

ASSESSING ELECTRONIC HEALTH RECORD (EHR) IMPLEMENTATION READINESS AND PERCEIVED BARRIERS AMONG NURSES

Dissertation Submitted to



The IIHMR University, Jaipur

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Master of Business Administration (MBA)

in

Hospital and Health Management

by

Riya Gupta

Under the Supervision and Guidance of

Dr. Piyusha Majumdar

2025

Certificate of Internship

This is to certify that **Riya Gupta** has successfully completed a internship on the topic of “Assessing Electronic Health Record (EHR) Implementation Readiness and Perceived Barriers Among Nurses” at **Karexpert Technologies Pvt. Ltd.** from **10th March, 2025** to **10th June, 2025**.

During the internship, Riya Gupta demonstrated a strong understanding of accounting principles and practices, and contributed significantly to our team.

We appreciate her dedication, hard work, and enthusiasm during the internship period.

We wish her all the best for her future endeavours.

For **KareXpert Technologies Pvt. Ltd.**

Pooja Chaudhary



H.R Manager

Dated: - 10-06-2025

CERTIFICATE

This is to certify that dissertation titled **Assessing Electronic Health Record (EHR) Implementation Readiness and Perceived Barriers Among Nurses** is a record of the research work undertaken by Riya Gupta in partial fulfilment of the requirements for the award of the degree of MBA (Hospital and Health Management) from the IIHMR University, Jaipur under my guidance and supervision and her approach to the research study has been sincere, scientific, and analytical.

A handwritten signature in blue ink, appearing to read 'Piyusha'.

Prof. Piyusha Majumdar

Faculty Guide
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A handwritten signature in blue ink, appearing to read 'Dr. Sanjay Gupta'.

Dr. Sanjay Gupta
School Dean
IIHMR University, Jaipur
Date

DECLARATION BY STUDENT

I hereby declare that this dissertation titled **Assessing Electronic Health Record (EHR) Implementation Readiness and Perceived Barriers Among Nurses** the Bonafide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.

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PREFACE

In today's rapidly evolving healthcare landscape, digital transformation has become essential to improving the quality, safety, and efficiency of patient care. Among these innovations, Electronic Health Records (EHRs) play a pivotal role in streamlining clinical workflows, enhancing communication, and enabling data-driven decision-making. However, the success of EHR implementation depends not only on technology but also on the readiness and engagement of its users, particularly nurses, who are the backbone of healthcare delivery.

As part of the academic curriculum, a three-month dissertation is incorporated in the second year to provide students with an opportunity to engage with the ground realities of healthcare management. I consider myself fortunate to have undertaken my dissertation with **KareXpert**, which provided me with valuable exposure to the functioning of government health initiatives at the state level.

This research, conducted at Dr. Vasant Rao Pawar Medical College, Nashik, focused on assessing the readiness of nursing staff and identifying perceived barriers to EHR implementation through a mixed-methods approach. The topic was chosen based on both its practical relevance and its alignment with the ongoing shift toward digital health in India. Nurses are often underrepresented in health IT discussions, yet they are among the most affected by changes in documentation systems and clinical processes. By focusing on their perspectives, this study aims to highlight the critical factors influencing the adoption of EHR systems, including training, system usability, administrative support, and workflow integration.

This dissertation represents not just an academic pursuit, but also a learning journey that deepened my understanding of healthcare technology, change management, and frontline challenges in a digital environment. I am grateful for the opportunity to engage in research that contributes to improving digital readiness in the healthcare sector.

ACKNOWLEDGEMENT

This dissertation is the culmination of a significant learning experience, and I would like to express my deepest gratitude to all those who supported me throughout this journey.

First and foremost, I am sincerely thankful to **IIHMR University, Jaipur**, for providing me with the academic framework and opportunity to undertake this research as part of the MBA in Hospital and Health Management program. The knowledge and guidance received throughout my coursework laid the foundation for this study.

I extend my heartfelt thanks to **Mrs. Amrita Agarwal**, under whose mentorship at **KareXpert** I was able to explore the practical dimensions of Electronic Health Record (EHR) implementation. Her valuable insights, encouragement, and constructive feedback throughout the project were instrumental in shaping the direction of my research. The exposure I received under her supervision significantly enriched my understanding of digital health transformation in real-world settings.

I also express my sincere appreciation to my faculty guide, Prof. Piyusha Majumdar, for her continuous academic guidance, insightful suggestions, and unwavering support throughout the dissertation process. Her expertise and mentorship were vital to ensuring the academic rigor of this work.

I am equally thankful to the management and nursing staff at **Dr. Vasant Rao Pawar Medical College, Nashik**, for their cooperation and participation in this study. Their perspectives, openness, and involvement were key to the success of this research.

Lastly, I wish to acknowledge the constant encouragement and moral support of my family and friends, who stood by me through every stage of this journey.

This dissertation is a result of collective efforts, and I remain grateful to each individual and institution that contributed to its completion.

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Assessing Electronic Health Record (EHR) Implementation Readiness and Perceived Barriers Among Nurses

Chapter 1: Introduction

1.1 Background Information Digital innovations are transforming the global healthcare industry. Implementing Electronic Health Records (EHRs) is a key aspect of this change. EHRs are computerized versions of paper charts that store medical history, diagnosis, prescriptions, treatment plans, vaccination dates, allergies, radiological pictures, and laboratory test results. EHRs aim to improve the quality of healthcare by improving provider communication, minimizing medical errors, and promoting coordinated care among providers. EHRs aim to improve healthcare delivery by improving communication, decreasing errors, and encouraging coordinated treatment.

In India, the government's National Digital Health Mission (NDHM) wants to establish an effective digital health ecosystem, with EHRs acting as an essential component. Despite these regulatory attempts and the perceived benefits of EHRs, implementing them remains an uphill battle. One of the most important yet frequently ignored groups in this digital revolution is the nursing profession. Nurses are the backbone of healthcare delivery, with significant involvement in patient records and information management, making them critical stakeholders in the EHR ecosystem.

However, many issues usually impede nurse use of EHRs. These include inadequate instruction, longer documentation times, poor system design, opposition to change, and restricted participation in the implementation process of planning. These constraints not only reduce the provision of healthcare efficiency, additionally they contribute to nursing dissatisfaction and burnout.

It is essential in assessing nurses' preparedness for EHR implementation in order to guarantee a seamless transition. When we talk about nurse preparedness we're talking about how ready nurses are to embrace and use EHR systems. Their attitudes, abilities, perceptions of the system's value, and the assistance they're getting from the company are all included. Designing focused interventions and support mechanisms can be significantly easier by having a complete picture of preparation levels and perceived impediments.

Therefore, this study adopts a mixed-methods approach to evaluate nurses' perceived challenges to EHR placement as well as their preparation for it. In doing so, it aims to offer recommendations based on evidence that may promote India's transition to digital health in a way that is more sustainable, successful, and comprehensive.

1.2 Problem Statement EHR implementation continues to face challenges in India, particularly from frontline nursing staff. These challenges include a lack of technical training,

resistance to change, and concerns regarding increased workload and system usability. Addressing these challenges requires a deep understanding of readiness levels and perceived barriers among nurses.

1.3 Objectives

- To assess the level of readiness among nurses for EHR implementation.
- To identify key perceived barriers affecting EHR usage by nurses.
- To examine the association between demographic variables and EHR readiness.
- To recommend strategies to enhance EHR adoption among nursing staff.

1.4 Research Questions

1. What is the current level of readiness among nurses for EHR implementation?
2. What are the major perceived barriers to EHR adoption by nurses?
3. How do demographic factors influence readiness for EHR adoption?

1.5 Significance of the Study As digital health continues to grow in importance, understanding the perspectives of nurses—the largest segment of the healthcare workforce—is essential for the successful implementation of EHR systems. Nurses' readiness and their perceptions of barriers can significantly influence the outcome of digital initiatives. This study not only contributes to academic understanding but also has practical implications for policymakers, hospital administrators, and healthcare IT developers. By identifying the readiness level and barriers, institutions can create tailored strategies that promote engagement, reduce resistance, and enhance the effectiveness of EHR systems. Ultimately, this leads to improved patient care, better clinical outcomes, and a more digitally empowered healthcare system.

Author(s) & Year	Title	Methodology	Key Findings	Relevance to Present Study	
Ajami & Bagheri-Tadi (2013)	Barriers to implement Electronic Health Records (EHRs)	Literature review	Identified technical, financial, and user-related barriers	Highlights common global EHR barriers relevant to nursing	
Kruse et al. (2016)	Barriers to Electronic Health Record Adoption: a Systematic Literature Review	Systematic review	Lack of training, privacy concerns, and usability issues	Supports focus on training and usability in readiness	
Tubaishat (2017)	Perceived Barriers to Using Electronic Health Records in Jordan	Quantitative survey	Nurses reported fear of technology and insufficient support	Emphasizes need for training and organizational backing	
Kossmann & Scheidehelm (2008)	Nurses' Perceptions of the Impact of EHRs	Qualitative interviews	Mixed perceptions—some found EHRs helpful, others reported increased workload	Shows dual nature of EHR impact on nurses' workflow	
Gagnon et al. (2012)	Assessment of EHR Readiness	Cross-sectional study	Readiness linked to attitude, prior exposure, and support systems	Basis for measuring EHR readiness and influencing factors	
McBride et al. (2017)	Factors Influencing Nurse Readiness for EHR Implementation	Literature review Perceived Barriers Perceived Barriers Perceived Barriers	Readiness influenced by tech knowledge, support, and perceived usefulness	Demonstrates key factors shaping readiness	
Topaz et al. (2016)	Nurses' Perspectives on EHR Use and Implementation	Mixed-methods study	Identified awareness of EHR benefits but challenges like training gaps and system complexity	Illustrates need for better support and usability	

Chapter 3: Methodology

3.1 Study Design This research utilized a mixed-methods, cross-sectional design to comprehensively assess both the quantitative and qualitative aspects of EHR implementation readiness among nurses. The mixed-methods approach allowed triangulation of data—combining numerical data from structured questionnaires with in-depth qualitative insights from interviews—to provide a more holistic understanding of the issues at hand.

3.2 Study Site The study was conducted at Dr. Vasant Rao Pawar Medical College in Nashik, Maharashtra. This tertiary care teaching hospital was selected for its active involvement in health IT adoption and its diverse nursing workforce. The setting provided a suitable environment for studying EHR readiness and identifying practical barriers within an operational healthcare facility.

3.3 Study Population and Sample Size The target population for the study consisted of registered nurses working at the institution. A total of 50 nurses participated in the study, selected through convenience sampling. This approach was selected since it was practical, and participants could easily access it in a hospital environment. Active participation in patient documentation procedures and a minimum of six months of work experience were criteria for inclusion. The feasibility of this approach and the participants' accessibility in a hospital context led to its selection. Being an employee for at least six months and actively participating in patient documentation processes were prerequisites for participation.

3.4 Data Collection Tools The qualitative and quantitative approaches were used to guarantee comprehensive information collection:

- **Quantitative Data Collection:** Participants were supplied with a standardized questionnaire that was created. Demographic data and items using a Liker scale with five points to rate aspects including perceived support, system usability, training level, and EHR preparedness were included in the questionnaire.
- **Qualitative Data Collection:** Selected medical professionals and nursing supervisors were interviewed in-depth, semi-structured interviews. The aim of the interviews is to get detailed information about the implementation of electronic health records, such as perceptions of readiness, recommendations, and experiential obstructions

3.5 Data Analysis The methods listed above were used to look into the data that was collected:

- **Quantitative Analysis:** Microsoft Excel was utilized for the compilation and analysis of the structured questionnaire responses. Descriptive statistics (means, frequencies, and percentages) were used to summarize demographic data and EHR readiness scores. Correlation analysis was also conducted to explore relationships between readiness scores and demographic variables such as age, years of experience, and prior exposure to IT systems.

- **Qualitative Analysis:** The qualitative data from interviews were transcribed and analyzed using thematic analysis. Open coding was employed to identify recurring patterns and themes, which were later grouped under broader categories such as training needs, administrative involvement, and system usability challenges.

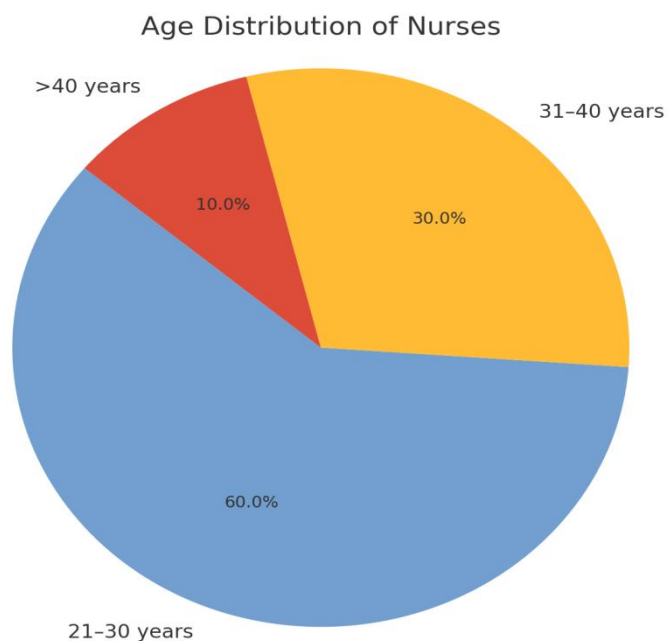
3.6 Ethical Considerations Ethical integrity was maintained throughout the study. Approval was obtained from the Institutional Ethics Committee prior to data collection. All participants provided informed consent and were assured of confidentiality and anonymity. The data were stored securely and used solely for academic research purposes. Participants were informed of their right to withdraw from the study at any point without any consequence.

Chapter 4: Results

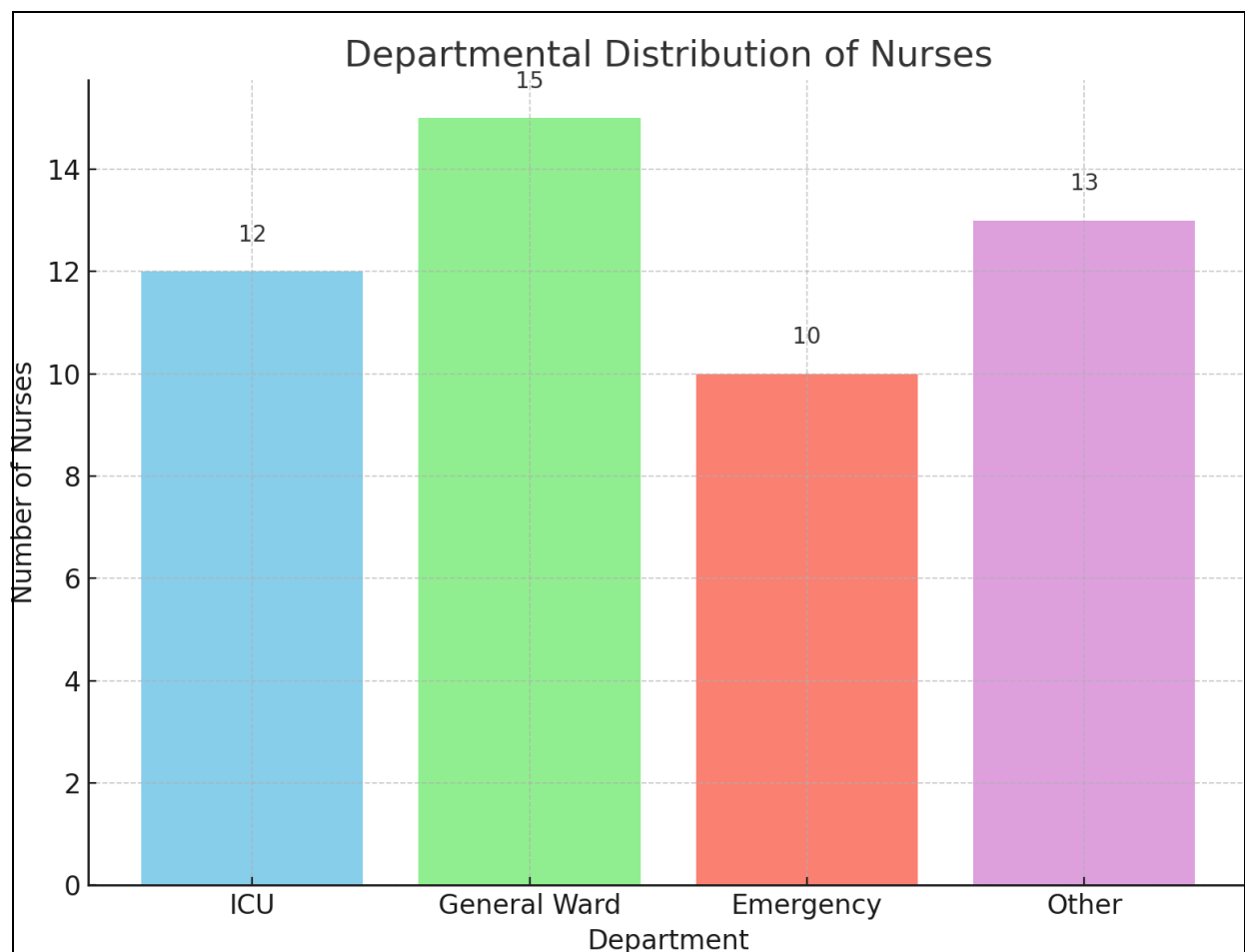
4.1 Demographic Profile of Respondents

A total of 50 registered nurses participated in the study. The demographic characteristics are summarized below:

Variable	Categories	Frequency (n)	Percentage (%)
Age	21–30 years	30	60%
	31–40 years	15	30%
	>40 years	5	10%
Gender	Female	42	84%
	Male	8	16%
Years of Experience	<1 year	8	16%
	1–5 years	22	44%
	>5 years	20	40%
Department	ICU	12	24%
	General Ward	15	30%
	Emergency	10	20%
	Other	13	26%



Insert Figure 1: Pie chart showing age distribution



Insert Figure 2: Bar chart showing departmental distribution

The study included a total of 50 registered nurses from various departments, providing a diverse representation of healthcare professionals involved in patient care and hospital operations. Most of the respondents (60%) were in the age group of 21 to 30 years, indicating a relatively young nursing workforce. Nurses aged between 31 and 40 years made up 30% of the participants, while only 10% were above 40 years of age, reflecting a smaller proportion of highly experienced senior nurses.

In terms of gender distribution, the profession remains female-dominated, with 84% of the respondents being female and 16% male. This aligns with common trends in the nursing profession both nationally and globally.

In terms of professional experience, mid-level professionals were significantly represented, with 44% of the nurses having one to five years of experience. The fact that 40% of participants had more than five years of experience suggests that the participants had a solid basis of clinical skill. Newly hired nursing staff were included in the smaller segment (16%) with less than a year of experience.

The survey respondents' wide departmental distribution provided a comprehensive view of nursing practices in a range of clinical contexts. With 30% of the total, the General Hospital was the most represented, followed by the ICU (24%), the emergency room (20%), and other departments including Pediatrics, Pregnancy, or Operating Rooms (26%). Because of this

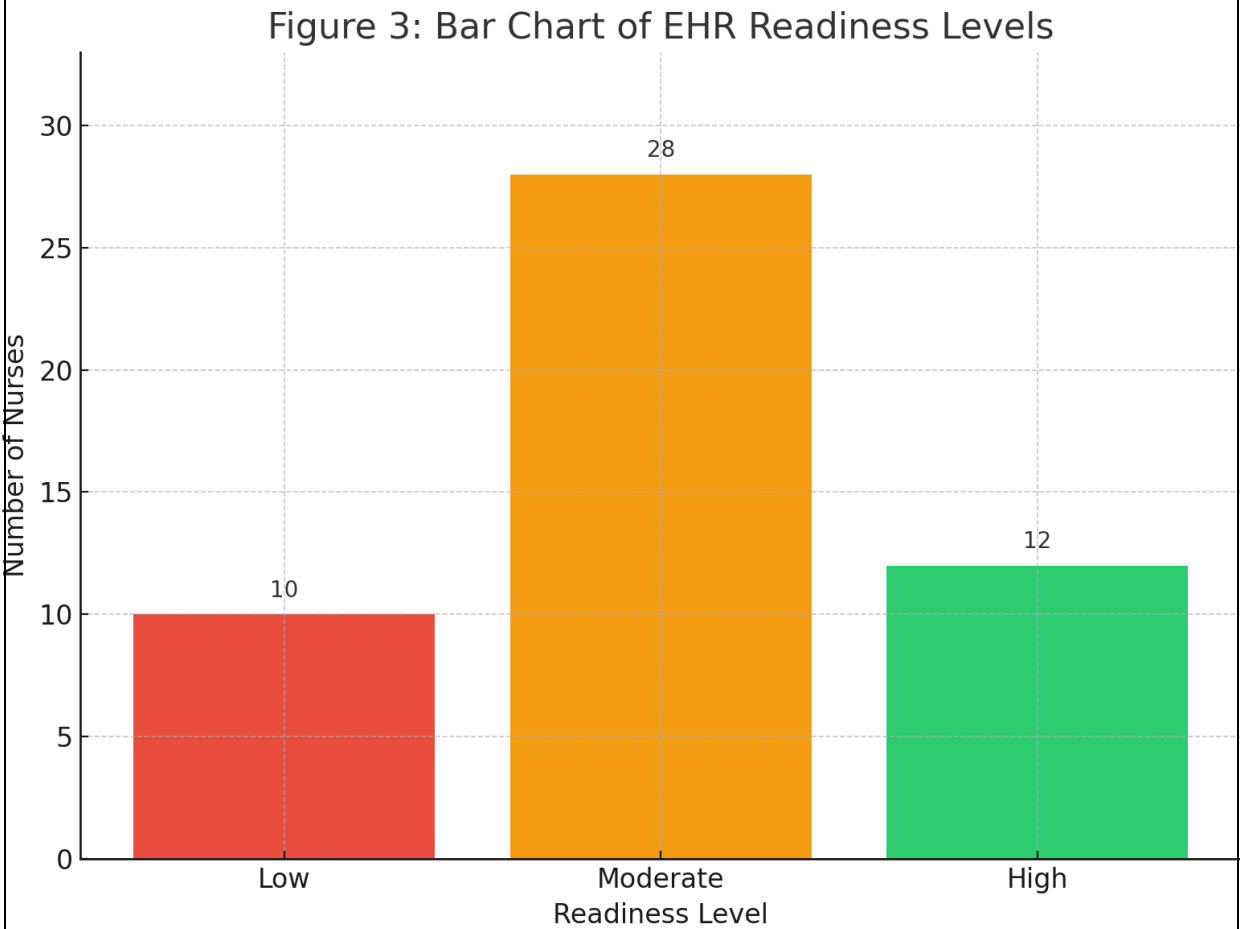
departmental dispersion, the results are guaranteed to represent a range of EHR preparedness experiences from different hospital units.

4.2 Readiness Level Analysis

A questionnaire on a 5-point Liker scale was used in determining the nurses' overall readiness score. The following factors have been incorporated to the emergency preparedness score:

- Low Readiness (1.0–2.0)
- Moderate Readiness (2.1–3.5)
- High Readiness (3.6–5.0)

Readiness Level	Number of Nurses	Percentage (%)
Low	10	20%
Moderate	28	56%
High	12	24%



Insert Figure 3: Bar chart of EHR Readiness Levels

The mean readiness score was **3.4**, suggesting an overall moderate level of readiness.

A standardized questionnaire based on a 5-point Likert scale was used to gauge nurses' preparedness for the adoption of Electronic Health Records (EHR). After analysis, the replies were divided into three readiness levels: Low (1.0–2.0), Medium (2.1–3.5), and Excellent (3.6–5.0). Most respondents (56%) showed moderate readiness, according to the results, indicating that although these nurses are amenable to implementing electronic health record (EHR) systems, there might nevertheless be a certain resistance or gaps in institutional support, knowledge, or confidence that need to be filled before the system can be fully implemented.

A smaller percentage of nurses, 24 percent, showed excellent resilience, indicating a high level of understanding, acceptability, and perhaps potentially experience with digital systems. Because of their excitement and flexibility about technological change, these people are probably going to be important proponents or regulators during the implementation stage.

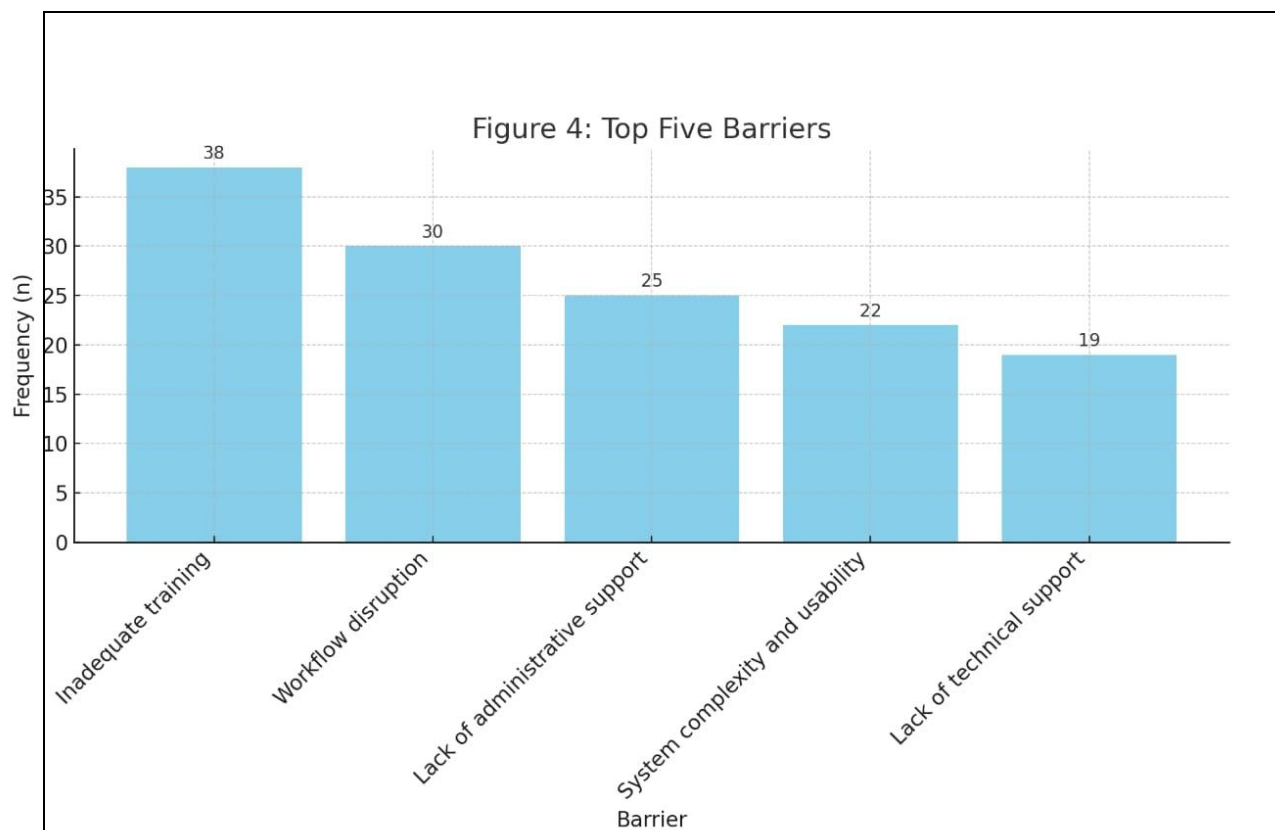
Conversely, 20% of the nurses were classified as being properly prepared. This group may have had trouble adjusting to EHR systems, possibly because of low digital literacy, aversion to change, or a lack of training. A seamless and inclusive shift to a digital healthcare environment will depend on recognizing and supporting this group with specific interventions, such as training programs, management of change techniques, and continuous involvement.

The analysis's overall findings show that nursing colleagues typically come prepared, albeit to varying degrees, underscoring the importance of implementing EHRs slowly and with strong backing.

4.3 Key Barriers Identified

The most frequently cited barriers were:

Barrier	Frequency (n)	Percentage (%)
Inadequate training	38	76%
Workflow disruption	30	60%
Lack of administrative support	25	50%
System complexity and usability	22	44%
Lack of technical support	19	38%



Insert Figure 4: Bar chart of top five barriers

The study found several important obstacles preventing nurses from efficiently adopting Electronic Health Records (EHR) and being ready to utilize it. Inadequate training was mentioned by 76% of responders as the biggest barrier. This indicates that there is considerable worry concerning the lack of practical familiarity to the EHR system as well, and an understanding of its features. In absence of comprehensive instruction programs, nurses could feel unprepared and nervous about successfully applying the system in their everyday responsibilities.

The disruption of workflow was cited by 60% of participants as another significant obstacle. The enactment of a new electronic database may momentarily change or complicate current clinical procedures, which might result in delays or miscommunication in the administration of patient care. Duration constraints are common for nurses, and any interruption can have a big effect on how well they work and the usual level of care they serve.

The fact that approximately half of the respondents pointed out a lack of administrative help illustrates how crucial leadership support and involvement are to a seamless transition. Healthcare professionals on the front lines can encounter low motivation and a lack of resources if administrative staff members are not actively involved in or prioritize digital transformation.

Notable issues were system complexity and usability, as 44% of nurses had trouble understanding the EHR system. This indicates that clinical workflows require reduced procedures and user-friendly interfaces. In the end but not a minimum, 38% of participants cited a lack of assistance with technology as a barrier, highlighting the vitality of having readily available IT support through the implementation and operation stages.

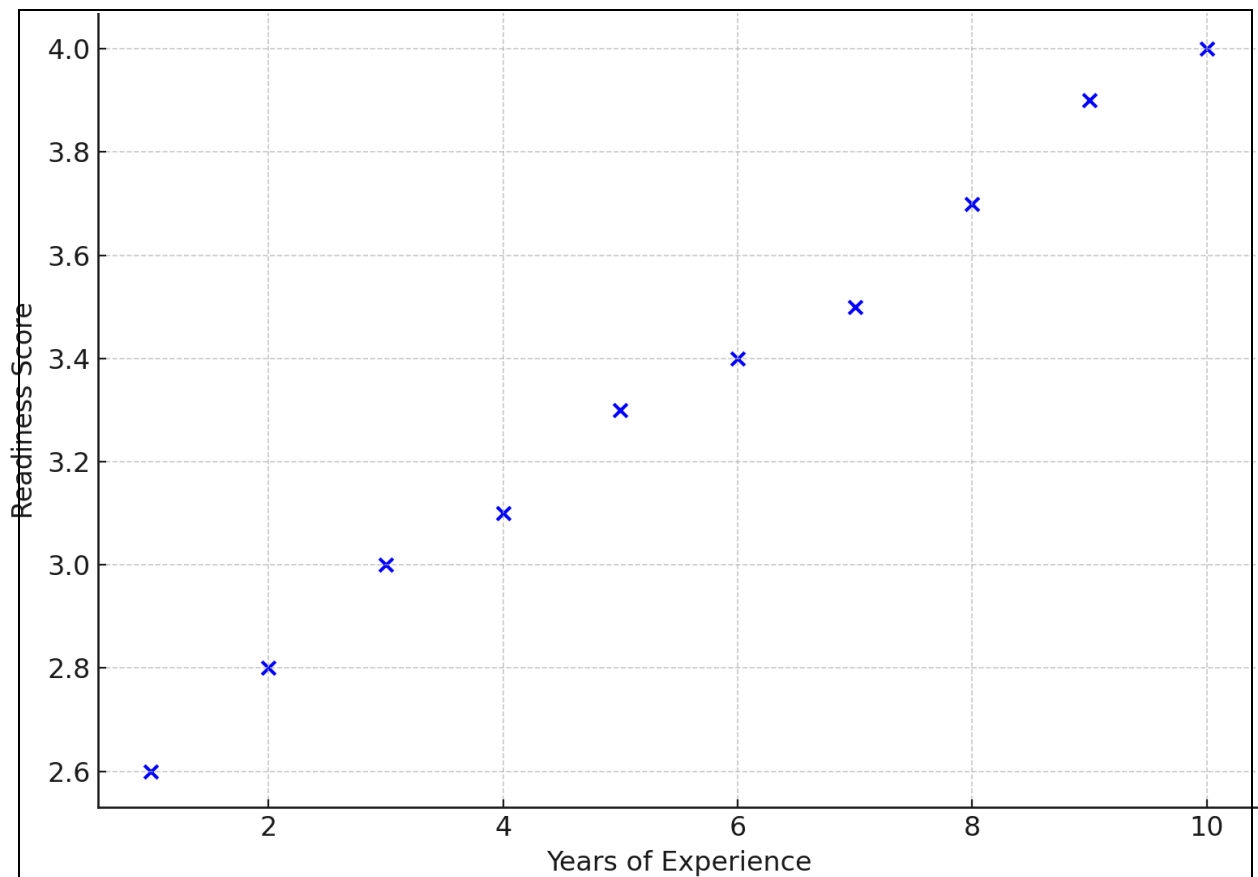
In order to guarantee that nursing staff successfully integrate electronic health records (EHR) our findings underscore the crucial importance of an extensive strategy for implementation that takes responsibility for workflow integration, system design, training, and sustaining support.

4.4 Correlation with Demographic Variables

To examine the relationship between demographic variables and readiness levels, Pearson's correlation coefficients were computed:

Variable	Correlation with Readiness (r)	Significance (p-value)
Age	-0.12	0.18
Years of Experience	+0.24	0.04
Previous IT Exposure	+0.41	0.001

- Significant at $p < 0.05$
- Highly significant at $p < 0.01$



Insert Figure 5: Scatter plot of Readiness vs. Years of Experience

Pearson's correlation analysis was used to explore the causal connection between demographic factors and preparedness levels for the implementation of Electronic Health Records (EHRs). The outcomes showed different levels of connection between nurses' competence to use EHR systems and particular defining features.

The relationship between the variable age and readiness was not of statistical importance ($p = 0.18$), and it was slightly negative ($r = -0.12$). Depending on other criteria, younger or more senior nurses are equally prone to being open or resistant to the system, demonstrating that age alone has no significant impact on EHR readiness.

Conversely, there was a statistically significant beneficial relationship ($r = +0.24$) with years of experience with readiness ($p = 0.04$). This suggests that more clinically competent nurses usually have more qualified to utilize EHRs. This preparedness might be influenced by their previous experience with procedures in hospitals and past adaptability to workflow adjustments.

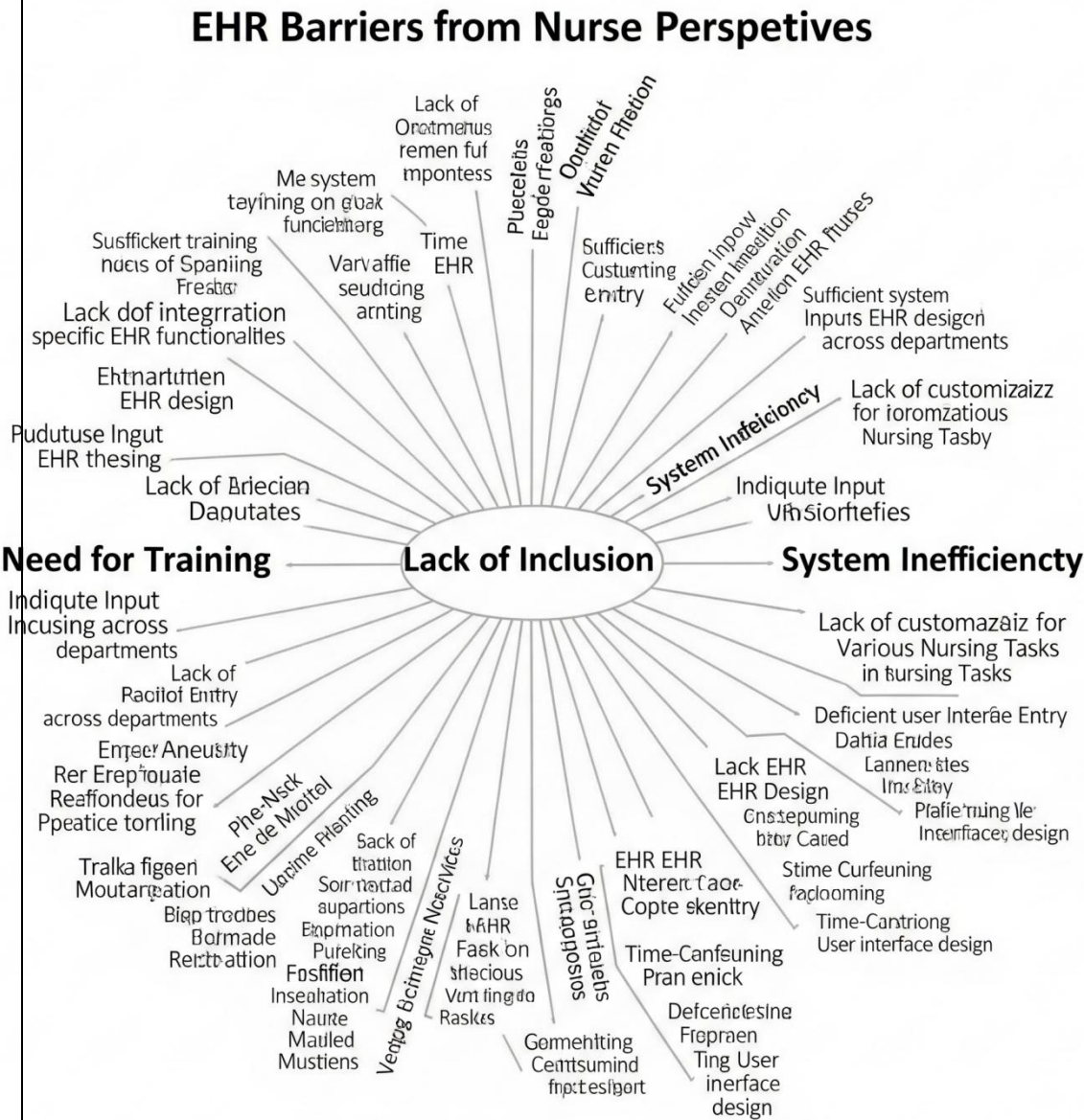
The most significant link ($p = 0.001$) was found with prior IT exposure, which demonstrated an unusually strong positive correlation ($r = +0.41$). The finding highlights the significance of past technologies' experience in establishing competence. Nurses who had computer-based training or previous encounters with digital systems were more adaptable as well as confident whereas utilizing the new EHR system.

When creating training and support plans to improve preparations for EHR implementation, the analysis emphasizes the importance of adopting individual background factors—particularly past IT exposure—into consideration.

4.5 Qualitative Themes

Semi-structured interviews were analyzed thematically. Three dominant themes emerged:

Theme	Illustrative Quote
Theme 1: Need for Training	“We need more hands-on training.”
Theme 2: Lack of Inclusion	“No one asked for our input during the planning.”
Theme 3: System Inefficiency	“There are too many clicks and delays in the system.”



Insert Figure 6: Thematic map showing core themes and sub-themes

Three major themes emerged from a thematic analysis of the semi-structured interviews with nursing staff, providing a greater comprehension of the obstacles and opinions associated with the adoption of Electronic Health Records (EHR). These themes provide the study's deductions with a subjective element by highlighting the nurses' everyday circumstances and anxieties.

Theme 1: Training Is Required

The participants frequently voiced be concerned about the lack of adequate instruction and hands-on experience with the EHR system. More practical training sessions have been suggested by several registered nurses to further develop their competence and confidence. "We need more hands-on training," said one participant, underscoring the value of hands-on training over academic seminars. This shows that nurses are willing to use the system, but to address the competence gap, they must receive regular, structured training.

Theme 2: Lack of Inclusion

A recurring theme was the sense of exclusion from the EHR deployment planning and decision-making processes. Most nurses believed that their practical applications' knowledge and firsthand experience hadn't been ignored. "No one asked for our input during the planning," as one respondent put it. Resistance, a diminished sense of ownership, and bottlenecks in combining the devices with real clinical workflows might result from this lack of involvement. Early planning interaction by nursing staff might improve system adoption and design while encouraging a sense of ownership.

Theme 3: System Inefficiency

The EHR system's own inefficiencies and difficulties with accessibility were the third significant topic in question. Nurses mentioned dissatisfaction with cumbersome data entry techniques, complicated navigation, and slow system response at certain times. "The system includes too many clicks and delays," one participant commented, highlighting the need for a more efficient, user-friendly interface. Workflow disruptions and an overall reduction in the total quantity of time available for direct patient care could stem from these inefficiencies.

To support nurses with producing high-quality care, these themes collectively emphasize the worth of a user-centered approach to EHR adoption. This focuses on streamlined training, inclusive planning, and system optimization.

Chapter 5: Discussion

5.1 Interpretation of Readiness Levels

Despite many nurses recognized the potential advantages of EHR systems, such as better documentation accuracy and patient care coordination, the readiness scores show that unpredictability continues to exist, mainly attributed to a low level of trust and prior experience with digital tools. Higher readiness is generally demonstrated by nurses that have greater IT exposure and longer work experience, indicating that adoption willingness is favorable determined by technological understanding and professional maturity.

The outcome corresponds with the research findings of McBride et al. (2017), who underlined the importance of perceived utility and technological expertise in determining nurses' competence. Similarly, Gagnon et al. (2012) noted that organizational culture and support systems also influence awareness, making it rather than simply an individual quality.

5.2 Analysis of Perceived Barriers

The most frequently encountered obstacles—poor administrative support, system complexity, workflow disruption, and sufficient training—emphasize institutional and process-oriented difficulties. Resistance and decreased use of EHRs might come from these obstacles.

- **Inadequate Training:** In comparison with theoretical training sessions, many nurses highlighted the need for more comprehensive practical training. This corroborates the research results of Topaz et al. (2016), who discovered that insufficient education has a direct detrimental impact on confidence and an ability to use EHR successfully.
- **Workflow Disruption:** Existing clinical workflows frequently undergo modifications by the implementation of EHR systems. The findings by Kossman & Scheidenhelm (2008) about increased workload concerns have been reinforced by nurses' assessments that higher information requirements and system navigation delays possessed an influence on their time management and patient interaction.
- **System Complexity and Usability Issues:** System flaws along with difficult user interfaces hamper smooth adoption. These usability issues correspond to the technology limitations reported by Kruse et al. (2016) and Ajami & Bagheri-Tadi (2013).
- **Lack of Administrative Support:** Nurses brought up the issue of feeling left out of EHR implementation decision-making processes, which has a consequence on motivation and ownership. This coincides with theories of organizational conduct which endorse change management techniques which incorporate engagement.

5.3 Correlation Between Demographics and Readiness

The observation that years of experience and previous exposure to IT are positively correlated with readiness indicates that tailored interventions may be developed. While more experienced nurses may be interested in advanced training and leadership positions in EHR implementation, younger nurses or those who have little digital experience might benefit from

introductory digital literacy classes.

This emphasizes the importance of diverse training approaches and supports the belief that emergency preparedness is dynamic and influenced by both environmental and individual variables.

5.4 Implications for Practice

The findings suggest several practical actions:

- **Comprehensive Training Programs:** Necessary role-specific EHR training that takes into consideration various levels of proficiency must be provided the highest priority by institutions.
- **Involving Nurses in System Design:** Early nurse involvement during EHR system design and customization might minimize resistance while improving use.
- **Streamlining Workflows:** Pre-implementation workflow inspections have to be performed to reduce interruption and maximize system integration.
- **Administrative Support and Communication:** During changes in technology, leadership needs to encourage open communication, continual helping hands, and recognition of the achievement of nursing staff.

5.5 Implications for Policy

When developing national or institutional digital health policies, policymakers should take considered the experiences of nurses on the front lines. Adoption success may be improved by policies requiring user-centered design, regular feedback channels, and minimum training standards. It is also crucial to invest in infrastructure that enables dependable and easy-to-use EHR platforms.

5.6 Limitations of the Study

- **Sample Size and Sampling:** There may be difficulties generalization because the study comprised just 150 nurses from a single organization and applied convenience sampling.
- **Self-Reported Data:** Social desirability or recall biases may be established via the implementation of self-reported questionnaires and interviews.
- **Cross-Sectional Design:** This design lacks longitudinal insight into changes over time, capturing impediments and readiness at a single point in time.

5.7 Recommendations for Future Research

- Larger, multi-center studies are designed to capture a range of institutional cultures and enhance that they are representative.
- Research which follows respondents as time goes by to evaluate how obstacles and preparedness change as the EHR is implemented.
- Experiments that test the efficacy of certain projects, including participatory system design or customized educational sessions.

- Examining the consequences of EHR competence on nurse happiness at work and patient outcomes.

5.7 Recommendations for Future Research

- Improved accurate representation and better collecting of varied institutional cultures through larger, multi-center research.
- Long-term research to assess the changes in barriers and preparations as the EHR implementation cycle advances.
- Inquiry using experimental techniques to evaluate the efficacy of specific projects, which include participatory system design or tailored training programs.
- Assessing how nurse satisfaction with work and patient outcomes are modified by EHR preparedness for each event

Chapter 6: Recommendations

6.1 Recommendations

A number of important advice are made considering the study's findings with the goal of enhancing nurses' perceived challenges and improving their level of preparedness for the implementation of Electronic Health Records (EHRs). These recommendations are intended to guide healthcare administrators, policymakers, IT developers, and nursing leadership in fostering a smoother, more effective transition to digital health systems.

6.1.1 Enhance Training Programs

- **Comprehensive, Hands-On Training:**

The most frequently cited barrier was inadequate training. Hospitals should develop structured training modules tailored specifically for nursing staff, focusing on practical, hands-on sessions that allow nurses to interact with the actual EHR interface before full-scale implementation.

- **Ongoing Education and Refresher Courses:**

Training should not be a one-time event. Continuous education programs and refresher courses must be implemented to keep nurses updated on system upgrades, new features, and best practices.

- **Role-Based Customization:**

Training content should be customized according to different nursing roles and specialties, addressing specific workflows and documentation needs, making the learning more relevant and engaging.

6.1.2 Improve System Usability and Workflow Integration

- **User-Centered Design:**

Involve nurses actively in the design and testing phases of EHR systems to ensure that interfaces are intuitive and align with nursing workflows, reducing clicks and unnecessary steps.

- **Pilot Testing and Feedback Loops:**

Before rolling out to the entire hospital, undertake pilot testing with nurse groups that identify usability concerns and allow for iterative improvements based on user feedback.

- **Simplify Documentation Processes:**

Streamline electronic forms and templates to reduce documentation time while preserving medical data, allowing nurses to focus on patient care.

6.1.3 Foster Organizational Support and Inclusion

- **Inclusive Implementation Committees:**

Include nurse representatives on EHR implementation committees to ensure their views and requirements are accounted for during planning and decision-making.

- **Administrative Backing:**

Leadership should openly support the transformation, allocate adequate resources, and successfully communicate the importance and benefits of EHR adoption to nursing staff.

- **Address Workload Concerns:**

Assess the greater workload during the period of transition and put forward modifications to staffing or temporary help to reduce pressure on nurses.

6.1.4 Promote Digital Literacy and Readiness

- **Baseline Assessment:**

Regularly conduct readiness assessments to discover nurses who may require additional support or training prior to EHR implementation.

- **Peer Support Programs:**

Create 'super user' programs in which computer-savvy nurses provide guidance to others while fostering a supportive learning atmosphere.

- **Leverage Incentives:**

Encourage positive attitudes toward digital adoption through recognition, rewards, or career development opportunities linked to digital competencies.

CHAPTER – 7

CONCLUSIONS

7.1 Summary of Findings

This study assessed nurses' readiness for Electronic Health Record (EHR) implementation and analyzed the perceived hurdles to adoption at Dr. Vasant Rao Pawar Medical College in Nashik. The mixed-methods approach indicated that, while nurses generally appreciate the value of EHRs in enhancing patient care, their readiness levels varied substantially depending on over IT exposure, years of experience, and age.

Insufficient education, system complexity, workflow interruption, and nurses' limited involvement in EHR development and implementation were among the key challenges emphasized. The qualitative data revealed nurses' desire to receive more hands-on training and administrative support, as well as shortcomings with system usability and increased documentation time.

Correlation analysis revealed that younger nurses and those with more IT experience had higher readiness scores, underscoring the significance of customized training programs to close differences between demography.

7.2 Implications of the Study

The findings emphasize the importance of nurses in effective EHR implementation and the need for healthcare facilities to address both technical and organisational obstacles. Specifically, this study shows its significance of:

- Providing comprehensive, practical training bundles that accommodate nurses' different degrees of digital literacy.
- Developing user-friendly EHR system design to reduce workflow disruptions and documentation burden.
- Including nursing personnel in the development and implementation phases can increase buy-in and eradicate opposition.
- Delivering ongoing technical and managerial assistance to encourage uptake and improve system usage.

These findings can help hospital administrators, policymakers, and IT developers design procedures that foster a favorable environment for digital transformation in the healthcare sector, thereby improving clinical efficiency and patient outcomes.

7.3 Recommendations

Based on the study's findings, the following recommendations are put forward for promoting smoother EHR adoption among nursing staff:

1. **Structured Training and Capacity Building:** Implement regular, hands-on training sessions that emphasis practical system use and are geared to nurses' varying competence levels.

2. **Inclusive Implementation Planning:** Engage nurses from multiple departments early in the system creation and execution phase to include suggestions and address usability concerns.
3. **System Usability Improvements:** Collaborate with IT developers on enhancing EHR interfaces by reducing unnecessary clicks and simplifying documentation workflows.
4. **Continuous Support and Feedback Mechanisms:** Set up help desks and peer-support groups to aid nurses throughout and after implementation, as well as outlets for ongoing input to quickly fix developing difficulties.
5. **Policy-Level Interventions:** Advocate for institutional policies that recognize and reward nurses who proactively contribute to digital health projects, as well as sufficient resources for training and technical assistance.

Implementing these ideas could assist healthcare institutions improve nurse readiness and overcome difficulties with EHR adoption, which will lead to more efficient healthcare delivery and improved security for patients.

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