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The use of technology in the nursery department of the healthcare sector

Contents

1. Introduction.....	1
2. Importance of the use of technology in nursery department within the healthcare workplace.....	2
3. Methodology	4
3.1 The research design.....	4
3.2 Data sources.....	4
3.3 Data analysis	5
4. Analysis	5
Conclusion.....	6
References.....	7

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1. Introduction

Transportation, manufacturing, research and development, and education have experienced different forms of transformation concerning the advancement of technology in the past 30 years. However, one sector that has experienced great improvement due to the presence of new technology in society is the healthcare sector. Information technology is defined as the use of different systems like telecommunications and computers to enter information, process information, store, and send the required information electronically (Committee on Pediatric Workforce et al., 2015). The use of technology in the healthcare workplace, therefore, means the use of technology to manage health-related information easily. The healthcare sector

contains different parts that need to be analyzed separately. In this case, the department that will be analyzed is the nursery department. Nurseries are vital departments in various hospitals where newborn infants are cared for.

This sector is essential in the development of the young ones. The use of technology in this sector has enabled well delivery of many mothers during their delivery time. The reason for selecting this topic is that it contains important matters that are essential for the survival of many children, reducing the number of deaths experienced in society. As per the study by Marcin, Shaikh and Steinhorn (2016), the use of technology in this department has brought many changes to society since mothers have the opportunity to go to work and their children are taken care of effectively. Records concerning newborn children are stored well due to the advancement in the level of technology in this sector; with the advancement in the technology in the healthcare sector, there is a need to focus on the importance of its use of it in the nursery sector nowadays, many patients have an opportunity to access their records easily concerning their children, this makes the research to focus on the importance of the use of modern technology in nurseries in promoting the healthcare workplace (Flocks et al., 2013).

2. Importance of the use of technology in nursery department within the healthcare workplace

A nursery in the healthcare sector refers to the department where the newborn child is taken care of. It is essential for many mothers who have children since they can take their children to the place and get the right care they are required to have. The following are some of how the use of technology in the nursery has changed the workplace place of most of the healthcare sectors.

Technology in the nurseries makes accessing most of the information concerning children easy. Electronic health records concerning the patients who have brought their children to the hospitals are stored on computers (Lake et al., 2020). With new technology, it has become easy for nurses and patients to get records concerning their children electronically; this technology has transformed the healthcare sector from where it used to be. Electronic health record has been of great importance in the new technology since it contains all the information concerning the patients admitted to the

healthcare centre (Holtermann et al., 2020). The advancement of telehealth has played a big role in the development of most healthcare sectors. Fairweather (2017) explains that the presence of telecommunication has enabled patients to receive their nursing care through remote patient monitoring, live video conferences, and mobile health applications, which help communicate from one place to another. In the past, when technology was not well used in the nursery department, the level of accessibility in the hospital records was poor, hence considered tiresome (Gomez, Kagan and Fox, 2015). After advancements in the level of technology across the 21st century, the level of record keeping has increased. All data is digitally recorded, and anyone with access can see the data they are looking for, making those in remote areas to access the data concerning the healthcare their children receive in different hospitals as they are taken care of.

The level of human error has reduced in the nursery department. A nursery is critical where the level of errors expected in the place needs to be minimal or zero since it involves a person's life. Technology has come up with different tools which have played a big role in reducing the number of errors among the nurses involved in this department. As per the study of NHS England (2016), Child care shown in most healthcare sectors nowadays is very different from what was experienced in the last 30 years. Davey, Sharma, Davey and Shukla (2019) explain that the reason for this is that the level of technology deployed in this depart has reduced the errors caused by the practitioners involved in child care. Most nurses involved in long working hours in the nursery department may tend to cause some errors due to tiredness. Still, with new medical technologies, the common procedures involved in the nurseries are made simple since new technology provides new techniques that enable the nurses to program what they need to do. The process continues automatically (Azzuqa, Makkar and Machut, 2021).

For instance, automated IV pumps can measure the dosage required to be given to the children, making it easy to change drip amounts and the dose the patient requires. Isaias, Sampson and Ifenthaler (2020) show that the presence of health care record keeping also helps reduce the number of errors made within the healthcare workplace more at the bedside because the data required is easily accessible; thus, no delay is expected within the healthcare environment. Regarding this, the quality of healthcare given to patients has increased due to new technology applied in the nurseries (Tanioka et al., 2021). Due to the presence of advanced technology in the

healthcare workplace, many institutes of medicine have provided huge support to the implementation of new technology in the nurseries since most of the information provided has nearly zero errors, and the health of the nurses in the nurseries, and health-related discipline are followed.

3. Methodology

3.1 The research design

In making this research successful, the research design is essential in determining the method to find the information required for the report. The research design aims to ensure that the study matches the research topic. It also helps ensure that the best analysis is done concerning the data collected in the research. The research design considered in this report is the qualitative research design. It involves using secondary data from different scholars and how they argue concerning the use of technology in nurseries within the healthcare workplace (Lake et al., 2020). This method is commonly used in collecting information due to its ease of use, covering huge information within a short period, and the conclusion different scholars have given concerning the research topic.

3.2 Data sources

For secondary data to be effectively used in this case, there have to be key sources for the data where the information will be collected. In this case, the sources where the data will be collected will be secondary literature which involves information that has been researched by other scholars concerning the use of technology in nurseries within the healthcare environment (Holtermann et al., 2020). These sources include books and journals containing the right information for the report. The main database where this information will be obtained freely will be google scholar, which contains millions of data concerning different aspects of the views of scholars. This will be the best data source for collecting the right information concerning the research topic since the information is readily available and covers many aspects and views concerning nurseries and the healthcare environment, unlike primary data, which will cover a small sample of information concerning the research topic.

3.3 Data analysis

After the research has been collected, the next aspect is analyzing the data collected to find the right one following the research topic. After the data collection concerning the use of technology in the healthcare workplace, specifically in the nursery department, the data will be analyzed using the content analysis method. This method of data analysis is mostly used when doing secondary data analysis, just like in the case study. Harolds and Hurst (2016) show that this method is important since it involves the research themes, different issues that are involved in the research, facts, and the ideas that have to be noticed in the report; this makes this method to be the best since it helps in the identification of key facts, the best ideas for the report, and the right themes for the report.

4. Analysis

Many healthcare workplaces have benefitted much from technology in the nursery department. The first thing experienced due to this new technology is that on-site childcare is seen as a win for everyone. Concerning the study done by Isaias, Sampson and Ifenthaler (2020), the presence of childcare facilities in different healthcare centres has brought a different look to the region since they feel of great value in the society, the employers have a great opportunity to provide the necessary care to the children, this provides a medium of motivation within the patients and the workers in the healthcare sector thus boosting growth and development in the sector due to the use of new technology (Gomez, Kagan and Fox, 2015). the second aspect is that the level of productivity within the department has increased due to the presence of new technology in this sector. The research which has been done in this field indicates that over 90 per cent of the mothers who take part in on-site childcare brought by new technology show a high level of concentration in taking care of their children as well as they are doing their daily work (Azzuqa, Makkar and Machut, 2021). The level of attention in the nursing department has increased due to the presence of new technology which has been applied. The third thing is that nurses have been empowered by flexibility. The presence of automatic machines in the nursery department has given the nurses time to do other activities since they can program the machines and continue doing other activities within the organization.

The use of mobile applications for data collection and easy communication has been facilitated due to the use of technology in the healthcare workplace (Holtermann et al., 2020). The use of new technology has enabled the nurses in the nursery to communicate and keep the records of the patients in a way that can be easily retrieved. The presence of mHealth has been considered to be the best way to increase the level of awareness in the areas which are geographically isolated; they get an opportunity to interact with the doctors concerning the health of their children and any issues which they will need to know (Lake et al., 2020).

Apart from mobile phone communication within the nurseries, there is also the presence of hotlines and proper use of voice response techniques. The use of technology in the healthcare sector seems to greatly impact the nurseries since doctors can voice responses to the patients concerning their health or that of their children (Flocks et al., 2013). This technology has been successful in the healthcare industry since it is a very sensitive sector. Most organizations usually use hotlines and mobile phone applications to link pregnant women to the right clinics where they will get the right nursery services and save delivery (Committee on Pediatric Workforce et al., 2015). the presence of new technology in the healthcare workplace is essential since it ensures that the delivery of babies is done correctly. The presence of new technology enables wider networking between patients and doctors.

Conclusion

Nursing technology has been of great importance in promoting the well-being of children (Tanioka et al., 2021). Automated IV pumps, portable monitors, smart beds for comfortable delivery, wearable devices, electronic health records, centralized command centres and mobile phone applications and telehealth tools are considered to be very important in nurseries. In the next few years, the sector will experience a great change since the number of errors will not happen from the nurses/doctors when they are doing their duties within the healthcare workplace (Yaginuma-Sakurai et al., 2020).

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