcare settings. Various characteristics of nurses, the technology used, and the organizational environment influence attitudes toward computer use [20-22].

Based on statistical analysis of two sections of questionnaires, the nursing staff in this study showed significant differences in their perceptions and evaluations of all research variables.

The majority of nurses (88.4%) hold positive views on the inclusion of technology in their work processes, and more than half (68.8%) use the technology in their daily work. In the meantime, most nurses avoid the technology; 26.3% reported that they do use it at all, 20.5% perform the process manually, and 53.2% have it performed by another staff member. Additionally, nurses recognize that the use of technologies will make their work easier and increase their job satisfaction, and they recognize that implementing new technologies is important for improving healthcare services [21].

In this study, more than 80% of respondents believe that technology enhances the speed, quality, and security of healthcare delivery, while 81.7% believe it improves the privacy of patients' health data.

In general, people have a hard time adjusting to change especially when it involves technology, but our positive opinion findings were the same away as the other studies have a positive view of the benefits of the use of information technology in the healthcare services that have been reported a positive view of the benefits of the use of information technology in the healthcare services [18, 23, 24].

In the training section, almost half of the nurses (57.2%) have been trained to use the technologies used in the work process, and 75.1% have positive comments about the training.

Regarding how they assessed the training overall, 24.9% rated it slightly effective, 36.3% moderately effective, and 38.8% very effective. Besides that, most nurses 72.8% know that the use of technologies by unskilled staff reduces the quality of healthcare delivery, and 62.1% think that unskilled staff can lead to facilities in the provision of health care about 74.5% of nurses think that certified prior knowledge is required for the use of technologies in healthcare, while 25.5% think that anyone can be a user of technologies used in healthcare.

The effective use of information and communications technology requires nurses to be computer literate, but past research has indicated that nurses' "attitudes towards information and communications technology could be

influenced by their perceived skill levels [25].

Regarding distance training, approximately 58.4% of respondents believe it is ineffective. Regarding how often nurses have encountered technical problems during distance training, 8.9% always, 31.0% often, 39.6% sometimes, and 20.5% never.

Given that nurses' computer science competence is increasingly important in daily healthcare work, it was important to examine relationships between nurses' special skills in technology use and their technology training.

In relation to information technology skills and nurse training, simple correlations were used to describe the relationships between the factors and nursing attitudes, as reflected in personal ability, technology, and training scores. The results of the correlation test indicate that nurses' individual skill qualifications were statistically significant ($p < 0.05$) and correlated with the mean scores of two questionnaire sections. Overall, our findings are similar to those reported by Joseph et al. [25].

Conclusion

This research aimed to measure nurses' acceptance of new technologies across multiple healthcare facilities in Shkodra, Albania. Overall, the nurses in this study exhibited a positive attitude toward technology. Most accepted the use of technology in their work, regardless of age, gender, or years of nursing experience. However, participants' formal education in the use of technology applications was low. This shortcoming should be addressed by enhancing the nursing curriculum and training over time.

Given these results, stakeholders, other healthcare providers, and university curricula might consider expanding staff orientation and ensuring that nurses are trained in the use of technologies in the nursing profession. Nurses must be proficient in information technologies and understand how these technologies interface with various health care systems. The need for nurses to be well prepared to use and apply information technology in nursing, as well as emerging technologies, should be paramount. Nurses must be integral to the development processes for the inclusion of information technology in the health field.

COI Statement: This paper has yet to be submitted in parallel, presented fully or partially at a meeting, podium, or congress, published, or submitted for consideration beforehand.

No relevant or minor financial relationships exist between authors, their relatives, or the next of kin with external companies.

Disclosure: The authors declared no conflict of interest. No funding was received for this article.

References

1. Toromanovic, S., Hasanovic, E., & Masic, I. (2010). Nursing information systems. Materia socio-medica, 22 (3), 168–171. https://doi.org/10.5455/msm.2010. 22.168-171
2. Hanan Asiri. 2016. An Overview of Nursing Informatics (NI) as a Profession: How we Evolved Over the Years. In Proceedings of the International Joint Conference on Biomedical Engineering Systems and Technologies (BIOSTEC 2016). SCITEPRESS - Science and Technology Publications, Lda, Setubal, PRT, 200–212. DOI: https:// doi.org/10.5220/0005658202000212.
3. Topaz, M., Ronquillo, C., Peltonen, L. M., Pruinelli, L., Sarmiento, R. F., Badger, M. K., Ali, S., Lewis, A., Georgsson, M., Jeon, E., Tayaben, J. L., Kuo, C. H., Islam, T., Sommer, J., Jung, H., Eler, G. J., & Alhuwail, D. (2016). Advancing nursing informatics in the next decade: Recommendations from an international survey. In W. Sermeus, P. Weber, & P. M. Procter (Eds.), *Nursing Informatics 2016 - eHealth for All: Every Level Collaboration - From Project to Realization* (pp. 123-127). (Studies in Health Technology and Informatics; Vol. 225). IOS Press. https://doi.org/10.3233/978-1-61499-658-3-123
4. Powell-Cope G, Nelson AL, Patterson ES. Patient Care Technology and Safety. In: Hughes RG, editor. Patient Safety and Quality: An Evidence-Based Handbook for Nurses. Rockville (MD): Agency for Healthcare Research and Quality (US); 2008 Apr. Chapter 50. Available from: https://www.ncbi.nlm.nih.gov/books/NBK2686/
5. Forman, Tracia M.; Armor, David A.; Miller, Ava S. A Review of Clinical Informatics Competencies in Nursing to Inform Best Practices in Education and Nurse Faculty Development, Nursing Education Perspectives: 1/2 2020 - Volume 41 - Issue 1 - p E3-E7 DOI: 10.1097/01.NEP.0000000000000588
6. Moen, A., & Mæland Knudsen, L. M. (2013). Nursing informatics: decades of contribution to health informatics. Healthcare informatics research, 19(2), 86–92. https://doi.org/10.4258/hir.2013.19.2.86
7. Hussey, P. A., & Kennedy, M. A. (2016). Instantiating informatics in nursing practice for integrated patient-centred holistic models of care: a discussion paper. Journal of advanced nursing, 72(5), 1030–1041. https://doi.org/10.1111/jan.12927
8. Farokhzadian, J., Khajouei, R., Hasman, A. et al. (2020). Nurses' experiences and viewpoints about the benefits of adopting information technology in health care: a qualitative study in Iran. BMC Med Inform Decis Mak. 240. https://doi.org/ 10.1186/s12911-020-01260-5
9. Seibert, K, Domhoff, D, Huter, K, Krick, T, Rothgang, H, Wolf-Ostermann, K. (2020). Application of digital technologies in nursing practice: Results of a mixed methods study on nurses' experiences, needs and perspectives. Zeitschrift für Evidenz, Fortbildung und Qualität im Gesundheitswesen, Volume 158, 94 – 106. Elsevier. doi: 10.1016/j.zefq.2020.10.010
10. Kraja, J, Pjetri, E., Shala, İ. & Marku, M. (2015). Evaluation of Nursing Care Performance in the Department of Neurology at the Regional Hospital of Shkodra. Journal of

International Environmental Application and Science, 10 (4), 441-444. Retrieved from https://dergipark.org.tr/en/pub/jieas/issue/39030/459954

11. Kraja, J., & Pjetri, E. (2015). Evaluation of performance of nursing care in four Health Centres in the city of Shkodra. Journal of Environmental Protection and Ecology, 16(1), 316-321.
12. Pepito, J. A., & Locsin, R. (2018). Can nurses remain relevant in a technologically advanced future? International journal of nursing sciences, 6(1), 106–110. https://doi.org/10.1016/j.ijnss.2018.09.013
13. Eriksson H, Salzmann-Erikson M (2017). The digital generation and nursing robotics: a netnographic study about nursing care robots posted on social media. Nurs Inq 2017;24(2), e12165. https://doi.org/10.1111/nin.12165.
14. Huston, C. (May 31, 2013). "The Impact of Emerging Technology on Nursing Care: Warp Speed Ahead." *OJIN: The Online Journal of Issues in Nursing,* Vol. 18, No. 2, Manuscript 1.
15. Bajwa, J., Munir, U., Nori, A., & Williams, B. (2021). Artificial intelligence in healthcare: transforming the practice of medicine. Future Healthcare Journal, 8(2), e188–e194. https://doi.org/10.7861/fhj.2021-0095
16. Salameh Basma, Eddy Linda L, Batran Ahmad, Hijaz Asma, Jaser Shorook. Nurses' Attitudes Toward the Use of an Electronic Health Information System in a Developing Country. 2019; 5: 1–8. https://doi.org/10.1177/2377960819843711
17. Liao MC, Lin IC. Performance Evaluation of an Information Technology Intervention Regarding Charging for Inpatient Medical Materials at a Regional Teaching Hospital in Taiwan: Empirical Study. *JMIR Mhealth Uhealth*. 2020;8(3):e16381. Published 2020 Mar 25. doi:10.2196/16381
18. Ibrahim S, Donelle L, Sidani S, Regan S. Factors influencing Registered Nurses' intention to use Health Information Technology in clinical practice: an integrative literature review. Can J Nurs Inform 2019;14(1e2). https://tinyurl. com/yyu4b9us.
19. Sligo J, Gauld R, Roberts V, Villa L. A literature review for large-scale health information system project planning, implementation, and evaluation. Int J Med Inf 2017; 97: 86e97. https://doi.org/10.1016/j.ijmedinf.2016.09.007.
20. Ifinedo P. The moderating effects of demographic and individual characteristics on nurses' acceptance of information systems: a Canadian study. Int J Med Inf 2016;87:27e35. https://doi.org/10.1016/j.ijmedinf.2015.12.012.
21. Maram Abdullah Fadel, Ehab A. Omar Elfallah, Abdelbaset Elghriani. An Evaluation of the Attitudes of Healthcare Nurses Towards New Technologies. ICEMIS'20: Proceedings of the 6th International Conference on Engineering & MIS 2020September 2020 Article No.: 2Pages 1–6 https://doi.org/10.1145/3410352.3410731
22. Strudwick G. Predicting nurses' use of healthcare technology using the technology acceptance model. CIN: Comput Inform Nurs 2015;33(5):189e98. https://doi.org/10.1097/cin.0000000000000142
23. Buntin MB, Burke MF, Hoaglin MC, Blumenthal D. The benefits of health information technology: a review of the recent literature shows predominantly positive results. Health Aff 2011;30(3):464e71. https://doi.org/10.1377/hlthaff.2011.0178.
24. King J, Patel V, Jamoom EW, Furukawa MF. Clinical benefits of electronic health record use: national findings. Health Serv Res 2014;49(1pt2):392e404
25. Joseph Maria, Inayat Shafqat, Hussain Muhammad, Afzal Muhammad. Factors Influencing Nurses' Attitudes towards Information Technology in Nursing Practice. European Academic Research. 2019;7(3): 1751-69.