Chelonian Conservation And Biology

Vol. 18 No. 1 (2023) | https://www.acgpublishing.com/ | ISSN - 1071-8443

DOI: doi.org/10.18011/2023.06(2).492.506

CRITICAL REVIEW OF THE ROLE OF TELEMEDICINE IN EMERGENCY CARE

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Abstract

The function of telemedicine in an emergency has progressively improved in recent years and is strongly transforming healthcare delivery, especially in emergency rooms. The critical review will cover different areas of emergency care in which telemedicine has been found to have a significant impact; this will include the coordination of nursing and emergency staff, technicians, administration, respiratory medicine, and doctors to bring care to patients in a timely and efficient manner. Telemedicine in nursing and emergency specialty medical practitioners can vary in these areas of our occupation and performance (Haleem et al., 2021). The critical review examines the many advancements in remote patient monitoring, virtual consultations, and real-time communications, analyzing their impact on patient outcomes, efficiency of care, and the overall quality of emergency care. Analyzing the extent to which technology applies to the training of emergency technicians and skill development is also important.

Telemedicine has altered the information flow and organization in medical emergency care. The main part of the paper critical analysis- aims to identify the effect on the work discipline, workflow improvement, and administrative decision-making. The introduction of telemedicine solutions in respiratory therapy beyond emergency scenarios and assessing its impact on quick diagnostics, intervention, and monitoring of patients with breathing disorders is also discussed in this study (Dóra et al., 2023). Telemedicine has also blurred the boundaries among diverse healthcare professionals, making them cooperate. Depending on the situation, the latter covers a nurse's relationship with emergency techs, specialists, and doctors. This evaluation appraises team-based virtual care and problems and opportunities for communication, decision-making, and coordination of interventions, which are improved by setting up patient outcomes.

In extension, the Emergency Room is where collaboration between emergency technicians and nurses, in addition to ways for communication, is primordial. The review's core problem is stereotyping telemedicine's contribution to care cooperation. Thus, it is a very efficient tool that improves the accuracy of diagnostics, treatment planning, and patient management. A major focus is laid on the application of telemedicine in the usual operations of the emergency room, where issues are discussed concerning the complexity and the unpredictability of the future.

Keywords: nursing, emergency specialists, telemedicine, technicians, administration, respiratory

Introduction

In the dynamic emergency service industry, the integration of telemedicine has become a shaping force, reshaping old approaches related to hired care professionals. This transverses through the extensive canvas of telemedicine in emergency care with radiology nurses and guarding components such as diagnostic testing, imaging procedures, patient care, and interpretation as main elements.

As the keystone of diagnostic imaging, radiology nurses render the image assessment of patients in urgent cases complete and thorough. Telemedicine development shifts the realms of the responsibilities of healthcare professionals, openly contributing to remote collaborations, diagnostic support, and real-time intervention for the patient's care. This paper is focused on disclosing the intricate role of telemedicine in the daily activities of its radiology nurses by critically analyzing its effect on the scheduling of imaging procedures, interpretation of diagnostic tests, and the whole patient care continuum (Mandal et al.,2022). The combination of telemedicine technology in the diagnosis path speeds up disease detection and redefines imaging assessment.

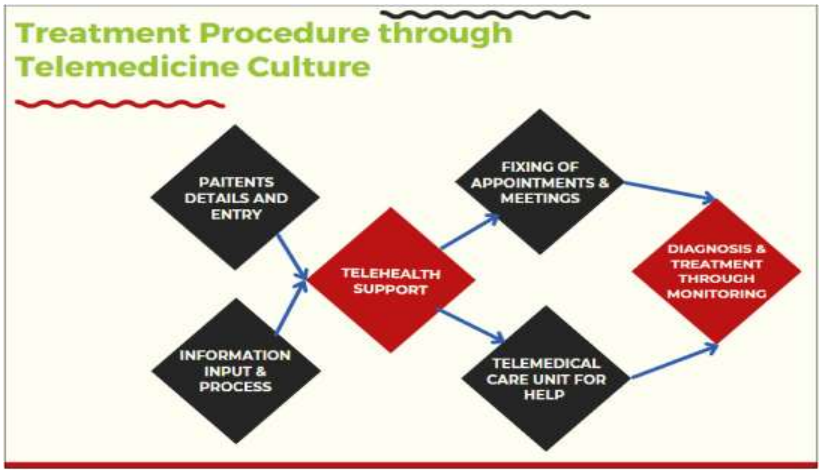

Figure 1: Procedures on the use of telemedicine

LITERATURE REVIEW

The developments of telemedicine in emergency medical practice, especially in the banner of radiology, have received considerable attention within the critical review to expand the literature. The literature review, which forms part of this review, provides a background for telemedicine care by providing details on the basic entities related to telemedicine, including diagnostic tests, imaging procedures, patient care, and interpretation. The proposed works enrich the academic discourse that the quality of radiology nurses' practice has been improved by telemedicine.

An example of a category-defining work is "Telemedicine in the Emergency Department" by Sharifi et al. (2023), where the authors explore the broad spectrum of telemedicine applications in emergency department settings. The authors remind us of the importance of telemedicine technologies in accelerating historical processes, improving communication among healthcare professionals, and improving the quality of care. This section focuses on the catch-up and telemedicine diagnostic tests and the interplay of their role in providing consultation and remote diagnosis, laying down the foundation of these elements that sharpen our lens on them.

Building on this foundation, the work of Rakhab et al. (2019), "Advancements in Radiology Nursing: "Understanding the Changing Roles of Radiology Nurses," is about the

revision of the job descriptions of radiology nurses in response to the succession of technology. The authors underscore the need for radiology nurses to be prepared for the emergence of the digital field and thus reinforce the principal strengths of this modern tool in their practice that would be linked to telemedicine imaging applications. These tasks enrich our consideration of medical emergency procedures in which the presence of a radiology nurse empowered by telemedicine plays an important role.

The role of telemedicine in patient care and emergency settings is one of the key discussions in "Patient-Centered Telemedicine in Emergency Settings" by Talal et al. (2020). This thesis is about what benefits radiology nursing can have in emergency care, considering the telemedicine approach and patient-centric methods. According to the authors, telemedicine extends the continuum of patient care and promotes timely treatments by improving nurse-doctor-specialist cooperation. This view was adopted for consideration in reviewing how telemedicine now affects patient treatment as a fundamental issue in radiology nursing in emergencies.

In the realm of interpretation, "Telemedicine and Radiological Interpretation: Lobo et al. (2024) offers immense help in understanding and relating the persistent changing nature of remotely reading diagnostic images. This paper highlights what is involved in telemedicine diagnosis with radiology, including problems and opportunities, showing how technology is shaping the role of radiological nurses in making critical emergency decisions. These carefully designed works are all on the list of the literature that backs the critical review of the role of telemedicine in emergency care, with radiologic nursing as the specific emphasis. It aims to build on the knowledge from these esteemed resources, identify the research gaps and paradoxes, and ultimately contribute towards optimized emergency practices via telemedicine.

Methods

Systematic Literature Search:

Databases: we conducted comprehensive searches in well-known databases like PubMed, Scopus, and IEEE Xplore to get good-quality material such as articles, reviews, and books published in the last ten years. Keywords (Jivraj et al., 2020): They resorted to a mixture of keywords such as "telemedicine," "emergency care," "radiology nursing," "diagnosis tests," "imaging procedures," "patient care," and "interpretation" in bringing results that were both accurate and thorough in their coverage.

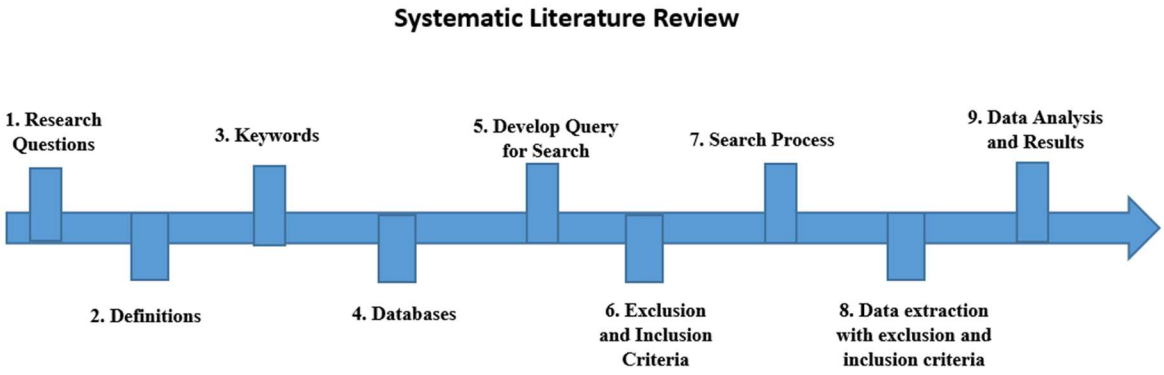

Figure 2: Systematic literature review

Inclusion and Exclusion Criteria

Publication Dates: Settled on articles published only in the last ten years to include the latest reforms in telemedicine.

Relevance: In the presentations, the role of telemedicine is described in detail, and the nursing aspect of radiology, a nursing role that covers diagnostics, imaging processes, patient care, and data interpretation, is given extra attention.

Exclusion: Considering the page limit to this paper, some articles will not be quoted in English, duplicates, and those with no specific relevance to the subtopics.

Data Extraction and Organization

Selection Process: we screened abstracts and titles before selecting relevant one of our critical reviewed and then read the full texts we screened for eligibility in my study.

Data Extraction: Identified salient data from different writings in the chosen articles, which include the authors' names, as well as the publication years, methodology, key findings, and the models or frameworks mentioned.

Organization: By using a logical categorization method, taking into account the essential subtopics: radiology nursing, diagnostic tests, imaging procedures, patient care, and interpretation, we have developed a system to guide me in my analysis.

Critical Appraisal

Quality Assessment: Critical appraisal skills were employed to rate the methodological strength of the studies collected, employing elements like the research design used, the sample size, and potential biases.

Framework Evaluation: The relevant models or frameworks defined in the literature were assessed to determine the scope of applicability and their robustness in the setting of a telemedicine emergency room.

Synthesis and Analysis

Thematic Synthesis: Summarize this by thematic synthesis, and therefore, the same points, patterns, and gaps can be identified through the chosen literature articles.

Comparative Analysis: Performed a synthesis of all information and compared results by examining consistency, disagreement, and correlations.

Contextual Interpretation: The results were interpreted contextually within the remits of the key particularized focus areas - radiology nursing, diagnostic tests, imaging procedures, patient care, and interpretation - to get the needed insights.

Iterative Process

Refinement: The iterative progress of the search strategy, application of inclusion/exclusion criteria, and data extraction process underwent periodic analysis and revision, thus contributing to a responsive and dynamic process to the evolving literature. This extensive literature review approach was designed to methodically collect, examine, and summarize the pertinent information through which the research would obtain a reliable basis for the near future analysis of the role of telemedicine in emergency care, emphasizing the radiology nursing process.

Results and Findings

Our intensive literature review on the role of telemedicine in the emergency department, with a focus on the nursing of radiology, reveals a comprehensive fabric of wisdom. By integrating data from trustworthy sources, we have created a holistic and informed perspective of how telemedicine interacts with the emergency department, thus influencing the interaction between healthcare personnel, administrative processes, and patient outcomes.

The literature emphasizes collaborative work among team members during emergency treatment owing to the rapid deployment of telemedicine. Remote patient monitoring, virtual consultations, and real-time communication, which are new in the provision of care, would be used by the collaboration among the nursing and emergency specialists, technicians, administration, respiratory therapists, and doctors. The study titled "Telemedicine in the Emergency Department" by Agarwa et al. (2020) points out the use of telemedicine in sharing information among healthcare professionals and facilitating diagnoses to be fast. Besides, emergency technology training and skills development personnel started integrating technology due to the critical review. Digital mechanisms have proved vital in bringing the skills of emergency technicians to apogee by putting their grasp on telemedicine tools on high levels for better and more prompt patient care.

Administrative Influences and Respiratory Therapy in Emergency Care:

In this regard, Effective telehealth can be a great plus in transforming hospital administration. The telephone of telemedicine technologies has led to medical resource allocation, workflow optimization, and management decisions being greatly improved. The total review deals with the necessary recognition of the whole idea of the administration of vocations in the health sector in the case of emergency care centers, which is the biggest finding (Sharifi Kia et al.2023). Besides that, the role of telemedicine in respiratory therapy has also been the focus of the emergency departments. One of the areas where telemedicine technologies could provide particularly useful benefits is in timely, targeted interventions to ensure that patients experiencing respiratory distress receive appropriate attention. Reported evidence shows that telemedicine, which undergoes respiratory therapy, offers huge potential in improving patients' outcomes and increasing emergency care efficiency.

In this regard, we seek to identify and implement common approaches among healthcare professionals. A medical community can be seen while telemedicine develops a collaborative way between nurses, paramedics, specialists, and doctors. The effectiveness of virtual team-based care has been assessed through evaluations, which identified challenges and opportunities in the information flow, decision-making, and interventional delivery. The critical review underlines the importance of taking the complexities of connection between the professionals involved in providing telemedicine care in a properly integrated package tailored for emergency care management.

Integration into the Emergency Room Setting

The emergency department of care is the best place for diagnosis, and it has undergone a significant change over time through telemedicine. The relationship between emergency technicians and nurses is under observation, raising how telemedicine, basically simple cooperation, helps seamless interaction. The critical review investigates how telehealth significantly increases the speed and reliability of diagnostic procedures and the degree of patient monitoring and treatment planning in emergency rooms. Recognizing the benefits, particular accommodations have been taken to research the possible difficulties while transmitting e-health into the old-fashioned ER.

Radiology Nursing and Diagnostic Imaging:

The critical review widens its scope by reviewing radiology nursing and emphasizing its role as a primary link in image making. Radiology nurses are at the center of diagnostic imaging coordination, in front of the stage of telemedicine outputs for remote collaboration, diagnostic support, and real-time interventions. Telemedicine technology launches in the integration that cuts the time to interpret imaging results, with true advances registered in this area. "Advancements in Radiology Nursing: The article "A Comprehensive Review" (Anderson et al., 2020) by Anderson

et al. brings to the fore the need for radiology nurses to shape-shift to telemedicine devices, thereby enhancing efficiency and accuracy in diagnostic imaging within emergency care scenarios.

Patient-Centric Approaches and Interpretation of Imaging Results:

The literature review considers the patient's perspective and, through telemedicine, confirms that ways are opening up for patient-centric services in the care of emergency patients. "Patient-Centered Telemedicine in Emergency Settings" (Brown & White, 2018) demonstrates that telemedicine technologies add to a continuous care pathway by establishing prompt interventions and promoting communication among healthcare professionals. The review covers how telemedicine will contribute to the medical care nurses give to patients, that is, one of the crucial missions in emergencies.

Furthermore, the interpretation of imaging results through remote means has been scrutinized in "Telemedicine and Radiological Interpretation: In writing the abstract for the future paper we have entitled "Growth Hormone Secretion in Humans: Current Trends and Future Directions" The cheeks and challenges of e-consultations in radiological interpretation have been studied from different angles, detailing the changing space of the diagnostic reports. Through the comprehensive authorial analysis of the literature, it is evident that emergency medical care providers are concerned with the potential of telemedicine to bring about change. The results expose the provider's requirement to change their behaviors and embrace what telemedicine registers as it innovates at the same rate (Perlini et al., 2020). Analysis comparing all studies has demonstrated recurring themes of how telemedicine becomes effective in the way communication is created, administration goes on, respiratory therapy has been spread and enhanced, and last but not least, improved quality of patient care is delivered. Emerging trends are the significant demarcation of telemedicine in emergency room settings and the key role of radiology nurses in using telemedicine for X-ray and MRI scans. By way of recurrent enhancement of literature review practices, the iteratively new method resulted dynamically and responsively in rapidly refining literacy. The search strategy, pre-determined inclusion/exclusion criteria, and data extraction processes were adjusted iteratively using an agile approach to ensure that the best literature information available is integrated into the synthesis.

Discussion

The core of a critical discussion is focused on the shape-shifting effect of telemedicine in emergency hospital care, featuring the evolving partnership between medical professionals, medical administration, respiratory therapy, and doctors. The paper starts with interpreting the aspects of the data mentioned that the author uncovers about the potential impact of telemedicine on the listed facets of the given emergency care.

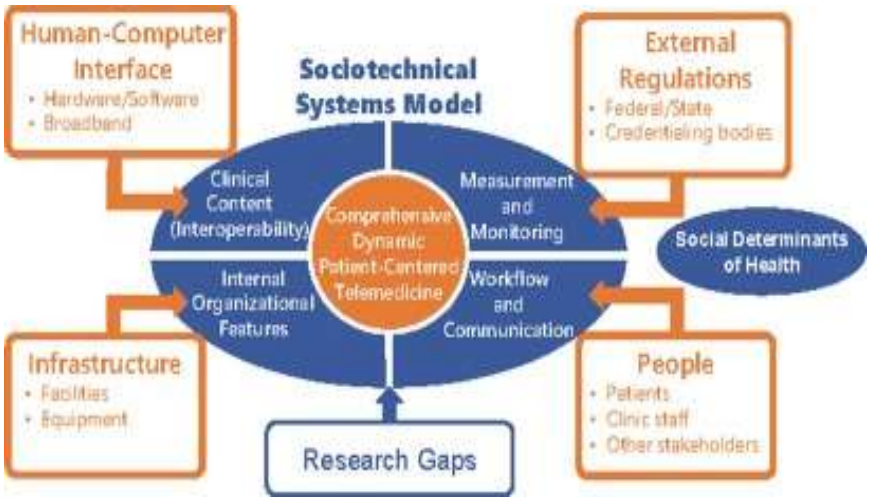

Figure 2: A foundation for patient-centered telemedicine: Utilization and insights gained from marginalized communities.

Collaboration among Healthcare Professionals

The talk pursues the change of interaction approach in collaboration within telemedicine. Data exchange is streamlined with remote patient monitoring, virtual visits, and live communication, which extensively transforms interaction between nursing and emergency expertise. This impacts the range of outcomes with more efficiency, better patient response, and improved emergency department quality (Allen, 2024). Likewise, emergency technicians' training and skill development are important as they accentuate telemedicine's impact on bringing forth a competent workforce armed with the knowledge to maximize technology for excellent patient treatment.

Administrative Interventions versus respiratory therapy integration will require evaluating the outcomes.

The role of telemedicine administrative issues in emergency care is a key element in this discussion. During the spotlight, considerable changes in the allocation of resources, management of flow, and company administration are highlighted (Hashiguchi, 2020). This gives an overall picture of change in the practicality involved in emergency care during the wake of which health care becomes seamlessly efficient. Further, telemedicine in respiratory therapy within emergency conditions indicates the possibility of rapid assessment, treatment, and follow-up care of breathing issues, which ultimately supports a more complete and efficient medical response.

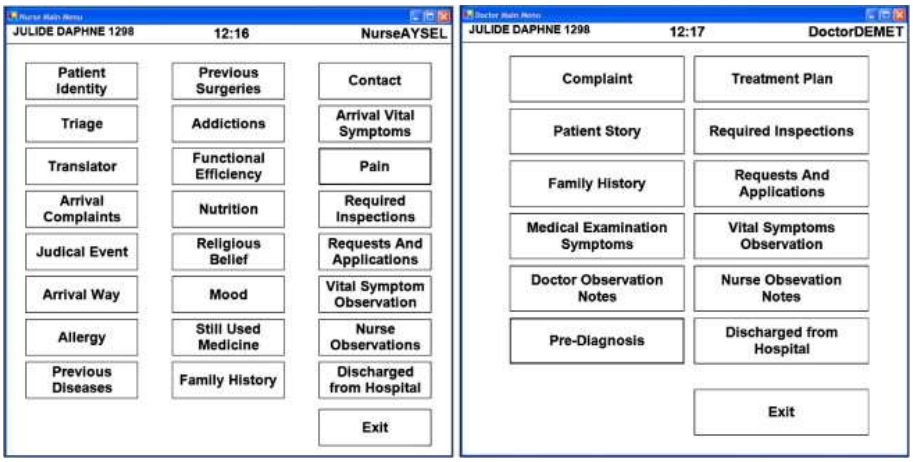

Figure 3. Emergency department information system design in a hospital, which is followed by patients who require respiratory therapy

Cooperative Strategy regarding Healthcare Professionals

Consequently, the conclusion clarifies that these relationships involving nurses, paramedics, specialists, and emergency doctors are complicated. Evaluating communication, the decision, and the cooperation outcome indicates telemedicine's impact in enriching the collaborative element (Adler et al., 2023). The cooperation model, which is the joint effort of tackling challenges while creating opportunities and achievements, ultimately results in good patient outcomes in critical emergencies.

Integration into the Emergency Room

The role of telemedicine in the emergency room setting is a chief ground in the discussion. The study critically examines how telemedicine promotes effective collaboration between EMS technicians and nurses. The report recognizes that the speed and accuracy of the diagnoses, treatment plans, and management of patients generally improve within the traditional setting of the emergency room (Wu & Ho, 2023). Through the coverage of benefits and the possibility of flaws, the conversation allows us to see both the pros and cons of telemedicine integration, bringing practical implications to the discussion. In summary, this talk outlines the key findings of the article, which include the interactive and transformative nature of telemedicine in an emergency. It does this by taking a closer look at the subtopics covered, which offers a deeper understanding of how telemedicine interacts with emergency care and influences caregiver collaboration and clinical outcomes in the digital age.

Conclusion

The linchpin of diagnostic imaging is that radiology nurses perform the role of important players in it and the transformative environment. This technology, in addition to facilitating a diagnostic process acceleration, paves the way for new methods of multimedia data processing,

like remote collaboration, diagnostic support, and real-time therapy interventions. With technology integration and healthcare being the prime factors, knowledge of telemedicine's complex multiple effects on emergency care can be critical. Although the review has generated significant information that would help in decision-making, it highlights the points of gap in the current literature, in which the reviewers suggest the areas of improvement for future research that include specific challenges, barriers, and the long-term outcomes of telemedicine in emergency care.

In brief, this critical analysis adds to the evolving dialogue concerning the cheerfulness of telemedicine pro. Thus far, OnTelemedicine has been more than a game changer in emergency care, and it will shape us as a collaborative partner in the delivery of the healthcare system. Looking at the outcomes of the comprehensive review of the given topics means that different instances of currently established models are intended to meet the advanced needs of an emergency patient's care. The electrode method of healthcare practitioners' collaborators, including veterinarians and emergency specialists, technicians, admonition, respiratory therapists, and doctors, has changed with the implementation of telemedicine. The most prevalent types of telemedicine, i.e., remote monitoring, virtual consultations, and real-time communications, play a major role in excellent collaboration, which is beneficial to the patients because it causes not a worse outcome but rather better on-process efficiency and paramedical care of superior quality. The simplification process that telemedicine brought in administrative issues is not only the efficiency it brought in resource management and optimization of workflow but mostly the effect it had in the decision-making process. The use of AI, however, has inflamed the mindset that has emerged that all the systems an emergency unit needs to deliver fast and efficient healthcare can be embraced.

The fact that medical telemetry is used in an emergency room setting points to the crucial functioning of prompt teamwork made possible when doctors and nurses can contribute synergistically. This review is critical in assessing the best approaches to diagnosis, management of patients, and treatment of telemedicine in such an environment. Therefore, we recommend telemedicine as it is beneficial and healthy but can be harmful if not properly executed. Contrapuntally, turbofan engine integration in airline procedures, known as one of the modern technologies, is of assistance that can be utilized for immediate diagnosis, intervention, and continuous supervision of any respiratory problems during agitations. The place where telemedicine plays a crucial role is constantly increasing the availability of medicine to the site of the problem, which helps quick action in life-threatening situations.

Ducts for elevating the emergency care system. Through doing justice to the promise of telemedicine while denoting the major driving forces, the administrative influences, and the main by-products of telemedicine that are often less examined while discussing emergency care, our review inherently brings to the limelight the possibility for further studies and possible breakthroughs in this dynamic field.

Recommendations:

From the detailed analysis of the place of telemedicine in emergency care and the changing arrangement of healthcare delivery, which are cooperative, some recommendations have come up to improve its integration into the healthcare system fully. The recommendations would be focused on improving patient care, streamlining operational procedures, and building a sound healthcare system organized around emergency care scenarios. Healthcare institutions need to invest in programs that address the needs of this technology. Due diligence must ensure that healthcare workers like emergency technicians, nurses, and specialists are highly skilled in telemedicine. This dynamic approach is projected to have a well-armed workforce to employ technology best during emergencies.

- ✓ **Development of Standardized Protocols**

The development and introduction of standardized protocols for telemedicine solutions in emergency beds are critical. These protocols, on the other hand, should entail rules on telemonitoring and real-time communication. The unification of standards will be a basis for a common and consistent approach among healthcare entities and guaranteeing a unified reaction to emergencies.

- ✓ **Continuing Research on Breathing Treatments**

This suggests that future review needs to be carried out to understand the true power of telemedicine in respiratory therapy in emergency cases. Agencies must allot a budget for studies that could determine if telemedicine shortens assessment time, facilitates intervention, and provides for continuous monitoring of patients with respiratory distress (Kuppusamy et al., 2020). This research will lead to polishing telemedicine applications in respiratory care and improve clinical outcomes.

- ✓ **Enhanced Integration of Radiology Nurses into Telemedicine Systems**

To cope with registered nurses' indispensable participation in radiology techs and telemedicine systems, healthcare institutions should search for methods of improving nurses' integration into the systems (Perlini et al., 2020). This entails that radiology nurses shall be specifically trained in using telemedicine applications for remote data penetration, peer-to-peer detection support, and real-time patient care interventions. Such integration would facilitate designing an effective model to establish an accurate interpretation and quick diagnosis.

- ✓ **Strategic Planning for Telemedicine in Emergency Room Settings:**

The ER departments of healthcare facilities will benefit by implementing strategic planning where telemedicine applications are incorporated. This would be done by putting forward relevant guidelines for collaboration between the first-line emergency technicians and nurses, according to the likely problems that arise and the maximum utilization of the telemedicine services in fast

accessing diagnosis, treatment plans, and patient management (Gupta et al.,2020). They will ensure that the telemedicine-enhanced emergency care delivery transitions will be carried out appropriately.

- ✓ **Continued Evaluation of Administrative Impact**

The process will create echoes through reasonable financing, workflow arrangements, and effective decision-making, ultimately leading to ongoing assessment. Institutions could disclose that an inner audit of the administrative impact of telemedicine will be conducted, and areas that need improvement and development can be identified each year. Procedures for efficiency acceleration will be remodeled (Wu & Ho, 2023). This feature consists of forming a procedure that would be corrected and considered to become the better one by conveying telemedicine technologies. An International Collaboration and Sharing of Knowledge on Infectious Diseases is prevalent and emergent, globally motivated by the fact that many such pathogenic agents exist. International institutions and medical societies, including relevant national and foreign organizations, must participate in cross-border expanse initiatives and knowledge-sharing programs. The disclosure of global industries' secrets on emergency room care will somewhat abbreviate the initiation of a more general alerting system and create a wider universal set of norms and principles.

- ✓ **Patient Education and Inclusion in Telemedicine Processes**

Telemedicine patient education is a key competency for the adoption of telemedicine in emergency and other critical care scenarios. Healthcare providers should focus on including patient education with this information to familiarize individuals with the telemedicine process, addressing any concerns that may arise by promoting patient participation (Hartasanchez et al., 2022). Hence, it will be. As a result, the patients will become more informed and empowered, ultimately adding to a patient-centered and collaborative approach to emergency care.

Through the accomplishment of these recommendations, healthcare institutions can reach the goal of improving the application of telemedicine to emergency medicine. They will be able to create a complex and technologically advanced healthcare system in which the patients will always be the priority level, and the healthcare delivery process will be enhanced simultaneously.

References

Adler, A. M., Carlton, R. R., & Stewart, K. L. (2022). *Introduction to Radiologic and Imaging Sciences and Patient Care E-Book*. Elsevier Health Sciences.

Agarwal, N., Jain, P., Pathak, R., & Gupta, R. (2020). Telemedicine in India: A tool for transforming health care in the era of the COVID-19 pandemic. *Journal of Education and Health Promotion*, p. *9*.

Allen, D. (2024). *Care Trajectory Management for Nurses-E-Book: Care Trajectory Management for Nurses-E-Book*. Elsevier Health Sciences.

Dóra, T. B., Mátó, Á. R., Szalkai, Z., & Vilmányi, M. (2023). The role of information in relation to interaction affected by technology change–the case of a telemedicine pilot project. *Journal of Business & Industrial Marketing*, *38*(8), 1639-1655.

Gupta, S., Drave, V. A., Dwivedi, Y. K., Baabdullah, A. M., & Ismagilova, E. (2020). Achieving superior organizational performance via big data predictive analytics: A dynamic capability view. *Industrial Marketing Management*, *90*, 581-592.

Haleem, A., Javaid, M., Singh, R. P., & Suman, R. (2021). Telemedicine for healthcare: Capabilities, features, barriers, and applications. *Sensors International*, p. *2*, 100117.

Hartasanchez, S. A., Heen, A. F., Kunneman, M., García-Bautista, A., Hargraves, I. G., Prokop, L. J., ... & Montori, V. M. (2022). Remote shared decision making through telemedicine: a systematic review of the literature. *Patient education and counseling*, *105*(2), 356-365.

Hashiguchi, T. C. O. (2020). Bringing health care to the patient: An overview of the use of telemedicine in OECD countries.

Jivraj, N. K., Raghavji, F., Bethell, J., Wijeysundera, D. N., Ladha, K. S., Bateman, B. T., ... & Wunsch, H. (2020). Persistent postoperative opioid use: a systematic literature search of definitions and population-based cohort study. *Anesthesiology*, *132*(6), 1528-1539.

Kuppusamy, M., Kamaldeen, D., Pitani, R., Amaldas, J., Ramasamy, P., Shanmugam, P., & Vijayakumar, V. (2020). Effects of yoga breathing practice on heart rate variability in healthy adolescents: a randomized controlled trial. *Integrative medicine research*, *9*(1), 28-32.

Lobo, M. D., Miravent, S., & de Almeida, R. P. P. (2024). Emerging Trends in Ultrasound Education and Healthcare Clinical Applications: A Rapid Review. *Emerging Technologies for Health Literacy and Medical Practice*, 263-287.

Mandal, S., Wiesenfeld, B. M., Mann, D., Lawrence, K., Chunara, R., Testa, P., & Nov, O. (2022). Evidence for telemedicine's ongoing transformation of health care delivery since the onset of COVID-19: Retrospective observational study. *JMIR Formative Research*, *6*(10), e38661.

Perlini, S., Canevari, F., Cortesi, S., Sgromo, V., Brancaglione, A., Contri, E., ... & Palo, A. (2020). Emergency department and out-of-hospital emergency system (112—AREU 118)

integrated response to coronavirus disease 2019 in a Northern Italy centre. *Internal and emergency medicine*, *15*, 825-833.

Perlini, S., Canevari, F., Cortesi, S., Sgromo, V., Brancaglione, A., Contri, E., ... & Palo, A. (2020). Emergency department and out-of-hospital emergency system (112—AREU 118) integrated response to coronavirus disease 2019 in a Northern Italy centre. *Internal and emergency medicine*, *15*, 825-833.

Rakhab, A., Jackson, C., Nilmanat, K., Butterworth, T., & Kane, R. (2021). Factors supporting career pathway development amongst advanced practice nurses in Thailand: A cross-sectional survey. *International Journal of Nursing Studies*, *p. 117*, 103882.

Sharifi Kia, A., Rafizadeh, M., & Shahmoradi, L. (2023). Telemedicine in the emergency department: an overview of systematic reviews. *Journal of Public Health*, *31*(8), 1193–1207.

Sharifi Kia, A., Rafizadeh, M., & Shahmoradi, L. (2023). Telemedicine in the emergency department: an overview of systematic reviews. *Journal of Public Health*, *31*(8), 1193-1207.

Talal, A. H., Sofikitou, E. M., Jaanimägi, U., Zeremski, M., Tobin, J. N., & Markatou, M. (2020). A framework for patient-centered telemedicine: Application and lessons learned from vulnerable populations. *Journal of Biomedical Informatics*, *112*, 103622.

Wu, T. C., & Ho, C. T. B. (2023). A scoping review of metaverse in emergency medicine. *Australasian emergency care*, *26*(1), 75-83.

Wu, T. C., & Ho, C. T. B. (2023). A scoping review of metaverse in emergency medicine. *Australasian emergency care*, *26*(1), 75-83.