



Nurses' Opportunities Regarding the Importance of Artificial Intelligence Application in Pediatric Wards

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Abstract

Artificial intelligence (AI) is increasingly used in healthcare to advance patient care and nursing practice, allowing nurses to focus more on direct patient care and complex decision-making. This descriptive, cross-sectional study aimed to assess nurses' opportunities regarding the importance of AI applications in pediatric wards and to identify relationships with socio-demographic data. Conducted in Hillah, Iraq, from September 2025 to June 2026 at three hospitals (AL-Imam Al-Sadiq Teaching Hospital, Babel Teaching for Child and Maternity Hospital, and AL Noor Hospital), the study used a convenience sample of 250 nurses. Data were collected via a questionnaire and analyzed using descriptive and inferential statistics. Results showed that 36% of participants perceived moderate opportunities for AI use (mean $\pm$ SD = 3.34 ± 0.75), and significant relationships were found between opportunities and education level, department unit, and source of AI information ($p \leq 0.05$). The study concludes that one-third of nurses perceive moderate opportunities for AI in pediatric wards, and recommends that hospitals improve their technology infrastructure to enable safe and efficient AI integration.

Keywords: Artificial Intelligence, Pediatric Nursing, Opportunities, Nurses' Perceptions, Cross-Sectional Study

Introduction

Artificial intelligence is defined as "a system's ability to correctly interpret external data, learn from such data, and use those learnings to accomplish specific goals and tasks through flexible adaptation" (Heinlein & Kaplan, 2019). AI technology may improve nursing performance by supporting clinical judgment and increasing healthcare efficiency, yet traditional nursing practice depends on methodical clinical procedures (Pepito & Locsin, 2019). In the field of pediatric nursing, artificial intelligence presents a number of significant prospects. It can lessen the effort for nurses, help clinical decision-making, improve medication safety, and increase early detection of patient deterioration. AI technology also helps increase the accuracy of documentation and free up more time for nurses to provide direct patient care. By evaluating clinical and developmental data to direct suitable actions, AI may also promote individualized care in pediatric settings (Ramírez-Baraldes et al., 2025). Furthermore, AI can increase diagnostic accuracy and treatment outcomes via advanced data-driven systems, hence increasing both the efficiency and quality of healthcare delivery. These prospects demonstrate the potential utility of integrating AI into pediatric nursing practice to improve patient outcomes and healthcare performance (Castrillón Isaza et al., 2025). By enhancing illness prevention, diagnosis, treatment, outcomes, and clinical course prediction, data-driven technologies are transforming pediatric healthcare. However, the lack of high-quality data and the heterogeneity in children's growth continue to be major obstacles to creating trustworthy AI models in pediatrics (Park et al., 2025).

Recent literature has increasingly focused on pediatric nurses' perspectives toward AI integration. A mixed-method study conducted with 422 pediatric nurses in Turkey found that 69.5% held negative perceptions of AI in pediatric nursing, primarily due to concerns about loss of empathy, role reversal, ethical dilemmas, data privacy, and malpractice, despite recognizing AI's potential to reduce workload and errors (Tutar et al., 2025). Similarly, a qualitative study exploring pediatric nurses' views on AI-supported social robots found that while nurses acknowledged benefits such as reducing children's anxiety, improving treatment compliance, and decreasing workload, they also expressed significant ethical, security, and privacy concerns (Bodur et al., 2025). Another qualitative study involving 22 pediatric nurses reported that AI and robot nurses could reduce workload, systematize care, and decrease malpractice, but nurses worried about the inability to provide individualized care, emotional inadequacy, and ethical risks (Bodur et al., 2025). A study assessing perceived worries regarding AI adoption among 227 neonatal intensive care unit nurses found moderate levels of AI-related worries ($M = 3.2$, $SD = 0.9$), with education level and AI awareness emerging as significant predictors (Ayed et al., 2025). A systematic review on AI in pediatric chronic disease care concluded that although AI holds potential, most reviewed studies are small-scale research projects, and prospective clinical implementations are needed to validate effectiveness in real-world scenarios (Park et al., 2025). Another systematic review on AI in neonatal and pediatric intensive care units reported that the majority of AI models remain

within the testing and prototyping phase and have a high risk of bias, highlighting the gap between model design and clinical implementation (Park et al., 2025). Furthermore, a cross-sectional study among PICU nurses in China revealed that AI literacy partially mediates the relationship between AI attitude and AI self-efficacy, suggesting that improving AI literacy could enhance nurses' confidence in using AI technologies (Tseng et al., 2025).

Despite this growing body of evidence, several research gaps persist. First, most existing studies have been conducted in high-income or middle-income countries such as Turkey, China, the United Kingdom, Ireland, and Palestine, with limited data from Iraq or other conflict-affected, resource-constrained settings (Ayed et al., 2025). Second, previous research has primarily focused on nurses' anxiety, concerns, worries, and negative perceptions toward AI, whereas fewer studies have systematically assessed nurses' perceived opportunities regarding AI applications in pediatric wards (Tutar et al., 2025). Third, while some studies have examined the relationship between socio-demographic factors (e.g., education level, department, training) and AI-related outcomes such as anxiety or worries, limited research has explored how these factors relate specifically to nurses' perceptions of AI opportunities (Atalla et al., 2025). Fourth, the majority of published studies have employed qualitative or mixed-method designs with small sample sizes, leaving a need for larger cross-sectional quantitative studies that provide generalizable estimates of nurses' opportunities toward AI in pediatric settings. Finally, no published study to date has assessed pediatric nurses' opportunities regarding AI applications in Iraq, where healthcare infrastructure and technology readiness may differ significantly from other contexts.

To address these gaps, the present study was guided by the following research questions:

1. What is the level of nurses' perceived opportunities regarding the application of artificial intelligence in pediatric wards?
2. Is there a significant relationship between socio-demographic characteristics (e.g., education level, department unit, source of information about AI) and nurses' perceived opportunities regarding AI applications in pediatric wards?

Literature Review

Artificial intelligence has emerged as a transformative technology in healthcare, offering capabilities that range from predictive analytics and clinical decision support to robotic process automation and natural language processing (Heinlein & Kaplan, 2019). In nursing practice, AI is increasingly recognized for its potential to enhance clinical judgment, reduce documentation burden, and improve patient safety (Pepito & Locsin, 2019). Studies have shown that AI-driven tools can assist nurses in early detection of patient deterioration, medication error prevention, and workload management (Ramírez-Baraldes et al., 2025).

However, the successful integration of AI into nursing practice depends heavily on nurses' readiness, attitudes, and perceived opportunities regarding these technologies (Castrillón Isaza et al., 2025). Ghadami et al., (2026) clarifies a conceptual contours, highlights collaboration hubs led by the United States, India, and China, and delineates gaps that motivate future work on data governance, technical integration, and evaluation across sectors.

Pediatric nursing presents unique contexts for AI application due to the developmental variability of children, the need for family-centered care, and the high acuity of many pediatric units (Park et al., 2025). AI applications in pediatric settings have included predictive models for sepsis, early warning systems for clinical deterioration, and AI-assisted documentation tools (Park et al., 2025). Despite these advancements, the heterogeneity of pediatric growth and the lack of high-quality, standardized pediatric data remain significant barriers to developing reliable AI models (Park et al., 2025).

From the nursing perspective, AI offers several opportunities. It can reduce nurses' time spent on administrative tasks, allowing more focus on direct patient care and complex decision-making (Ramírez-Baraldes et al., 2025). AI can also enhance medication safety by providing real-time alerts and cross-referencing patient data (Bodur et al., 2025). Furthermore, AI-driven monitoring systems can facilitate early detection of patient deterioration in pediatric intensive care units, potentially improving outcomes (Park et al., 2025).

However, challenges persist. Nurses have expressed concerns regarding loss of empathy, depersonalization of care, ethical dilemmas surrounding data privacy, and the potential for AI to replace human judgment (Tutar et al., 2025; Bodur et al., 2025). A mixed-method study of 422 pediatric nurses in Turkey found that 69.5% held negative perceptions toward AI, with major concerns including role reversal, ethical issues, and malpractice risks, even though nurses acknowledged AI's potential to reduce workload and errors (Tutar et al., 2025). Similarly, a qualitative study involving 22 pediatric nurses reported that while AI and robot nurses could systematize care and decrease malpractice, nurses worried about the inability to provide individualized care and emotional inadequacy (Bodur et al., 2025).

Nurses' Perceptions, Attitudes, and Opportunities Toward AI

Several studies have examined nurses' attitudes and perceptions toward AI across various clinical settings. A cross-sectional online survey of German nurses (N = 305) found that while most participants had heard of AI, only a minority had received formal training, and attitudes were mixed, with concerns about job security and ethical implications (Sommer et al., 2024). Another study among operating room nurses in Turkey revealed that knowledge about AI was limited, and nurses with higher education levels and prior AI training demonstrated more positive attitudes (Durukan & Ayoğlu, 2025).

In pediatric nursing specifically, a study of pediatric nurses' use of generative AI found that competency levels were low, and most nurses had not received any formal education on AI (Yigit, 2026). Furthermore, a study assessing perceived worries regarding AI adoption among 227 NICU nurses in Palestine reported moderate levels of AI-related worries ($M = 3.2$, $SD = 0.9$), with education level and AI awareness as significant predictors (Ayed et al., 2025). The same study found that nurses who obtained information about AI from healthcare providers or professional sources had lower worry scores compared to those relying on mass media (Ayed et al., 2025).

A systematic review on AI in neonatal and pediatric intensive care units concluded that the majority of AI models remain within the testing and prototyping phase and have a high risk of bias, highlighting the gap between model development and clinical implementation (Park et al., 2025). Another systematic review emphasized that most studies are small-scale research projects, and prospective clinical implementations are urgently needed (Park et al., 2025).

Factors Associated with Nurses' Perceptions of AI

Research has identified several socio-demographic and professional factors associated with nurses' attitudes toward AI. Education level consistently emerges as a significant predictor, with nurses holding bachelor's or higher degrees demonstrating greater AI literacy and more positive attitudes (Tseng et al., 2025; Karaarslan et al., 2024). Work department or unit also influences perceptions; nurses working in critical care units such as NICUs and PICUs often report higher exposure to technological systems and may perceive more opportunities for AI integration (Sakrak & Dogan, 2025). Source of information about AI is another important factor; nurses who learn about AI through professional channels or formal training tend to have more accurate and positive perceptions compared to those relying on mass media or social media (Ayed et al., 2025). Additionally, prior attendance at AI training courses has been shown to improve nurses' AI self-efficacy and reduce technostress (Karaarslan et al., 2024; Sakrak & Dogan, 2025).

A study examining the effects of hospital information system adoption on pediatric nurses' techno-stress and job satisfaction found that while information systems increased efficiency, they also contributed to techno-stress among less technologically proficient nurses (Sakrak & Dogan, 2025). This finding underscores the importance of adequate training and institutional support.

Despite the growing body of literature, several gaps remain. First, most existing studies have been conducted in high- or middle-income countries such as Turkey, Germany, China, and Palestine, with scarce data from Iraq or other conflict-affected, resource-constrained settings (Ayed et al., 2025). Second, the majority of research has focused on nurses' anxieties, concerns, worries, and negative perceptions toward AI, while fewer studies have

systematically assessed nurses' perceived opportunities regarding AI applications, particularly in pediatric wards (Tutar et al., 2025). Third, limited research has explored how socio-demographic factors such as education level, department unit, and source of AI information relate specifically to perceived opportunities, as opposed to general attitudes or worries (Atalla et al., 2025). Fourth, many published studies have employed qualitative or mixed-method designs with small sample sizes, leaving a need for larger cross-sectional quantitative studies that provide generalizable estimates. Finally, no published study has assessed pediatric nurses' opportunities regarding AI applications in Iraq, where healthcare infrastructure, technology readiness, and educational opportunities may differ significantly from other contexts.

Methodology

Design and Setting

A descriptive, cross-sectional study design was employed. The study was conducted in Hillah, a city in Iraq, from September 15, 2025, to June 26, 2026. The research was conducted at three hospitals in Hillah City: AL-Imam Al-Sadiq Teaching Hospital, Babel Teaching for Child and Maternity Hospital, and AL Noor Hospital. A non-probability sampling technique was used to choose a convenient sample of 250 nurses.

Study Instrument

The questionnaire was adapted from a previous study by Wesa et al. (2025) and consisted of two parts:

Part (1): Demographical Data

This part focused on collecting basic socio-demographic characteristics, which consisted of seven items: sex, age, years of experience, department or unit, source of information received, level of education, and attendance at training courses related to artificial intelligence.

Part (2): Opportunities Scale

This section included sixteen items designed to measure nurses' opportunities in artificial intelligence using a Likert scale (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree).

Validity of Instrument

The study instrument was validated by eleven experts from different Iraqi universities and specialties. The experts who contributed to the validation of the questionnaire are included in the expert panel.

Reliability of Instrument

The instrument's reliability was assessed after a complete pilot study. Data were gathered from 25 nurses for this purpose. Using SPSS software version 25, internal consistency reliability was applied electronically to calculate Cronbach's alpha correlation coefficient. The results of the pilot study were statistically analyzed, and the results revealed that the reliability was estimated as $r = 0.861$ for opportunities for the application of artificial intelligence.

Data Collection Method

Data were gathered using an adopted and created questionnaire (Arabic translation) following the completion of the necessary approvals. To obtain oral consent, the researcher gave the participants an introduction and described the goal of the study. The participants (nurses) completed and responded to the questionnaire. It took about 10 to 15 minutes to complete the prepared tool using the self-report approach. The information was gathered starting December 27, 2025.

Statistical Data Analysis

The tabulation of collected data was analyzed by many statistical approaches, electronically using the Statistical Package for the Social Sciences (SPSS) version 22 and Microsoft Excel (2010). Descriptive statistical frequencies (no.), percent, mean, and standard deviation were analyzed. Non-parametric tests included the Mann-Whitney U test and the Kruskal-Wallis test.

Results

Socio-Demographic Characteristics of Participants

Table 1 shows that the highest percentage of respondents (44%) were from Babel Hospital. The majority of the sample (70.4%) were female, and almost half of the respondents (48.8%) were between 25-29 years of age, with an average age of 29.96 ± 6.06 years. Regarding work experience, 40.8% of nurses had between 1-5 years of experience.

In relation to the workplace, the general ward was the most frequent work environment (38.4%), followed by specialized units such as the NICU (17.2%) and the RCU (14%). More than half of the nurses (54.8%) were informed about artificial intelligence through mass media, and 47.2% had a diploma in nursing, while 38.4% had a nursing bachelor's degree or above. Finally, 89.2% of the nurses had not participated in any training courses on the topic of artificial intelligence.

Table 4.1: Socio-demographic data of the participants (N=250)

Variables	Categories	Frequency	Percentage
Hospital Name	Babel	110	44%
	Al-Imam Al-Sadiq	70	28%
	Al-Noor	70	28%
	Total	250	100%
Sex	Female	176	70.4%
	Male	74	29.6%
	Total	250	100%
Age Category	Less than 25	23	9.2%
	25-29	122	48.8%
	30-34	64	25.6%
	35-39	21	8.4%
	40 and above	20	8%
	Mean±SD	029.96± 6.06	
	Total	250	100%
Years of Experience	1-5 years	102	40.8%
	6-10 years	93	37.2%
	11-15 years	38	15.2%
	16-20 years	10	4%
	Above 20 years	7	2.8%
	Total	250	100%
Department / Unit	General ward	96	38.4%
	NICU	43	17.2%
	RCU	35	14%
	Neonetal Home Care	27	10.8%
	Emergency	26	10.4%
	Special word	23	9.2%
	Total	250	100%
Source of Information on AI	Mass media	137	54.8%
	Friend	44	17.6%
	Professionals	16	6.4%
	Health care provider	12	4.8%
	Others	41	16.4%
	Total	250	100%
Level of Education	Secondary school of nursing	36	14.4%
	Nursing Diploma	118	47.2%
	Nursing Bachelor and above	96	38.4%
	Total	250	100%
Attending Training Courses	No	223	89.2%
	Yes	27	10.8%
	Total	250	100%

Table 4.2: Responses of participants regarding opportunities of application of Artificial Intelligence (N=250)

Table 4.2 show that the maximum mean is 3.61 with the item (AI delivers high-quality data in real time), and 3.54 with the items (AI can improve operational efficiency). While the minimum mean is 2.89 with the item (AI agent better than employee in routine jobs).

Table 4.3: Overall opportunities of application of Artificial Intelligence

Intervals	Frequency	Percentage
Low Opportunities (1.00 – 1.80)	4	1.6%
Mild Opportunities (1.81 – 2.60)	40	16%
Moderate Opportunities (2.61 – 3.40)	90	36%
High Opportunities (3.41 – 4.20)	85	34%
Very high Opportunities (4.21 – 5.00)	31	12.4%
Total	250	100%
Mean± SD	3.34± 0.75	

Table 4.3 revealed that 36% of participants having a moderate opportunities and 34% of participants having a high opportunities with a mean± SD is (3.34± 0.75) as showed in figure 4.1.

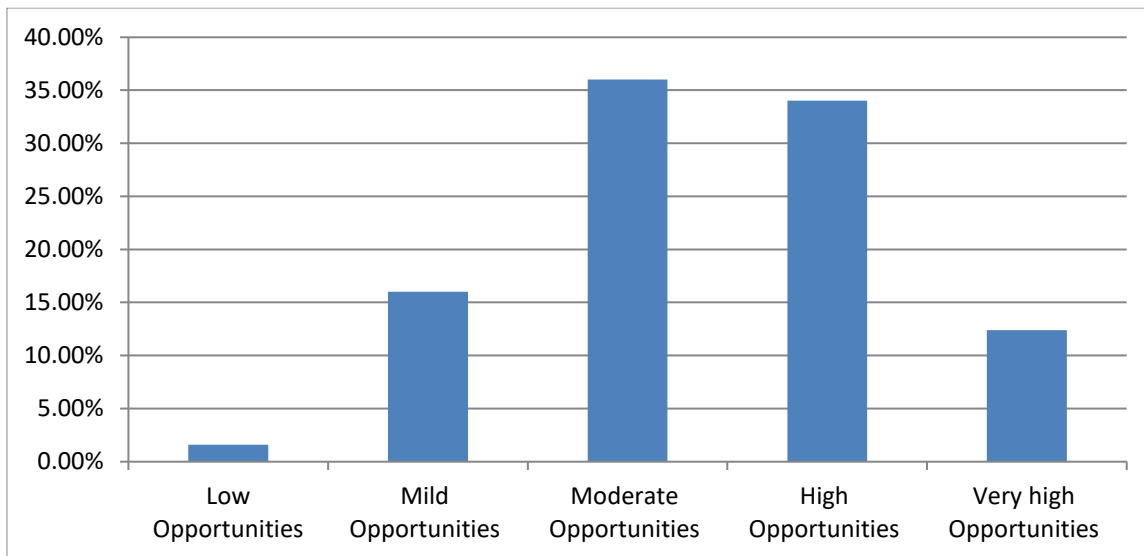


Figure 4.1: Percentage of opportunities of application of Artificial Intelligence (n=250)

Table 4.6: Relationship between socio-demographic data and overall opportunities of AI (n=250)

Demographic Variable	Category	Mean $\pm$ SD	Statistical Test	P-value	Sig.
Hospital Name	Al-Imam Al-Sadiq	54.39 $\pm$ 12.54	Kruskal-Wallis	0.689	N.S
	Al-Noor	52.89 $\pm$ 13.57			
	Babil	53.20 $\pm$ 10.53			
Sex	Female	53.64 $\pm$ 12.08	Mann-Whitney	0.763	N.S
	Male	53.01 $\pm$ 11.84			
Age	$\leq$ 29 years	53.10 $\pm$ 11.63	Mann-Whitney	0.381	N.S
	$\geq$ 30 years	53.93 $\pm$ 12.52			
Experience	1–10 years	53.18 $\pm$ 11.47	Mann-Whitney	0.376	N.S
	Above 10 years	54.40 $\pm$ 13.76			
Education	University	55.45 $\pm$ 10.40	Mann-Whitney	0.045	Sig.
	Technical	52.21 $\pm$ 12.76			
Department	Critical Care	57.00 $\pm$ 13.01	Mann-Whitney	0.000	Sig.
	General Ward	51.84 $\pm$ 11.17			
Training	No	53.30 $\pm$ 12.08	Mann-Whitney	0.654	N.S
	Yes	54.67 $\pm$ 11.33			
Source of Info	Mass Media	51.41 $\pm$ 11.89	Kruskal-Wallis	0.002	Sig.
	Friend	57.91 $\pm$ 11.00			
	Professionals	52.94 $\pm$ 9.97			
	Health Provider	61.92 $\pm$ 10.89			
	Others	53.22 $\pm$ 12.51			

N.S = Non-Significant ($p > 0.05$)

Table (4.6) shows a significant relationship between socio-demographic data and overall opportunities of AI at $p\text{-value} \leq 0.05$ in relation to (education, department, training, and source of information). Except with (hospital, age, sex, and experience) that there were a non-significant association.

Discussion

Socio-Demographic Characteristics of the Study Sample:

Table 4.1 presents the socio-demographic characteristics of the participants. The findings indicate that nearly two-thirds of the respondents were female nurses aged 25–29 years with 1–5 years of clinical experience. In addition, approximately two-fifths were employed in pediatric general wards. These results may reflect the predominance of young female nurses in pediatric settings as well as current staffing patterns in healthcare institutions.

Regarding educational background and knowledge of artificial intelligence (AI), more than half of the participants reported that media platforms were their primary source of information on AI applications, while only a small proportion had participated in formal AI training. This suggests limited institutional support and insufficient educational opportunities related to AI integration in nursing practice. The reliance on media sources may also lead to superficial awareness rather than comprehensive professional understanding of AI applications in pediatric healthcare settings.

These findings are consistent with previous studies (7–9), which similarly reported that most participants were female nurses and that only a minority had received formal training in artificial intelligence. The convergence of these results highlights the persistent gap in AI education and training among nurses across different healthcare systems.

Overall Evaluation of Artificial Intelligence Opportunities Application

More than one-third of the participants reported moderate opportunities for the application of artificial intelligence (AI), as shown in Tables 4.2 and 4.3 and Figure 4.1. This finding suggests that nurses recognize the potential of AI to enhance patient care, reduce medical errors, support clinical decision-making, and improve the overall quality of healthcare services. However, nurses may find it more challenging to apply AI in pediatric departments due to insufficient training programs and a lack of practical experience. The findings of the current study are consistent with those of a study by (10), which discovered that pediatric nurses had limited positive views toward the employment of AI. The results support the conclusions of (11). In contrast, they argued that AI provides opportunities in nursing practice by lowering load, enhancing paperwork, and monitoring patients. The findings differ from those of a study by (12), which revealed that nurses had very positive attitudes toward AI. This disparity could be explained by variations in institutional support, training opportunities, and technical preparedness among healthcare facilities.

Overall, the finding underlines the importance of ongoing AI education programs to improve nurses' skills and readiness for AI integration in pediatric nursing practice.

Correlation between socio-demographical characteristics and Opportunities toward application of Artificial Intelligence in pediatric ward:

Table 4.6 showed statistically significant relationships between perceived prospects for AI use, working department, educational level, and information source. While nurses working in pediatric departments may be more exposed to digital systems and monitoring technologies, higher education levels may boost nurses' understanding of technology and preparedness for AI incorporation.

The findings are consistent with a study (13) that indicated using hospital information systems reduced techno-stress while increasing nurses' job happiness and productivity. Similarly, (14) and (15) found that nurses' educational attainment and academic comprehension have a positive impact on their adoption and use of AI technologies.

However, (16) asserts that there is no significant relationship between the use of AI and the information source. This disparity may be related to variations in hospital settings' access to practical training and institutional support. Overall, the findings highlight the significance of academic preparation, continuing education, and institutional support in enhancing nurses' perceptions of AI prospects in pediatric nursing practice.

Conclusion

This study assessed pediatric nurses' perceived opportunities regarding the application of artificial intelligence (AI) in pediatric wards in Hillah, Iraq, and examined the relationship between these opportunities and socio-demographic characteristics. The findings revealed that nearly two-thirds of the participants were female nurses aged 25–29 years with one to five years of clinical experience, and two-fifths worked in general pediatric wards. Notably, more than half of the nurses identified social media platforms as their primary source of information about AI applications, while only a very small minority had attended formal AI training courses. This suggests a significant gap in structured AI education within nursing curricula and continuing professional development programs in Iraq. Regarding the main study outcome, approximately one-third of the participants perceived moderate opportunities for using AI in pediatric wards, with an overall mean score of 3.34 ± 0.75 on a five-point scale. This moderate level indicates that while nurses recognize some potential benefits of AI—such as delivering high-quality real-time data and improving operational efficiency—they remain cautiously optimistic, likely due to limited formal exposure and hands-on experience with AI technologies. Furthermore, the study identified statistically significant relationships between perceived AI opportunities and key socio-demographic variables, including education level, department unit, and source of information about AI. Nurses working in critical care units (e.g., NICU, RCU) and those with higher educational qualifications (nursing bachelor's degree or above) reported higher perceived opportunities, as did those who obtained AI-related information from healthcare providers or professional

sources rather than mass media. These findings underscore the importance of targeted educational interventions, department-specific AI training, and reliable information channels in shaping positive perceptions of AI among pediatric nurses. To enable the safe, ethical, and efficient integration of AI into pediatric nursing practice, hospitals and nursing institutions should prioritize improving technology infrastructure, integrating AI literacy into nursing education, and offering hands-on training workshops tailored to pediatric settings. Future research should explore longitudinal changes in nurses' AI perceptions following structured training and examine the actual implementation of AI tools in pediatric wards.

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References

- Atalla, A. D. G., El-Gawad Mousa, M. A., & Hashish, E. A. A. (2025). Embracing artificial intelligence in nursing: Exploring the relationship between artificial intelligence-related attitudes, creative self-efficacy, and clinical reasoning competency among nurses. *BMC Nursing*, 24, 661. <https://doi.org/10.1186/s12912-025-03306-3>
- Ayed, A., Batran, A., & Aqtam, I. (2025). Perceived worries in the adoption of artificial intelligence among nurses in neonatal intensive care units. *BMC Nursing*, 24, 777. <https://doi.org/10.1186/s12912-025-03318-z>
- Bodur, G., Cakir, H., & Turan, S. (2025). Artificial intelligence in nursing practice: A qualitative study of nurses' perspectives on opportunities, challenges, and ethical implications. *BMC Nursing*, 24, 1263. <https://doi.org/10.1186/s12912-025-03775-6>
- Castrillón Isaza, K. A., Giraldo Restrepo, J. C., & García Uribe, J. C. (2025). Risks and opportunities of artificial intelligence in nursing care: A scoping review. *Trilogía Ciencia Tecnología Sociedad*, 17(35), e3272. <https://doi.org/10.22430/21457778.3272>
- Durukan, N., & Ayoğlu, R. G. T. (2025). Knowledge and opinions of operating room nurses about artificial intelligence: A descriptive cross-sectional study. *Journal of Clinical Nursing. Advance online publication*. Retrieved from <https://api.semanticscholar.org/CorpusID:281385107>
- Ghadami, A., Abdsharafat, M., Rostamzadeh, R., & Kazemi Miyangaskary, M., (2026). AI-Powered supply chains: Mapping the future of resilience and sustainability, *Industrial Management Journal*, 18(2), 213- 241. <https://doi.org/10.22059/imj.2026.410606.1008286>
- Heinlein, M., & Kaplan, A. (2019). A brief history of artificial intelligence: On the past, present, and future of artificial intelligence. *California Management Review*, 61(4), 5–14. <https://doi.org/10.1177/0008125619864925>
- Karaarslan, D., Kahraman, A., & Ergin, E. (2024). How does training given to pediatric nurses about artificial intelligence and robot nurses affect their opinions and attitude levels? A quasi-experimental study. *Journal of Pediatric Nursing*, 77, e211–e217. <https://doi.org/10.1016/j.pedn.2024.04.031>
- Park, T., Lee, I.-H., Lee, S. W., & Kong, S. W. (2025). Artificial intelligence in pediatric healthcare: Current applications, potential, and implementation considerations. *Clinical and Experimental Pediatrics*, 68(9), 641–651. <https://doi.org/10.3345/cep.2025.00962>

- Pepito, J. A., & Locsin, R. (2019). Can nurses remain relevant in a technologically advanced future? *International Journal of Nursing Sciences*, 6, 106–110. <https://doi.org/10.1016/j.ijnss.2018.09.013>
- Ramírez-Baraldes, E., García-Gutiérrez, D., & García-Salido, C. (2025). Artificial intelligence in nursing: New opportunities and challenges. *Journal of Nursing Management*. Advance online publication. <https://doi.org/10.1111/jonm.70033>
- Sakrak, B., & Dogan, A. K. (2025). The effects of hospital information system adoption on techno-stress and job satisfaction of nurses working in pediatric clinics. *BMC Nursing*, 24, 745. <https://doi.org/10.1186/s12912-025-03371-8>
- Sommer, D., Schmidbauer, L., & Wahl, F. (2024). Nurses' perceptions, experience and knowledge regarding artificial intelligence: Results from a cross-sectional online survey in Germany. *BMC Nursing*, 23, 205. <https://doi.org/10.1186/s12912-024-01884-2>
- Tseng, L.-P., Huang, L.-P., & Chen, W.-R. (2025). Exploring artificial intelligence literacy and the use of ChatGPT and Copilot in instruction on nursing academic report writing. *Nurse Education Today*, 147, 106570. <https://doi.org/10.1016/j.nedt.2025.10657>
- Tutar, Ş., Özgörü, H., & Ögür, Z. (2025). Determining pediatric nurses' anxiety levels, concerns, and metaphor perceptions towards artificial intelligence technologies: A mixed-method study. *Journal of Pediatric Nursing*, 85, 441–450. <https://doi.org/10.1016/j.pedn.2025.09.005>
- Wesa, N. S. N., Mohammed, M. A., & Mohammed, N. A. A. (2025). Nurses' opportunities and challenges regarding application of artificial intelligence in intensive care units. *Assiut Scientific Nursing Journal*, 13(48), 105–119. <https://doi.org/10.21608/asnj.2025.330309.1939>
- Yigit, D. (2026). Pediatric nurses' use of generative artificial intelligence and their competency levels. *Journal of Pediatric Nursing*, 88, 429–434. <https://doi.org/10.1016/j.pedn.2026.03.013>

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