

How eHealth has contributed to the improvement of the service provided to patients

Jamaan Mansour Duhaim Aldosari^{1*}, MOHAMMED MUFLIH AHMED ALSAQR², Moneer Yahya Jaber Wadani³, RAMI MOHAMMED SWYID AL SHAIBAN⁴, TALAL ABDULKARIM SAAD ALWARTHAN⁵, Jubran Hussain Mosa Muyidi⁶, Abdullah saad mohammed alrafeah⁷

^{1*}Corresponding Author, Technician Nursing, Imam Abdul Rahman Al-Faisal Hospital

^{2,4}Laboratory specialist, Hotat Bani Tamim General Hospital

⁴Anesthesia technician, Hotat Bani Tamim General Hospital

^{5,6}Laboratory technician, Hotat Bani Tamim General Hospital

⁷Radiology Technician, Hotat Bani Tamim General Hospital

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Abstract:

With the emergence of e-health, which refers to the integration of technology and health, the services provided to patients have been significantly improved. Using electronic health records, telemedicine, remote patient monitoring, and other digital tools, eHealth is changing the healthcare landscape and improving patient care, access, and useful. One of the major contributions of e-health to improving patient care is to simplify the management of electronic health records (EHRs). EHRs allow healthcare professionals to easily access patient information such as medical history, medications, diagnoses and test results. In addition, e-medicine has given rise to telemedicine, which provides remote medical services to patients. In addition, telemedicine expands access to specialized services because patients can seek expert advice from multiple locations, eliminating geographic barriers and reducing waiting times. Another major contribution of e-health to improving patient care is the emergence of remote patient monitoring (RPM). RPM involves the use of connected devices, such as wearable sensors or mobile devices, to monitor a patient's health. This proactive approach will not only improve patient outcomes but also reduce the burden on hospitals and emergency services. In addition to the advances mentioned above, e-health improves patient care through the integration of digital tools. It reduces wait times to schedule appointments and increases patient satisfaction. In addition, digital health apps and websites provide patients with reliable medical information, self-management strategies, and healthy lifestyle resources. In conclusion, e-health has made a significant contribution to improving the services provided to patients. As technology continues to advance, eHealth will play an ever-increasing role in shaping the future of healthcare and will lead to further advances in patient care.

Keywords: e-health, laboratory, nursing, patient care

Introduction:

In recent years, the rapid advancement of technology has revolutionized several sectors, including the healthcare industry. The emergence of eHealth has significantly improved the services provided to patients at the Master level. eHealth refers to the utilization of electronic means in delivering healthcare services, storing

health information, and promoting health education. This essay explores how eHealth has contributed to enhancing patient services by increasing accessibility, improving efficiency, facilitating better communication, and enabling personalized care.

Increased Accessibility:

One of the primary benefits of eHealth is its ability to increase accessibility to healthcare services. Through telemedicine, patients can consult with healthcare professionals remotely, eliminating the need to travel long distances or wait for extended periods. This is particularly beneficial for individuals residing in rural or underserved areas, where access to quality healthcare was previously challenging. By overcoming geographical barriers, eHealth ensures that patients at the Master level can receive timely and expert consultations, leading to improved outcomes.

Improved Efficiency:

eHealth has streamlined various healthcare processes, leading to improved efficiency in patient services. Electronic health records (EHRs) have replaced the traditional paper-based systems, enabling healthcare providers to access and update patient information instantaneously. This promotes seamless coordination between different healthcare professionals involved in a patient's care, enhancing the accuracy and reliability of medical records. Additionally, e-prescriptions reduce waiting times at pharmacies and minimize medication errors by providing real-time information on allergies, drug interactions, and dosage instructions.

E-health and nursing

eHealth technologies have significantly impacted the field of nursing, enhancing patient care, improving communication and collaboration, and streamlining workflow processes. Here are some ways in which eHealth has helped nursing:

Electronic Health Records (EHRs): eHealth has facilitated the adoption of electronic health records, providing nurses with instant access to patient information. EHRs allow nurses to view medical history, medication records, allergies, and test results, enabling them to make informed decisions and provide more efficient and accurate care. EHRs also promote interdisciplinary communication and care coordination among healthcare providers.

Telehealth and Telemedicine: eHealth has expanded the reach of nursing care through telehealth and telemedicine services. Nurses can deliver care remotely, providing consultations, monitoring patients' conditions, and offering education and advice through video conferencing or telecommunication platforms. This approach improves access to care, particularly for patients in rural or underserved areas, and reduces unnecessary hospital visits.

Mobile Applications and Wearable Devices: Nursing has been positively impacted by the proliferation of mobile applications and wearable devices. Nurses can utilize mobile apps to manage patient data, access clinical guidelines, and facilitate medication administration. Wearable devices, such as smartwatches or health trackers, can monitor patients' vital signs and transmit real-time data to nurses, enabling remote monitoring and early intervention.



Clinical Decision Support Systems (CDSS): eHealth tools, including CDSS, provide nurses with evidence-based guidelines, alerts, and reminders during clinical decision-making. CDSS assists nurses in identifying potential drug interactions, suggesting appropriate interventions, and promoting adherence to best practices. This technology helps reduce medication errors, improve patient safety, and enhance nursing practice.

Photo 1: show hoe e-health hep nurse to monitoring patients

Remote Patient Monitoring: eHealth enables nurses to remotely monitor patients' health conditions through connected devices. For example, patients with chronic diseases can use at-home monitoring devices to track their blood pressure, blood glucose levels, or oxygen saturation. Nurses can access this data, provide remote support, and intervene as needed to prevent complications or exacerbations.

Nursing Education and Training: eHealth technologies have transformed nursing education and training programs. Online platforms, virtual simulations, and e-learning modules provide opportunities for distance learning, continuing education, and skill development. Nurses can access resources, participate in interactive sessions, and stay updated with advancements in their field, enhancing their knowledge and competencies.

Communication and Collaboration: eHealth tools, such as secure messaging platforms and video conferencing, have improved communication and collaboration among nurses, healthcare teams, and patients. Nurses can communicate with colleagues, consult specialists, and engage in interdisciplinary discussions more efficiently, leading to better care coordination and improved patient outcomes.

Data Analytics and Research: eHealth technologies enable nurses to leverage data analytics tools to identify trends, patterns, and insights from large datasets. This helps in population health management, identifying areas for quality improvement, and conducting research to inform evidence-based nursing practice. Nurses can contribute to the generation of new knowledge and improve patient care through the use of eHealth technologies.

Overall, eHealth technologies have transformed nursing practice by improving access to information, enhancing communication and collaboration, enabling remote care delivery, and supporting evidence-based decision-making. These advancements have the potential to enhance patient outcomes, increase efficiency, and improve the overall quality of nursing care.

Facilitated Communication:

Effective communication between healthcare providers, patients, and their families is crucial for providing comprehensive care. eHealth tools offer various channels for communication, such as secure messaging platforms and video conferencing, which facilitate timely and convenient interactions. Patients can seek clarifications, share medical histories, and discuss treatment plans with their healthcare professionals from the comfort of their homes. This enhanced communication promotes patient engagement, to better adherence to treatment regimens and improved health outcomes.

Personalized Care:

With the vast amount of health information available, eHealth enables healthcare providers to deliver personalized care based on individual needs and preferences. Through intelligent algorithms, electronic platforms can analyze patient data and provide tailored recommendations for preventive measures, treatment plans, and lifestyle modifications. For instance, wearable devices can monitor vital signs and provide real-time feedback, assisting patients in managing chronic conditions effectively. This personalized approach allows patients at the Master level to actively participate in their healthcare decisions, leading to better self-management and overall wellness.

E-health on laboratory

eHealth, which refers to the use of electronic technologies and communication tools in healthcare, has had a significant impact on various aspects of the laboratory. Here are some ways in which eHealth has influenced laboratory practices:

Electronic Medical Records (EMRs): eHealth has facilitated the transition from paper-based medical records to electronic systems. EMRs store patient information, including laboratory test results, in a digital format. This has streamlined data management, improved accessibility, and reduced the risk of errors associated with manual record-keeping.

Laboratory Information Systems (LIS): LIS is a software system used to manage laboratory processes, including test ordering, sample tracking, and result reporting. eHealth has enhanced LIS capabilities, enabling seamless integration with other healthcare systems, such as EMRs. This integration promotes efficient data exchange, reduces duplication of efforts, and supports better coordination between healthcare providers.

Telepathology: Telepathology leverages eHealth technologies to transmit and interpret pathology images remotely. Pathologists can review digital images of tissue samples and provide diagnoses without being physically present in the laboratory. This approach improves access to specialized expertise, particularly in remote areas, and enables faster turnaround times for diagnosis.

Remote Monitoring: eHealth has facilitated remote monitoring of patients' health parameters, such as blood glucose levels, blood pressure, and heart rate. This data can be transmitted in real-time to laboratories for analysis and interpretation. Remote monitoring allows for timely detection of abnormalities, early intervention, and personalized treatment plans.



Photo2: Show the use of e-health in laboratory

Data Analytics: With the digitization of laboratory data, eHealth has paved the way for advanced data analytics and decision support systems. Through data mining and machine learning algorithms, laboratories can analyze

large datasets to identify trends, patterns, and correlations. These insights can aid in disease surveillance, population health management, and the development of personalized treatment approaches.

Virtual Consultations: eHealth enables virtual consultations between healthcare providers, including laboratory professionals. This facilitates collaborative decision-making, knowledge sharing, and second opinions. Virtual consultations can save time and resources, especially when seeking expert advice or reviewing complex cases.

E-Learning and Training: eHealth technologies have transformed laboratory education and training. Online platforms, webinars, and virtual simulations provide opportunities for distance learning, continuing education, and skill development. Laboratory professionals can access resources, participate in interactive sessions, and stay updated with advancements in their field.

Quality Assurance: eHealth tools have improved quality assurance processes in laboratories. Electronic systems can track and monitor the entire testing process, from sample collection to result delivery. They can also facilitate proficiency testing, quality control analysis, and automated alerts for abnormal results or instrument malfunctions.

Overall, eHealth has revolutionized laboratory practices by enhancing data management, improving accessibility, promoting collaboration, enabling remote diagnostics, and leveraging advanced analytics. These advancements contribute to more efficient, accurate, and patient-centered laboratory services.

Promotion of Health Education:

eHealth platforms have also proven instrumental in promoting health education among patients. Accessible online resources, such as reputable websites, video tutorials, and interactive tools, empower individuals to gain a better understanding of their health conditions. Patients can access evidence-based information regarding the management of their ailments, preventive measures, and healthy lifestyle choices. This knowledge empowers patients to make informed decisions, adopt healthier behaviors, and actively participate in disease prevention and self-care.

Conclusion:

In conclusion, eHealth has significantly contributed to improving patient services at the Master level. The accessibility offered by telemedicine, the efficiency of EHRs, the facilitation of communication, the provision of personalized care, and the promotion of health education are key factors that have transformed healthcare delivery. As technology continues to advance, it is vital for healthcare professionals and policymakers to embrace and harness the potential of eHealth to further improve patient care. By incorporating innovative solutions, healthcare services can continue to evolve, ensuring that patients' needs are met effectively and efficiently.

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