

## The use of different technology in the modern healthcare workplace

[Care Homes]

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### Introduction

The purpose of this report is to know how to conduct a research step by step and to know how the use of different technology in the modern Care homes. It is well known that people in England are living more longer than they used to so this means many people are requiring health and social care support in many ways. Technology is changing the way we provide care and treatment. It's an ever-increasing presence in our daily lives. And yet, the one generation which has missed the revolutionary boat is perhaps the most in need of it: the elderly. The benefits of technology in care homes can be huge; supporting residents to be more independent, capturing valuable data, meeting outstanding CQC standards and generally improving the overall quality of care. Here's more about the advantages it brings. According to the NHS homecare for loved ones who are elderly or ill allows them to remain independent and have the support there when they need it. Technology can add to this

support through many different ways and it is becoming more common within households as a way to assist with caring for loved ones. It can create a safer living environment through remote monitoring, telehealth, medication management and home automation devices. Technology can play an important role in modern homecare with many benefits which are discussed below.

### The different use of modern technologies in the care homes

Modern care homes may use a variety of technologies to improve the quality of

care and enhance the living experience for residents. Moreover they always try to develop innovative solutions that can help the health sectors to organize themselves very well especially the care homes.

### Examples of Technologies are;

1. **Electronic Health Records**; are digital records of patient's health information that can be accessed by authorised healthcare providers. This documentation of residents' medical histories, medications and care plan.

2. **Remote Monitoring**; it allows healthcare providers to monitor residents' health status, vital signs, and activity levels remotely. Using medical devices, software, clinical investigation findings, or assessment tools, a patient is monitored remotely, enabling a care professional or service to schedule an outpatient appointment when it is necessary to manage the patient's condition.

3. **Personal Emergency Response System**: they are devices that allows residents to call for help in an emergency. These devices can be worn as pendant or bracelet and are equipped with a button that can be pressed to summon assistant.

4. **Medication management system**; Is use to help residents to manage them medications. These systems can include automated pill dispensers, medication reminders and electronics medication administration records. It makes it simple for employees to schedule, monitor, and track client medication administration online.

5. **Robotics**; Some care homes are starting to use robots to provide assistance with tasks such as cleaning, meal preparation, and medication delivery. These robots can help to reduce the workload of caregivers and improve the quality of life for residents.

Overall, these technologies can help to improve the quality of the care homes and

enhance the living experience for residents.

**6.The Blues Box;** It is the health case that measures vital signs, records photos, performs multiple assessments and questionnaires including NEWS2 which is the signs of illness are identified earlier, for a clinical response or care support. In this box you can find Blood pressure monitor, Pulseoximeter and Thermometer.

**7.Telehealth;** The word "telehealth" refers to the use of technology to provide medical services remotely. They have to do with products like virtual doctor visits, which let loved ones get medical attention while relaxing in their own homes. People with chronic diseases who might need frequent check-ins with their healthcare practitioner should pay particular attention to telehealth. They won't have to travel as much, and it guards against spreading diseases to others. Patients with mobility problems and those who reside in rural places can obtain the care they require while relaxing in the comfort of their own homes, which is especially helpful for them. By lowering emergency department visits and readmissions to hospitals, it can aid in lowering healthcare expenses. It enables medical staff to check in on patients and keep tabs on their health, which can help avoid unnecessary hospital stays. Access to care should be rapid and simple for patients in order to improve health outcomes. They have a higher propensity to follow their care programmes. Accessible, practical, and economical for both patients and medical professionals is telehealth.

**8.Medication Management;** Family members can now more easily control their meds thanks to technology. They can keep up with their meds with the aid of automated pill dispensers and alerts. Withdrawal symptoms and medical emergencies are less likely as a result.

Here are some instances of drug management technology:

Pillbox with a weekdays label.

A high-tech pill dispenser that beeps as a reminder would be extremely helpful for dementia sufferers.

As a watch alarm that vibrates to remind you to take your pills.

Both the carer and the person being cared for can benefit from this because the gadget can serve as a reliable medication reminder. It stops mistakes from being made when taking crucial medication.

**9.Home Automation;** Utilising internet-connected smart devices is a component of home automation. These gadgets can be managed using a computer, tablet, or smartphone. Your house's security and safety can be enhanced with home automation. To keep an eye out for intruders or to spot other dangers like smoke and carbon monoxide, smart cameras and sensors can be employed. If something strange occurs in your house, the alerts can let your loved one know so that prompt action can be taken. Your loved one's overall quality of life can be dramatically enhanced by technology. It is very helpful to families and those with chronic illnesses or physical disabilities. They are able to have greater independence and control over their own health care needs, which gives them the much-needed piece of mind.

**Research Interest;** People living in care homes may be experiencing other mental health issues such as loneliness and isolation. Here are some research ideas about the use of different technologies in care homes;

1] **Impact of wearable technology on the wellbeing of elderly residents;** This study can investigate the impact of wearable technology, such as smart watches or fitness trackers, on the physical health and mental wellbeing of elderly residents in care homes. The study can also investigate the potential of wearable technology to track and monitor vital signs, detect falls, and alert caregivers in case of emergencies.

2] **Effectiveness of telehealth in delivering healthcare services;** This study can evaluate how well older residents of nursing homes receive services thanks to telehealth innovations including video calling, remote monitoring, and telemedicine. The study can assess the telehealth services' affordability, usability, and patient satisfaction.

3]

**Problem statement;** Brexit leading a lot of staff coming from EU to work in the care homes. I think the government might find a solution about the Brexit not giving staffs the chances to work in the UK health sector. According to [Martha McCarey] and [Mark Dayan] in the year {2022} the Nuffield Trust has already examined declines in the number of EU workers in social care and nursing when examining the effects of Brexit on the UK workforce. Large manpower shortages in various professional fields have been an ongoing problem caused by a persistent lack of planning or strategy. The result of the Brexit vote has made them worse. For doctors, the situation has become increasingly complicated. The EU's population has largely stayed steady.

**Research idea;** Before you finish your degree in nursing, you may have to write a nursing research paper to show your expertise in a specific area of nursing. Nursing can be a broad field and require extra time to find an interesting research topic to choose. It's helpful to create what topic is the best choice for you. In this article, we discuss what a nursing research paper is, what to consider when choosing a nursing research topic and provide a list of potential research topics for a range of specializations.

For Example: Let talk about Staff Participation When talking about study participation in care facilities, staff members need to be taken into account because they may be motivated for a variety of reasons. This relates to earlier research on workforce support, leadership, effective teamwork, and communication that has been emphasised by scholars like Scott-Cawiezell (2005) in her work on maintaining change in leadership in care homes and Brownie and Nancarrow (2013) in their work on culture change and leadership. However, employee participation in research will be highly challenging for staff or by staff if staff lacks trust and is mistrusted in their function in the care facility as described by Higgs and Gilleard (2015).

**Methodology for my chosen research;** I used google chrome to do my research just to find out more about the use of the modern technologies used in a care home, also I read some books and some journal articles to find out more about what, how, when, where, who and how the doctors must used in the

care homes. There are also many different methodologies that can be used in care homes to improve the quality of a care provided to residents.

#### These methods are?

1] Person centered care; This is about individual needs and preferences of each residential. It involves building relationships with residents and their families, understanding their life history, and involving them in decision making about their care.

2] Montessori-based dementia programming; This methodology uses the principles of the Montessori to create a structured and engaging environment for resident with dementia.

3] Palliative care; This methodology focuses on providing comfort and support to residents who are nearing the end of their lives. It involves listening to and empathizing with the resident's feelings, rather than trying to correct their behavior or memories

4] Restorative care; This approach focuses on helping resident maintain or gain their physical and mental abilities. It involves individualized care plans that include exercise, therapy, and other activities to promote health and independence. These are some examples of the many methodologies that can be used in care homes and obviously it will depend on the needs of the individual residents and the goals of the care home.

**Sources;** In the studies with qualitative data, the most commonly described source of information for care home nurses were reference materials, followed by peers, computers, and physicians. Less commonly used sources of information were referring to their own clinical experience, patients or their families, patient records, basic nursing education, and continuing education. Few studies reported that nurses relied on supervisors or managers.

#### Conclusion

Even though nurses still rank peers as the number one source of information to support their clinical decisions, the results showed a shift to more formal information sources, like digital resources. Frequent use of formal information sources could not only aid in the development of professional nursing but could also help in implementing understanding EBP. Moreover, it is essential to improve healthcare

services and nurses' use of patients or families as sources of information, which could be an intrinsic part of EBP.

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