

Emergency Healthcare Services Provider Website “Mediseva”

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Abstract

The e-Health Care Management system is a technology solution developed to address the critical problems faced by the public due to the lack of adequate healthcare facilities in society, which has resulted in the loss of many lives. This project aims to design and develop a comprehensive and user-friendly system that outlines all the functional and requirement aspects for the Global Life Clinic to provide the expected quality and output from the application. The system will provide essential features such as online appointment scheduling, patient records management, medication tracking, and remote consultation to improve healthcare delivery and enhance patient outcomes. Moreover, the project will connect doctors and patients and provide emergency medical services like blood donation, tracking the information provided by the foundations that have the perspective to donate organs and emergency medical drug providers. The proposed system will involve extensive research and analysis to identify the needs and requirements of the Global Life Clinic and ensure the application's design is aligned with its workflow. The end product will be a comprehensive and user-friendly e-Health Care Management system that will help transform healthcare delivery and save lives

Keywords: e-healthcare, healthcare management, telemedicine, patient records, remote consultation, medication tracking, Emergency medical services, blood donation, organ donation

1. INTRODUCTION

The e-Health Care Management system that we aim to develop is one such solution that can help transform healthcare delivery and improve patient outcomes. The objective of this project is to design and develop an application that can effectively manage the essential aspects of healthcare delivery for the Global Life Clinic, a leading healthcare provider. This application will outline all the functional and requirement aspects necessary to provide the expected quality and output from the system.

The proposed e-Health Care Management system will provide a range of essential features, including online appointment scheduling, patient records management, medication tracking, and remote consultation. These features are designed to

improve healthcare delivery and enhance patient outcomes by providing better access to healthcare services and more personalized care.

To ensure that the application design aligns with the Global Life Clinic's workflow, extensive research and analysis will be conducted to identify their needs and requirements. The development team will work closely with the clinic to ensure that the application design meets their expectations and effectively addresses the critical healthcare challenges they face.

2. LITERATURE SURVEY

The concept of e-Healthcare has been gaining momentum over the years, with a growing need to provide better access to healthcare services, especially in developing countries. According to a

report by the World Health Organization (WHO), there is a global shortage of healthcare workers, with a shortage of approximately 7.2 million doctors, nurses, and midwives worldwide (WHO, 2020). This has led to a need for innovative solutions that can improve the efficiency and effectiveness of healthcare delivery, such as e-Healthcare.

Several studies have highlighted the potential benefits of e-Healthcare systems in improving healthcare delivery. For instance, a study by Abdelrahman et al. (2019) found that e-Healthcare systems can improve the quality of healthcare services, reduce costs, and increase patient satisfaction. Another study by Alharthi et al. (2020) showed that e-Healthcare systems can help reduce waiting times for patients, enhance communication between patients and healthcare providers, and improve patient outcomes.

In terms of specific features, online appointment scheduling has been identified as a critical aspect of e-Healthcare systems. A study by Fakolade et al. (2019) found that online appointment scheduling can help reduce waiting times, increase patient satisfaction, and improve healthcare service delivery. Patient records management is also an important feature, as it allows healthcare providers to access patient information quickly and efficiently, enabling them to make better-informed decisions about patient care.

Remote consultation has become increasingly important, especially in the wake of the COVID-19 pandemic. A study by Bashshur et al. (2020) highlighted the potential benefits of telemedicine, which involves remote consultation, in reducing the risk of infection transmission, improving access to healthcare services, and enhancing the quality of care.

In terms of implementation, several studies have

identified the need for effective collaboration between healthcare providers and technology providers. For instance, a study by Durrani et al. (2019) found that involving healthcare providers in the design and development of e-Healthcare systems can help ensure that the systems are aligned with their needs and workflows.

Overall, the literature suggests that e-Healthcare systems can significantly improve healthcare service delivery, reduce costs, and enhance patient outcomes. Therefore, the development of an e-Healthcare Management system for Global Life Clinic has the potential to transform healthcare delivery and save lives.

3. OBJECTIVES

The objective of this literature survey is to provide an overview of the current state of e-Healthcare Management systems and their impact on healthcare delivery. It will examine the challenges faced by the healthcare industry and how e-Healthcare Management systems can help to address these challenges. The survey will also identify the key features and functionalities of these systems and their effectiveness in improving healthcare delivery and patient outcomes. Additionally, it will explore the existing research on e-Healthcare Management systems and highlight the gaps and limitations in current knowledge. Ultimately, the survey aims to provide a comprehensive understanding of e-Healthcare Management systems and their potential to transform healthcare delivery and improve patient outcomes.

4. METHODOLOGY

1. Needs Assessment: This phase will involve conducting a thorough analysis of the Global Life Clinic's workflow to identify their needs and requirements for the e-Health Care Management system. We will also conduct a survey of potential users to gain insight into their

expectations of the system.

2. **System Design:** In this phase, we will design the system's architecture and functionalities based on the needs and requirements identified in the needs assessment phase. The system design will include features such as online appointment scheduling, patient records management, medication tracking, and remote consultation.
3. **Development:** This phase will involve the actual coding and development of the e-Health Care Management system based on the system design specifications.
4. **Testing and Validation:** The developed system will be tested thoroughly to ensure that it meets the needs and requirements of the Global Life Clinic and is functioning correctly. The testing will involve various scenarios and stress tests to validate the system's stability and security.
5. **Implementation:** Once the system has been developed and validated, it will be implemented at the Global Life Clinic. This phase will involve training staff on the use of the system and ensuring that it is integrated seamlessly into their workflow.
6. **Maintenance and Support:** The final phase of the methodology involves providing ongoing maintenance and support for the e-Health Care Management system to ensure that it continues to function optimally and meets the evolving needs of the Global Life Clinic.

Input:

- Patient request for emergency medical services
- Information on available blood donors and organs
- Doctor availability for emergency consultations
- Availability of emergency medical drugs

Output:

- Emergency medical services provided to the patient
- Organ and blood donors matched with patients in

need

- Emergency consultations arranged with available doctors
- Emergency medical drugs provided to the patient

Functionality:

- The system will have a database of registered blood and organ donors, along with their contact information and blood type or organ donation preferences.
- Patients in need of emergency medical services can submit a request through the system, which will search for and match them with available donors based on their location and blood type or organ donation preference.
- The system will also provide information on the availability of emergency medical drugs and arrange for their delivery to the patient if needed.
- In case of emergency consultations, the system will provide information on available doctors and arrange for consultations with them.
- The system will ensure that all information is kept confidential and secure, adhering to privacy laws and regulations.
- The system will also have a feedback mechanism to gather information on the quality of service provided and use it to continuously improve its functionality.

5. FUTURE WORK:

In order to improve and enhance the e-Health Care Management system, several future work areas can be explored. One potential area is the integration of wearable devices such as smartwatches and fitness trackers, which can help patients, monitor their health more accurately and share this data with their healthcare providers. Additionally, artificial intelligence and machine learning algorithms could be incorporated to

automate certain aspects of healthcare delivery, such as patient triage and diagnosis, which could improve patient outcomes and reduce healthcare costs.

Telemedicine is another area of focus, particularly in light of the COVID-19 pandemic, which has highlighted the importance of remote healthcare services. The e-Health Care Management system could be enhanced to support video consultations between patients and healthcare providers, making it easier for patients to access care from home. Furthermore, integrating electronic health records (EHRs) into the system would allow healthcare providers to access a patient's complete medical history, leading to more informed decision-making and reducing the risk of medical errors.

Finally, there is potential to improve patient engagement with the e-Health Care Management system by developing features such as gamification to encourage patients to take an active role in managing their health. By exploring these future work areas, the e-Health Care Management system can continue to evolve and improve, providing patients with more personalized and effective healthcare services image.

6. REFERENCES

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