



RESEARCH SKILLS FOR HEALTHCARE

DIGITAL SKILLS AND RESEARCH METHODS
– BMSW 4003

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Introduction

Technology has transformed the health care industry invariably as it has contributed to solving a lot of problems. It has been adopted by NHS for controlling the expenses of healthcare and improve the effectiveness of health care service. for its agenda of providing free medical treatment to everyone, NHS has developed a new Research and development strategy in which it has been using technology for healthcare assessment (NHS, 2021).

Aim and objectives

This research aims at exploring the technology and communication system adopted by Barchester healthcare ltd. For this the research will focus on the following objectives:

- To explore the new technology adopted by Barchester Healthcare Ltd
- To identify the challenges that occurred in adopting these technologies.
- To analyse the implication of the technological adoption on the service users.

Rationale

Technology has its varied applicability to different individuals; therefore, a care home needs to have an efficient facility that helps in ensuring that the healthcare operations are benefitting the service users at their maximum potential. As technology has become the need of the generation, every individual has become dependent on it (GOV.UK, 2018).

Methodology

This research is based on the secondary data that pre-exist in the chosen research area. This research uses the interpretivism philosophy of researching to understand the social reality of the chosen area. The deductive approach has been used to test the existing theories associated with the research area. The deductive approach is the approach in which the researcher develops a hypothesis based on the existing theory and then test it. This research has used secondary data for which it has collected data using Literature review methodology (Kumar, 2018).

The literature review can be defined as a comprehensive and systematic analysis of the previous literary sources on a particular topic or area. It helps in gaining in-depth information about the topic and identifying the elements of interest. The sources from where these literary sources have been identified are the Google scholar database, the official website of the UK government, NHS, Barchester health care, and other related authorities (Snyder, 2019).

The data obtained from these sources have been checked for its validity and reliability to cloud the interpretation of the data. To ensure validity, the data has been chosen from current years so that it can be valid on the current challenges.

The ethical access to these sources has been confirmed by asking permission of the authors and firms so that they can be used in the research. The limitation of this research is that it only includes secondary data for the exploration of the research question. (Kumar, 2018).

Literature review

According to Stern (2018), the modern healthcare workplace is being continuously benefitted as well as challenged by the dynamic economic environment due to its base of growth in adopting digital transformation and automation. Healthcare organisations need a secure, reliable and efficient technological infrastructure that helps the professionals to keep up with the needs of medicine demands, patient experience and compliance in health care.

Christodoulakis et al (2017) examined that modern healthcare workplaces are utilising technology to digitalise workplaces for gaining competitive advantages over those healthcare workplaces that do not have technological facilities in this new era of the digital world. On average a healthcare worker invests 1.8 hours every day on exploring the information they need in executing their jobs effectively. This is a substantial portion of their working hours that affects their efficiency in executing daily job requirements. According to Harrison et al (2018), with centralised access to healthcare information in modern healthcare workplaces, the workers can be provided with the feasibility to access the information they need in faster ways.

According to Kruse et al (2017), in modern workplaces of a healthcare organisation, there are increased chances of cybercrime as there is increased chances of accessing someone's information. Global cybercrime damage in the healthcare sector is expected to reach \$6 trillion annually that is a substantial loss to the sector that requires effective consideration of the management. To store, edit, and share sensitive information of patients in the healthcare organisation, cloud-enabled technologies can be adopted that helps in preventing the data from being compromised to any other person without permission.

Morilla et al (2017) found that with the adoption of technologically enables processes and systems in healthcare, it can save \$40,000 annually as the cost of paper, document management, printing, storing, waste management, filing cost, etc. can be converted to automatic and digitalised system. The use of the automatic system for these purposes can help in increasing workflow and time efficiency of employees by 20%. This will help the organisation to save up to 6,000 hours annually that accounts for 2.4 fulltime staff positions annually. In this way, substantial saving can be achieved in the healthcare organisations that

not only saves money but also saves time and effort of the professionals, patients, and families.

According to Matthews (2019), healthcare organisations face various challenges in managing operations. Regulatory and compliance challenges that challenge the professionals to fulfil the requirements by the regulations in their practices that keeps changing. There are challenges to not being informed in time and the risk of violating the regulations. There are challenges of no accountability of complying with the rules and regulations due to lack of system efficiency. The technology has saved time and money for the healthcare organisation; however, a lot of management efforts needs to be done when a new technology is being implemented. This causes management cost to the healthcare organisation and an excessive burden that challenges the efficiency of the management. Barchester has used the strategic approach to partner with IT organisations to provide effective solutions to emerging challenges in the operations. Through its Care home of the Future Campaign, Barchester has partnered with ATLAS eMAR, PainCheck, person-centred Software and Ascom UK four major tech providers in the country to enhance its digital capabilities in ways care homes work (Barchester, 2021).

The IT partners of Barchester Healthcare Ltd. are ensuring the cloud-enabled, efficiently connected and solution-rich work environment for the staff so that they can become the most productive digital workforce. This new digital workplace allows improved communication, collaboration and information exchange across the healthcare facilities at any given point in time. Electronic health records for the next generation are a new emerging need of the modern healthcare industry to enhance the system for the better and holistic care of the next generation. These experts take care of the digital infrastructure of the company and enable the professionals to focus on patient care and service delivery. These solutions include medical device enablement, application initiatives, service desk support and improved end-user experience (Matthews, 2019).

Secondary data analysis

New technology adopted by Barchester Healthcare Ltd

Barchester has increased its strategic efforts in adopting technology for better service delivery and focus on the future vision for care service delivery. 70% of its care homes are reliant on the paper-based system to operate and management services. The Care home of the Future Campaign of Barchester has focused on utilising best-in-class technology in each of its care homes. It has substantially enhanced the efficiency of the care home and reduced the cost of managing a paper-based system. The time and efforts by the professionals and management have reduced which has increased the flexibility of care homes to deal with more issues. The

use of technology has enhanced the communication efficiency of the care homes in keeping every staff updated with the knowledge and information (Harrison et al., 2018).

Challenges occurred in adopting new technologies

According to Mather and Cummings (2019), in the adoption of new technology, the organisation must have the capacity and feasibility to handle the challenges caused by the new technology. It includes the lack of accountability of complying with the rules and regulations due to the inefficient system. The excessive burden of managing the training and educating the staff for using new technology has increased. The lack of an efficient communication system has increased the misinterpretation of the information. It also causes differences in the adoption of technology in different care homes. Due to such differences, different care homes of Barchester Healthcare Ltd. leads to different healthcare outcomes. The challenges of paper-based management of health records have captured a significant amount of money and time of the staff. This can be mitigated through the adoption of a techno-driven system that can help in digitalising every process of data recording, process and storing. For instance, electronic health records can be recorded based on a single pattern or organisation of data that will help in communicating the information throughout healthcare. This will be very beneficial for simplifying the processes and providing a better end-user experience to the staffs (Christodoulakis et al., 2017).

The implication of the technological adoption of the service users

The use of the digital system for recording patient records and operational data will help in easing the overall journey of a service user with the care home. The safety and security of data will be more effective with the help of cloud-based storage of the data which can be protected from any third person usage. The staff will be able to assist the service user with a rapid and effective response. The family details and visitor details will be more organised that will enhance the information system of the organisation with more specific details about the health trends. This will be beneficial for the service user in long term planning of providing holistic care (Morilla et al., 2017).

Conclusion and Recommendation

It can be concluded that Barchester Healthcare Ltd. has been utilising technology at a large scale for ensuring the best possible services to the target population. The staffs of the care homes and hospitals it is operating have been challenged to continue increasing their skills and knowledge about new technologies to fulfil their job criteria. The lack of efficient communication channels has been identified as the most challenging factor to establish equality in the healthcare organisation. For this, the organisation has been working towards centralising the communication channel so that the staff can obtain information about their need whenever they want. The cost of paper-based systems in most of its care homes has captured a substantial amount of time and money of Barchester Healthcare Ltd. The use of technology in developing electronic records of the patients, operations and other processes has increased the accountability of the services and reduce the cost. In this way, the communication and information system adopted by Barchester Healthcare Ltd. has been enhanced by the utilisation of new technology that has increased its efficiency in addressing care needs and deliver quality care.

It is recommended for Barchester healthcare ltd. that should adopt Blockchain technology that will help in mitigating the challenge of interoperability of the system by transiting it from institution-based interoperability to patient-centred interoperability (Alhadhrami et al., 2017).

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