

USE OF MODERN TECTNOLOGY IN CAREHOME

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INTRODUCTION

Technology is an important component for any organisation in the 21st century. The adoption of technology is important as it build up the quality of care, decrease hospitals stays and improve patience diagnosis and accurate prescriptions Wernhart and team (Wernhart et al, 2019). Even though technology improves the efficiency and quality of care provided in the healthcare organisations the need to be more research done on the adoption of technology to enhance quality without compromising on the privacy of the service user's information.

According to (WHO,2012) health technology is the 'the application of scientific knowledge of practical purposes including its corresponding and equipment to solve health care related problems and improve quality of life.'" Recent studies by various scholars show that the adoption of technology in health care organisation helps not only improve quality of care provided to service user's but also increases the efficiency in its operations. This literature review will then focus on the adoption of technology in health care facilities with a case study of Lenox House a care facility located at number 75 Durham Road in London.

RATIONALE

The contribution of technology to the operation in healthcare organisation cannot be under-rated. Through us of technology more services can be provided to the service user in a more efficient way whereby increasing the rate at which they receive services, can access their medical reports and their safety enhanced. It is important therefore to know the various

Benefits of technology to the health care organisation but with analysis into the various ways that the collected information without prior knowledge of the service users. The rationale for this study therefore I s to analyse the various ways in which technology can be used to enhance the efficiency in a health care organisation and the protection of data collected from service users. The various benefits of technology in healthcare facilities have been presented and recommendations made on how the employees could integrate it further to their operations.

OBJECTIVES

The following objectives have been followed through the literature review.

- To formulate the current usage of technology in healthcare organisations.
- ▢ To reflect on the benefits of technology in the quality of care to service users.
- ▢ To show the importance of integration of technology by healthcare professionals.
- ▢ To show the need for safe handling of information collected from the service users.
- ▢ To give recommendations on the safe use of technology in health care organisations for efficiency and optimisation of service.

METHODOLOGY

The most important function of a project is the successful collection and analysis of data. This study focuses on the adoption of technology in health care organisations and there will be use of us of qualitative and secondary data thematic analysis. The use of secondary data entails the use of academic journal, articles, government reports, reports from reputable health organisations, books, and credible websites to get information on the use of technology in health care organisations. The literature review will be obtained from such literature database as PubMed and Google Scholar. The Qualitative analysis is used widely across medicine and health disciplines like health services research Northcutt and team (Northcutt et al,2004).

LITERATURE REVIEW METHODOLOGY

During the search of literature, the keywords will play a key role in the identification of the literatures. The words will be used entirely in the literature databases and in the combination using Boolean operators (AND, OR, and Not). The key words for the search will be: big data, artificial intelligence, health technology, modern technology and practices, telemedicine, internet of things, block chain technology, smart devices, medical education and virtual clinic trials. To get credible information for this review the literature sources should be genuine. There will be the collection of legal data and evidence through careful analysis and explaining all the factors pertaining the use of technology in the health care organisations.

There will be the use of the exclusion and inclusion criteria. The inclusion criteria will involve use of articles that are related to digital health and have been published in the last six years in English language, from credible sources such as peer reviewed articles, academic journals and publications from reputable organisations like the World Health Organisation (WHO). The exclusion criteria will involve the excluding from use of any information that is not from credible sources and older than six years as it may not relate a current picture of the use of technology thereby affecting the credibility of the study.

Data summary table

Author Names	Year of Publication	Title of Publication	Literature purpose	Methodology
Cherill, L. and Linsley, P.	2017	The use of information and communication technologies in mental health nursing.	To establish the use of technology in health care organisations such as nursing homes. Some of the benefit for the technology was increased efficiency	Systematic review
Jimenez, G.; Matchar, D., Koh, G. and Car, J.,	2020	Multicomponent interventions for enhancing primary care.	To analyse the various types of technology applications at the facilities like use of electronic health records, data monitoring technologies and use of online portals for messaging	Systematic review
Mitchell, M., and Kan	2019	Digital technology and the future of health systems.	To find out the importance of using technology in health care organisations	Cohort study
Senbekov, M., Saliev, T., Bukeyeva, Z., Alabayeva, A., Zhanaliyeva, M., Aitenova, N., Toishibekov, Y. and Fakhradiyev, I.	2020	The recent progress and Applications of digital technologies in healthcare	To establish the recent advancement of services and quality care at the health organisations	A literature review
Nebeker, C., Torous, J. and Bartlett Ellis	2019	Building the case for actionable ethics in digital health research	To establish the safe use of information collected from service users in	A literature review

		supported by artificial intelligence	health care organisations and discuss the importance of ethics among various health stakeholders when handling the information	
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SECONDARY DATA ANALYSIS

From the above literature it is evidence that technology is important for the successful operations of any modern health care organisation. According to Cherill and team (Cherill et al,2017) the implementation of innovative technology and communication technology in health has led to the development of e-health in most of the health care organisation in the UK. E-health refers to the transfer of health resources and health care electronically. It constitutes three main areas, delivery of health information, using of technology for education training of the health professionals and using the technology for transactions like e-businesses in the health care system management. According to Jimenez and team (Jimenez et al, 2020), Mitchell and team (Michell et al,2019) and Nebeker and team (Nebeker et al,2019) the use of technology in the health care settings has led to more effective organisation of the operations and increased quality care for the service users. According to the studies there is increased demand for use of technology in health care organisation due to the shortage in care professionals and increase in demand for professional support.

Using medical digital technologies, there is faster access of health information to the public. From the studies conducted by WHO (2021) the technology helps in the optimization of diagnosis, consultation and treatment service users. The successful use of technology at the facility is according to Wernhart and team (Wernhart et al, 2019) dependent on some factors like the qualification of the health care professionals, their attitude towards the usage of the technology and the choice of system. From the study, the successful integration of the technology due to its adoption by the care professionals helps in better customer satisfaction thereby increasing the use of the patient-based approach where the needs of the patients are met.

Using the digital health, there is better access and flexibility of the healthcare to the service users and public like the availability of information on health, treatment, complications and medical consultative services. Using technology there is ease of access for services like telemedicine that allows individuals in remote areas to get consultations, medical advice and also get drugs from online pharmacies Cherill and team (Cherill et al, 2017), Jimenez and team (Jimenez et al, 2020) and Syroid and team (Syroid et al, 2020). According to these studies, the artificial intelligence helps in the improvement of performance and correct diagnosis for the service users. The artificial intelligence is used in the diagnosis and treatment of various diseases through areas such as health monitoring, management of the service user's data, surgery consultation and personalised treatment. Using technology there is increased safety for the patients as there will correct diagnosis and a decrease in wrong dispensation of drugs (WHO, 2021).

According to Nebeker it is important for the use of the data collected in the health care organisations carefully. His study is of the view that though technology helps in the efficiency and operations of the health care organisations, the risks are far much more especially due to the use of information to third parties. There should be strict regulations set in place in all health care organisations to ensure that according to the data protection act there is no unauthorised use of information from the health care facilities to third parties like insurance providers or research companies without prior information to the service user. There should also be no unlawful disclosure of information from any service user (UK GOV,2021). There should be training of various health professionals the handling of various smart devices and technology to enhance their use at the facilities Syroid and team (Syroid et al,2020).

CONCLUSION

Technology is useful in the health care organisations not only for the efficiency of operations but also for the enhancement of the service users. Through various use of technologies, there is ease with which the service users can access information like their health records, their drug prescriptions and their appointments. It is also important for the successful integration of technology in the organisation through changing of attitudes by the health care professional and through the use of systems that are friendly and meet the various health needs of the service users.

RECOMMENDATIONS

From the above literature review there are some measures that could be useful in the successful adoption of technology in the organisation.

- ❑ There should be regular training of all the health care facilities to ensure compliance of system usage.
- ❑ Integration of the system that is used at the care facility to ensure adoption of the block chain technology that will ensure the safe handling of information as it is all in a central place.
- ❑ There should be use of system that is user friendly and that the service users will be able to use through logins to get all required services.
- ❑ The government should allocate more funds for the successful integration of technology in all health care organisations to ensure better service delivery and increased access of services in the remote areas like the use of telemedicine.
- ❑ Implementation of stiffer laws and regulations that will ensure that no service user information is used by any third parties like insurances providers or research firms.

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