

Digital Skills and Research Methods(LCHS4002_LON)

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The purpose of this work is to explore the various technologies in the Modern Healthcare Workplace. The workplace chosen is a nursing home because it is little explored, and this age group always falls into oblivion, so it is good to know new techniques that can be applied at home to our family or friends that can give greater support to create a safer environment. Technology is an asset in all sectors of medicine and it would be no different in nursing homes. That is why it is constantly evolving with innovations not only to make the life of the patient but also of the staff easier. Working in nursing homes requires a lot of determination, patience, and especially delicacy because it is in contact with older, weak, and sensitive people, therefore, the treatment has to be differentiated, all for the benefit of the patient. technology has a very important role, bringing several benefits such as: Improving communication among care teams and residents, automating routine tasks and streamlining patient record access, providing efficient and effective care services using wearable devices and sensors, enhancing the health and well-being information exchange between patients and professionals and reducing loneliness and improving cognitive function using robots and games (online.walsh.edu,2022). Some examples of technology are discussed below:

Acoustic Monitoring

Acoustic monitoring uses devices that measure differences in the levels of noise in a resident's bedroom, to detect and alert staff to signs of:

- Choking or coughing
- Trying to get in/out of bed
- Unusual levels of restlessness
- A person asking for assistance
- Falls

Interactive Me

InteractiveMe is an interesting app that although not the most hi-tech or future-orientated innovation on my list, is one that is widely used in care homes, readily available, and not too much of a headache to implement from what I can tell.

InteractiveMe enables care homes to deliver occupational therapy services via a mobile/tablet-based app to their residents.

A session on InteractiveMe involves a range of 'interaction triggers' including personal photos, music, and stories all relating to the individual's life. It also features information about their favorite food, sports, and life histories. All to help the individual reconnect with who they are in an interactive, more gentle way.

As with reminiscence therapy, this kind of approach can be very effective for people with dementia or Alzheimer's. It can help people communicate, reduce anxiety, and challenging behavior, and encourage meaningful interactions and socializing.

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 care and enhance the living experience for residents.

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 do not 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 programs. Accessible, practical, and economical for both patients and medical professionals is telehealth.

Medication management system

Is used to help residents to manage their medications. These systems can include automated pill dispensers, medication reminders, and electronic medication administration records. It makes it simple for employees to schedule, monitor, and track client medication administration online.

The main reason providers implement digital medicine management systems is to simultaneously improve safety and make it easier, more efficient, and more reliable to manage medicine processes. Managing medicines using paper, or regular computer software that is not specifically designed for the job, leaves room for lots of risk. These could be risks caused by incorrect information, gaps in information, or parts of processes not being carried out or carried out properly. Managing medicines properly also creates a lot of admin when using paper or normal office software, to audit, and manage stock, records, and so on. Medicine management software ties up loose ends, uses automated alerts and process management, and has lots of other useful features to make medicines safer in your care service and reduce, or completely eliminate medicine errors.

Personal emergency response system

They are devices that allow residents to call for help in an emergency. These devices can be worn as pendants or bracelets and are equipped with a button that can be pressed to summon an assistant.

Electronic health records

Are digital records of patient's health information that can be accessed by authorised healthcare providers. This documentation of the resident's medical histories, medication, and care plans.

Home automation

Utilizing 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 ones' 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 healthcare needs, which gives them the much need piece of mind.

Circadian Lighting

Improved lighting can help reduce hazards in a care home, but studies have shown that light that mimics people's natural circadian rhythms (or more accurately mimics our natural exposure to sunlight) can have a big impact on everything from mood and behavior to how frequently people fall. This is especially true in people who have dementia or Alzheimer's. Circadian lighting, or adaptive lighting' mimics the body's natural circadian rhythms by changing the intensity and forms the wavelength and color of light that are used at different times of the day. These can have a substantial impact on everyone's mental and physical health but are proving especially effective in care homes and nursing homes.

Care home auditing software enables you to approach the whole process of quality improvement in a systematic, structured, reliable, and easier-to-manage way. First with your audits, then the action planning process, and then the necessary overview of which actions have been completed and what the results were.

In short, all these modern technologies mentioned above make a difference and improve the quality of life of patients in nursing homes. However, it is a little difficult all these technologies the staff adapt, so the investment in training is necessary; Scary because being very independent could replace some jobs.

References

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[Quick Guide: Technology In Care Homes \(www.nhs.uk\)](#)