

LCHS4002 Digital Skills and Research Methods

Assessment 2- Research skills for healthcare

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Introduction

The report will be discussing the different types of modern technologies that the **nursing homes** within the healthcare sector can make use of to enhance their operational activities. The report will be analysing the challenges or issues that organisations within the healthcare sector can face due to the latest technologies. Concerning the technologies, the particular issues that the nursing home has been facing will be examined. Furthermore, justification will be made relative to the issues that the nursing home has been facing. The research idea will also be formulated and a particular methodology for the respective research will be drawn. Lastly, the report will discover how reliable sources within the research can support the findings and how the sources were sourced was analysed.

“Different technologies used in the modern health care workplace”

Technologies have changed the way people these days communicate, exercise, shop and so on. Likewise, in the healthcare sector of nursing homes, technology has played a vital role in extending operational activities to a great extent (Krick *et al.*, 2019). Technology has brought welcoming changes within the nursing homes on which the personnel have been relying more and more as this has made their job simpler and more efficient. Some of the technologies used within the nursing homes of the healthcare sector include-

Telehealth: It is one of the emerging fields which has been taking a significant place in the modern healthcare workplace. This technology helps the personnel to provide and monitor the health of the patients remotely even to those who have very poor health conditions (Gajarawala and Pelkowski, 2021). This type of technology has helped the personnel within the nursing homes to operate efficiently without having the expertise or professional skills to ensure quality services to the patients.

Electronic Charting: This technology has helped nursing homes to shift from paper charting to maintain records of the patients, and workers, which was difficult to understand and often used to get lost, to using computers. This computer software has allowed nursing homes to see data, review the orders, and even chart the assessments of the patients (Chou *et al.*, 2020). This has made it easy for the nurses to visualise data or information in real-time and thereby helps to reduce mistakes or errors relative to the patient care procedures. With the help of this technology, the data can be saved properly and the uncertainty of losing the data can be mitigated.

Wireless communication system: Communication is very important within nursing homes so that efficient and quality health services can be provided to patients. Thus, the wireless communication system has made it easy for the nursing home to effectively share information with the workers by making calls or messaging (Wu *et al.*, 2020). This technology has allowed nursing homes to use hands-free communication methods, and using voice-activated communication systems to make calls to the team members. This type of system is helpful to the nurses because it helps them to ask for help when they are occupied with other things.

Smart beds: The recent development that the healthcare sector has seen is the emergence of smart beds which can not only be used by patients to rest but it can be used for various purposes. Smart beds can help nursing homes to treat patients easily with quality care services (Davoodnia and Etemad, 2019). The smart beds can perform various functions such as repositioning patients, shifting the weight often, and also helping to prevent bedsores. These smart beds save the time of the nurses to reposition the patients manually and more often; these beds can even take vital signs which can indicate the nurses to take immediate action. One of the core features of the smart beds is that it includes sensors which inform the nurses about the patient's movements if they are getting out of bed or the risks of the patient's falls.

Automated IV Pumps: This type of technology has become more and more complex in recent times. The nursing homes can now operate several functions with this technology such as infusing medications, holding libraries of several IV fluids, ensuring that the patients are getting the accurate dose and at the right time (Kangasniemi *et al.*, 2019). This is one of the most effective technologies which nursing homes and other organisations within the healthcare sector can use because through this the IV Pumps can be programmed to automatically start and stop at particular times, to provide medications or doses at the accurate time, and can even ensure communication between the devices.

Thus, these are the most trending and advanced technologies the nursing homes within the healthcare sector can make use of to ensure quality services are rendered to the patients.

“Research Interest (Motivation)”

The technology used in the workplace of the modern healthcare sector has helped nursing homes deal with the changes within the business environment. With the advancement of technologies, the healthcare sector now can provide adequate and on-time healthcare services to patients (Melkas *et al.*, 2020). However, the use of technology in nursing homes has caused many issues or challenges to the firms such as data security and safety, lack of scalability, increased costs, lack of expertise, and lack of organisational change management strategy. Installation of such technologies requires expertise so that

the workers can operate it efficiently so that productivity can be maintained and costs of operations can be minimised which is one of the main concerns relative to the use of technology.

“Problem Statement”

A nursing home is a place where people need not visit the hospital for treatment but cannot even be treated at home. In the nursing home, the use of technology has given several opportunities to enhance the operational activities of organisations. However, nursing homes have been facing issues installing the latest technologies which are **increased costs**. Installation of the technologies has forced the nursing homes to provide training sessions to the workers, and additional equipment to run the technologies due to which the overall operation cost has increased. This is causing challenges to the nursing homes to meet their day-to-day obligations.

“Research Aim”

The main aim of the research is to analyse how technologies can help nursing homes to provide quality services to patients. The research is based on the analysis of the latest and modern technologies that can help mitigate the issues the nursing homes have been facing. The research will analyse how the increased costs can be minimised and appropriate technologies can be installed to process the organisation's functions and operations smoothly.

“Justify the reason behind your choice”

The research is based on the analysis of modern-day technology within nursing homes. The data within the research will help the nursing homes within the healthcare sector to understand how it can help them enhance quality healthcare services. Through this research nursing homes can get an in-depth knowledge of the potentiality of the technologies in mitigating geographic and access-related limitations. Thus the research can be very useful for nursing homes and other organisations within the healthcare sector on how they can mitigate the increased costs and make effective use of the latest technologies.

“Research Idea”

In this research, the topic will be identified along with that the aims and objectives of the research will be determined so that the readers of the research get a clear picture of what the research is going to talk about. The research will then develop the research questions and relative to that the justifications will be made to make the audiences understand why the research topic is useful or important. Furthermore, the methods that can help to ascertain information concerning the topic of the research will be analysed. Lastly, the research will discover how sources within the research can be researched so that they can support the findings within the research.

“Methodology for your chosen research”

The research will be prepared by applying the secondary data collection method so that information can be gained based on facts. The **secondary data collection method** is the process through which information can be ascertained from the information which already exists as developed by some other authors (Ruggiano and Perry, 2019). This type of method is very useful because researchers do not have to spend time finding information as it already exists. This helps to save the costs of the research and makes it easy to access relevant information. Within the secondary data collection method, both **qualitative and quantitative** data will be ascertained so that factual and more reliable data can be covered. This will help to analyse the more detailed and rich data based on the perspective of the participants of the research rather than the investigators.

This means that **mixed methods** will be used in this research so that data can be gained based on facts (Cardoso *et al.*, 2019). However, using this method requires making use of extra resources which can increase the overall costs and therefore, will be very time-consuming.

“Sources”

“Explain/Discover how to find some credible sources to support your research”

The sources within the research will be discovered by identifying the identity of the author to analyse their expertise in the particular field and to know if they are a well-respected publisher. The credibility of the citations will be determined and the relevancy of the data gathered within the research will be analysed to check if the data is up-to-date and can help to predict future circumstances. The variables of each data will be determined so that the biases of the research can be eliminated. This will help to gather reliable sources by making comparisons between the two or more articles. Furthermore, the depth, accuracy, objectivity, and purpose of the sources will be evaluated. Awareness will be maintained by looking into the suffixes of certain sites which can mislead the information of the research in future.

“Find some credible sources relevant to your research and describe the way (From where and how) you found them”

In this research, credible sources have been gathered from Google Scholar where the authenticity of the site and the journals were scrutinised. The research has effectively identified the author’s authenticity and expertise in the field respective to the topic of the research to ensure that the sources can support the information or data developed. The keywords have been effectively used to discover credible sources which have helped to ascertain the most recent source. Each citation used in the research has been aligned with the data accordingly.

“Sources relevant to the research”

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Conclusion

The research has been developed to analyse the various types of technologies which are being used within the nursing homes of the healthcare sector. In the research it has been analysed that there are many issues with the usage of modern technologies such as labour shortages but the most specific issue faced by nursing homes is the increased costs. Within the research, the secondary data collection method will be made use of relative to the secondary sources. In the research, the sources were covered by making use of Google Scholar and using the keywords used in the research.

Reference

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