



The use of Technology in the Modern Healthcare Workplace: St Johns Medical Centre

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Table of Contents

Introduction.....	3
About St. Johns Medical Centre.....	3
Use of Contemporary Technology at St. Johns Medical Centre.....	3
Use of Healthcare Technology during COVID-19 at St. Johns Medical Centre.....	4
Digital Communication, Collaboration and Participation at St. Johns Medical Centre.....	6
Digital Identity, Wellbeing and Safety at St. Johns Medical Centre.....	6
Importance of Digital Literacy for Professional Career Development.....	7
Technical Proficiency and Data Handling at St. Johns Medical Centre.....	8
Conclusion.....	8
References.....	9

Introduction

The technological advancement is bringing changes in all the aspects of healthcare through digital tools and techniques (Dunn and Hazzard, 2019). The use of technology in modern healthcare is making the workplaces efficient and successful one (Grosios and Burbidge, 2018). In today's world, the pandemic of COVID-19 has accelerated the use of technologies and digital tools in every spheres of the life. The doctors along with healthcare professionals are incorporating the technological innovation in their workplaces to give better services to the patient along with the efficient one (Raftery and Powell, 2019). In this report, the use of modern healthcare technologies in the workplaces will be described by using the case study of St. Johns Medical Centre.

About St. Johns Medical Centre

The St. Johns Medical Centre is situated at Grantham, London. It is known for the highest quality and standards of services from the healthcare professionals and doctors. The St. Johns Medical Centre has incorporated the advanced technologies in their workplace, they have designed a very responsive and user-friendly website for making the tasks easier for the patients. In St. Johns Medical Centre, the staffs and doctors are believed in excellence and for achieving the excellency, they always stay up to date with the use of technologies in their healthcare practices (St Johns Medical Centre, 2021). Following the advancements in healthcare sector, the St. Johns Medical Centre has already started to work on artificial intelligence, 3D printing, cloud data storage and so on.

Use of Contemporary Technology at St. Johns Medical Centre

The use of technology in the modern healthcare is on the rise from the last decade. Technology is improving the healthcare services in many ways starting from diagnostic, administrative to care support (Free and Edwards, 2017). Hospitals and medical centres are enriching their services through incorporating digital tools and technologies at their workplace (Grosios and Burbidge, 2018). The technologies like artificial intelligence, big data analytics, 3D printing, virtual reality, cloud data storage, electronic prescription system etc. are making the life and process easier for the patients (Dunn and Hazzard, 2019). In UK, there are several healthcare hospitals and institutions which are providing modern healthcare facilities to all of the people and St. Johns Medical Centre is one of them (Raftery and Powell, 2019). The St. Johns Medical Centre has made it recognize as one of the best healthcare centres through having modern technologies and tools are in use. According to a statistic, it is found that people from all the age group uses at least

one technology in their modern healthcare services. The statistical graph is shown below based on the age group, which shows that the middle age group i.e., 18-29, 30-39, and 40-49 uses the modern technology most in their healthcare services (Spekowitz and Wendler, 2018). The illustration of the use of modern healthcare technology in daily life shows the importance of contemporary technology in healthcare sectors of United Kingdom.

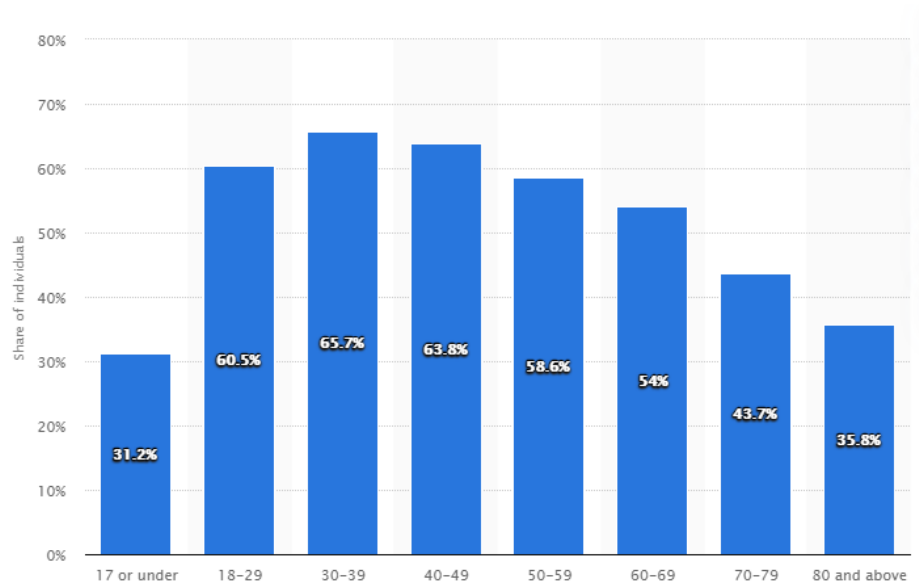


Figure 1: Use of contemporary technology in daily life by different age groups
Source: (Spekowitz and Wendler, 2018)

With the tagline of “Innovation for Affordable Healthcare”, the St. Johns Medical Centre is innovating newer technologies and implementing them in their healthcare services for the betterment of the people. St. John Medical Centre is well-equipped with the technology for the healthcare for people. It has technologies like hyperbaric oxygen therapy, da Vinci surgical system and cyber-knife along with other modern technologies like big data analytics, artificial intelligence and so on (St Johns Medical Centre, 2021). The commitment towards innovation and technology making the St. Johns Medical Centre one of the finest and best standards medical centres of United Kingdom.

Use of Healthcare Technology during COVID-19 at St. Johns Medical Centre

The importance and use of healthcare technologies are risen high during the COVID-19 as government imposed the lockdown measures and healthcare professionals have to provide services to the mass people. The e-consultation services used highly during the pandemic (Miller and West, 2019). According to a survey in UK regarding the healthcare technologies during COVID-19 found that, virtual care solutions are the most important service for the healthcare organizations. The research is basically conducted on 45 healthcare centres asking them which was the most important service during the COVID-19 on a scale of 5. As stated, the virtual care solutions were rated at 3.3 out of 5, where acute virtual care/e-ICU rate 3.2, electronic health records 3.1 and so on. The patient portals, remote patient monitoring, virtual scribes, healthcare analytics, revenue cycle management, self-triage tools, population health analytics, patient flow solutions, 3D printing etc. are some of trending and important healthcare technologies for the healthcare sector during the pandemic (Whitelaw and Van Spall, 2020). The concept of IoMT has been also emerged to ensure healthcare services during COVID-19. The IoMT is referred as the connected infrastructure of medical devices, health systems, health services, healthcare professionals and software applications (Dhanvijay and Patil, 2019).

(On a scale of 1 [least important] to 5 [most important])

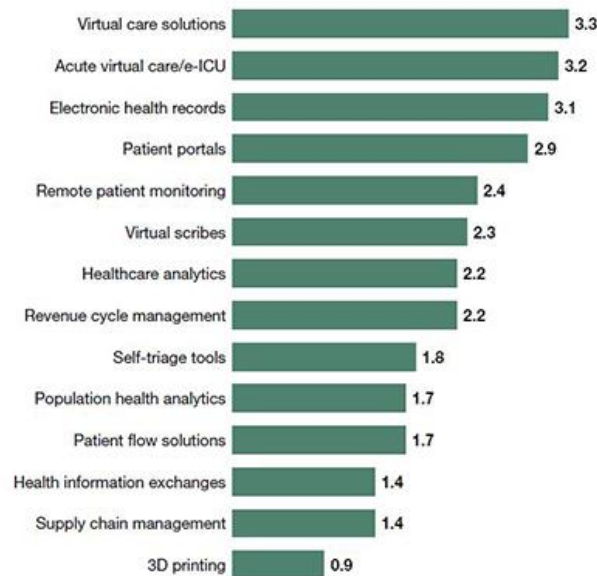


Figure 2: Important technologies in healthcare during COVID-19

Source: (Whitelaw and Van Spall, 2020)

Following the research, the St. Johns Medical Centre also used the virtual technology in their healthcare services because of not being able to provide physical services. The applications like ask my GP were highly used during the pandemic time by the patients. St. Johns Medical Centre

has encouraged the patients to go for online services by their website and applications. It has focused on 3D printing for contacting with the authority about requisitions and providing reports to the patients. The most used healthcare technology for St. Johns Medical Centre is the telemedicine as it provided the primary care to most of the people (St Johns Medical Centre, 2021). Providing the high quality and emergency treatment were necessary during the pandemic and thus St. Johns Medical Centre focused on the digital literacy of their staffs and healthcare professional as well (St Johns Medical Centre, 2021).

Digital Communication, Collaboration and Participation at St. Johns Medical Centre

To ensure efficient healthcare services, there has to be the use of digital communication, collaboration and participation tools and techniques. The digital communication in the workplace makes the communication process efficient and less time consuming (Finn and Bria, 2016). For example, through the digital communication technologies like video conferencing, social media involvement, online chat etc. make the workplaces dynamic (Mustafee and Probert, 2017). Moreover, to ensure collaboration and participation in the workplaces, the digital communication tools are valued highly as they provide real-time experience by staying at any part of the world. In the St. Johns Medical Centre, they have been using several tools like Skype, phone calls, What's App etc. for connecting with the patients and other staffs as well (Finn and Bria, 2016). According to a research in London, doctors are using the phone call and emails most for their communication purpose. They have been using phone call 89% of the time to connect with the colleagues and 84% time to connect with the patients (Ye, 2020). The emails are also being highly for communication with both colleagues, patients and pharma sales representatives. These show the use of digital communication, collaboration and participation technologies in modern healthcare workplaces.

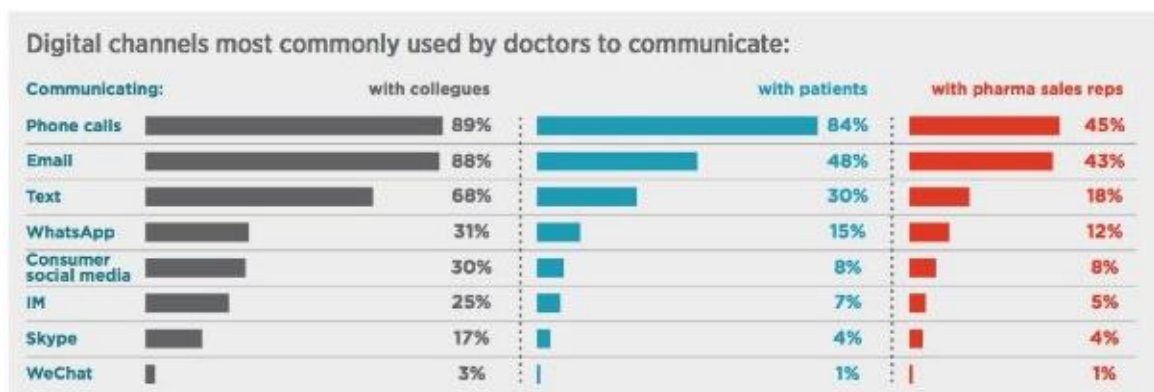


Figure 3: Use of digital communication channels
Source: (Ye, 2020)

Digital Identity, Wellbeing and Safety at St. Johns Medical Centre

The digital identity is needed to ensure for helping the healthcare centres with the patients' data. Digital identity helps in healthcare analytics and wellbeing of the patients (Dunn and Hazzard, 2019). Along with the growth in primary health care and diagnostic technological tools, there are several applications which teaches the relaxation and stress relief skills for the betterment of the patients focusing on wellbeing (Ballegaard and Kyng, 2018). The safety and privacy of customer records are also being ensured through using cyber security tools. Along with the patient's wellbeing and safety, the healthcare industry is trying to enhance the safety of the technological tools and techniques by building strong encryption system and other measures as well (Rafferty and Powell, 2019). The St. Johns Medical Centre has gone for partnership with an advanced technological firm to ensure the safety of patients' data and build cloud storage for keeping pace with the technological advancement. The medical centre is also giving free vaccinations services to the people through their website and NHS app (Dhanvijay and Patil, 2019).

Importance of Digital Literacy for Professional Career Development

Considering the pace and growth of technological development in healthcare sector, the healthcare professionals need to have degree of digital literacy (Ye, 2020). Digital literacy will not only improve their skills but also will make them efficient and better day by day. In the complex healthcare sector, the digital literacy is must for professional career development (Spekowius and Wendler, 2018). According to statistics of a group of healthcare professionals, the UK digital healthcare technology market is having a significant growth and by 2028 it will be at the peak of growth having the higher m-health proportions (Miller and West, 2019).

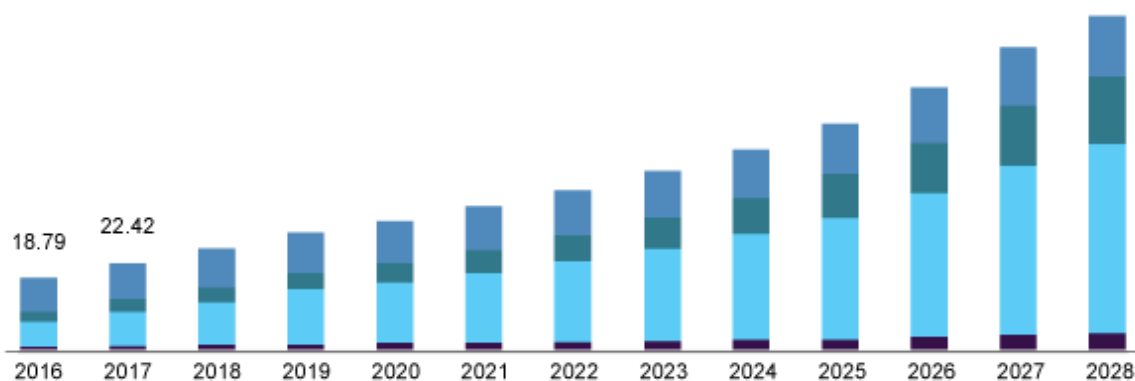


Figure 4: Expected growth of digital healthcare in UK
Source: (Miller and West, 2019)

The use of tele-healthcare, mHealth, healthcare analytics and digital health systems will see a high rise in future for which it is important for every healthcare professional to develop their digital

literacy skills for healthcare services (Ballegaard and Kyng, 2018). The St. Johns Medical Centre is providing different kinds of training programs for the healthcare professionals to stay up to date with the coming technological revolution.

Technical Proficiency and Data Handling at St. Johns Medical Centre

St. Johns Medical Centre has a bunch of skilled healthcare staffs and IT experts for technical proficiency and data handling in their medical centre. The medical centre has given their focus on developing a cloud storage where the necessary data and information of the patients will be stored for further use (St Johns Medical Centre, 2021). In the technological advanced healthcare sector, the technical proficiency and data handling will give immense support to the healthcare professionals to provide efficient healthcare services. It can urgently make the test report of patients and provide emergency medicines by using health analytics very easily (Mustafee and Probert, 2017). So, technical proficiency and data handling is having serious contribution in efficient healthcare services.

Conclusion

The dynamic change of healthcare sectors is calling for the digital literacy among all the health-related institutions and medical centre. The St. Johns Medical Centre believes in quality and high standard services for which is has already been implemented several technological tools and techniques in their healthcare services. The medical centre is looking forward to implementing more of the technological advancements in its medical and healthcare practices for the betterment of the citizens of UK.

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