

Certificate of Higher Education in Health and Social Care

Digital Skills and Research Methods

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Assessment 2

Technology has become an integral part of the modern healthcare workplace, including care homes for elderly. Care homes are facilities that provide a homelike environment for individuals who are unable to live independently due to physical or cognitive limitations. The use of technology in care homes is to improve the quality of care and life to residents and increase efficiency and productivity for healthcare providers.

Examples of how technology is being used in care homes include:

1. Electronic medical records: Care homes are using electronic medical records to keep track of resident's health information and to communicate with other healthcare providers.
2. Telemedicine: Care homes are using telemedicine to allow residents to see a doctor or other healthcare provider remotely, using videoconferencing or other technologies.
3. Fall prevention: Care homes are using technology to prevent falls by residents, such as sensors that can detect when a person is at risk of falling and alert caregivers.
4. Communication aids: Care homes are using communication aids, such as tablets or specialized software, to help residents who have difficulty communicating with others.
5. Assistive technology: Care homes are using assistive technology to help residents with disabilities or mobility issues, such as motorized wheelchairs or devices that can be controlled using voice commands.

Electronic medical records (EMRs) are digital versions of the paper-based medical records that have traditionally been used by healthcare providers. They typically include a patient's medical history, medication, treatment plans and other important information. In care homes, EMRs can be used to document the care and treatment of residents and to share information with other healthcare providers.

One benefit of using EMRs in care homes is that they can help to improve the quality and safety of care by providing a comprehensive and up-to-date record of resident's health. They can also help to reduce the risk of errors, such as prescribing the wrong medication or administering the wrong treatment, by providing clear and accurate information about a resident's care plan.

Another benefit of EMRs is that they can help to improve the efficiency of care delivery by enabling care home staff to access and update a resident's medical record quickly and easily. This can be especially helpful in an emergency situation when time is of the

essence.

Overall, EMRs can be a valuable tool for care homes in helping to provide high-quality, safe, and efficient care to their residents.

Use of modern technology in care home

Telemedicine is the use of telecommunication and information technologies, such as videoconferencing and remote monitoring, to provide clinical health care services remotely. This can include consultations with healthcare providers, medication management, and monitoring of vital signs and other health indicators. Telemedicine can be particularly useful in care homes where residents may have multiple chronic conditions and require ongoing medical care and monitoring.

This can be particularly beneficial for residents with mobility issues or those who are at high risk for exposure to COVID-19. Telemedicine can also help to reduce that workload for care home staff, as they provide assistance with technology and facilitate the visits.

There are several benefits to use telemedicine in care homes. It can help to reduce the number of unnecessary hospitalizations, which can be disruptive and stressful for residents. It can also help to reduce the burden on the healthcare system by enabling residents to receive care in the comfort of their own homes. Telemedicine can also be a convenient and cost-effective way for residents to access the healthcare services, as it eliminates the need of transportation and can be done from comfort of their own rooms.

Overall, telemedicine can be a valuable tool for improving the delivery of healthcare services in care homes and helping residents to manage their health.

Falls prevention in care homes is an important issue because falls can cause serious injuries, especially in older adults. There are a few steps that care homes can take to prevent falls:

- Assess the risk of falls: Care homes should assess the risk of falls for each resident and develop a plan to address and identified risk.
- Make the environment safe: Care homes should ensure that the environment is safe by removing tripping hazards and making sure that handrails and other assistive devices are good repair.

- **Encourage physical activity:** Regular physical activity can help to improve balance and reduce the risk of falls. Care homes should encourage residents to be physically active and provide opportunities for them to do so.
- **Medication management:** Care homes should ensure that residents are taking the correct medications and that medication are not contributing to the risk of falls.
- **Education:** Care homes should educate staff, residents, and families about fall prevention strategies and the importance of reporting falls.

Communication aids are devices or technologies that can assist people with communication disabilities in care homes or other settings. These aids can help individuals express their needs, wants, and thoughts, and can facilitate social interaction and participation in activities. Some examples of communication aids include:

- **Picture or symbol boards:** These are boards with images or symbols that represent different actions, objects, or concepts. The person can point to the appropriate symbol to communicate their needs or desires.
- **Speech-generating devices:** These are electronic devices that allow the person to select pre-recorded words or phrases, or to input text that is then spoken aloud.
- **Augmentative and alternative communication (AAC) software:** This type of software can be installed on computer or tablet, and allows the person to communicate through text, symbols, or pictures.
- **Sign language:** Some individuals may use sign language as a means of communication, either as their primary mode of communication or in conjunction with other aids.

It is important to note that communication aids should be tailored to the individual's specific needs and abilities and should be used in conjunction with other forms of communication and support, such as verbal or written language, gestures, and facial expressions.

Assistive technologies are devices or software that are designed to help individuals with disabilities or impairments to perform everyday tasks. In care homes, assistive technologies can include things like hearing aids, adapted computer software, and mobility aids. Assistive technologies can help residents to maintain their independence and improve their quality of life. For example, a hearing aid can help a resident with hearing loss to communicate more effectively, while adapted computer software can allow a resident with visual impairments to access information and communicate with others.

There are also several other ways that technology is being used in care homes, including:

- Virtual reality (VR) and augmented reality (AR) can be used to provide recreational and therapeutic activities for residents. VR and AR can help to stimulate the senses and provide social and cognitive stimulation, which can be beneficial for residents with cognitive impairments.
- Sensors and wearable devices can be used to monitor the health and well-being of residents. These devices can track things like sleep patterns, physical activity, and vital signs, and provide alerts if there are any concerns.
- Robotics and artificial intelligence (AI) are being explored as a means to assist with tasks such as medication management and basic care tasks. While these technologies are still in the early stages of development, they have the potential to improve efficiency and reduce the workload for care home staff.

Overall, the use of technology in care homes has the potential to improve quality and life for residents. While there are some challenges to implementing technology in care homes, such as the need for training and potential privacy concerns, the benefits are significant and are likely to continue to grow as technology advances.

Research about care homes:

The quality of care in care homes can vary greatly. Some key factors that can impact the quality of care in care homes include staffing levels, training, and the provision of care services.

Staffing levels: Having sufficient staff can help ensure that residents receive timely and appropriate care. Care homes with low staffing levels may struggle to provide adequate care to residents, which can lead to negative outcomes such as falls, pressure ulcers, and other health problems.

Training: Care home staff should be properly trained in order to provide high-quality care. This may include training in areas such as infection control, medication management, and dementia care.

Provision of care services: Care homes should provide a range of care services to meet the needs of residents. This may include personal care, help with mobility, and assistance with medication. Care homes should also have systems in place to identify any changes in a resident's condition and to provide appropriate care in response to those changes.

Quality of life for residents in care homes is an important consideration. There are a few key areas that can impact the quality of life for residents in care homes:

- Social and recreation activities: It's important for care homes to offer a variety of social and recreational activities for residents to participate in. This can include things like group outings, and craft activities.
- Nutrition: Care homes should provide well-balanced meals for residents and consider any dietary restrictions or preferences.
- Physical environment: The physical environment of the care home can also impact the quality of life for residents. This includes things like the cleanliness and maintenance of the facility, as well as the layout and design of the space.

Overall, it's important for care homes to prioritize the needs and preferences of their residents in order to enhance their quality of life.

Staff burnout and turnover can have serious negative consequences for the quality of care provided in care homes.

Burnout can lead to decreased job satisfaction, increased absenteeism, and higher risk of mistakes and accidents, while high levels of turnover can disturb the continuity of care and make it difficult to maintain a stable and experienced workforce.

Possible causes of burnout and turnover in care homes include:

- Heavy workload and time pressure
- Lack of support and resource
- Poor working condition
- Lack of control over work
- Conflicting demands of expectations
- Insufficient recognition or appreciation

To address these issues, care homes can implement a range of strategies:

- Providing adequate staffing levels to ensure that caregivers have time and support they need to provide high-quality care.
- Offering training and professional development opportunities to help caregivers develop new skills and feel more competent and confident in their roles.
- Promoting work-life balance and offering flexible work arrangements where possible.
- Encouraging open communication and allowing caregivers to provide input and feedback on working condition and policies.
- Recognizing and rewarding the contribution of caregivers through regular feedback, praise, and other forms of appreciation.

As for intergenerational interactions, these can be a powerful source of support and enrichment for both older adults and younger generation. Positive intergenerational interactions can help to combat loneliness and social isolation, promote mental and physical well-being , and foster a sense of community and belonging.

To facilitate positive intergenerational interactions in care home ,staff can :

- Encourage and facilitate opportunities for residents and younger people to interact, such as through intergenerational activities or programs
- Provide support and guidance to help residents and younger people to communicate and connect with each other
- Promote an inclusive and respectful environment that values the diversity of experience and perspectives of all generations
- Educate residents, staff and younger people about benefits of intergenerational interactions and how to make them meaningful and enjoyable for all involved.

Intergenerational interactions, or interactions between people different ages, can be beneficial for both younger and older individuals. Some benefits of intergenerational interactions in care homes include:

- Improve socialization: interaction with people of different ages can help residents feel more connected and engaged with the community
- Enhanced cognitive function: research has shown that social interactions can improve cognitive function in older adults which can help prevent or delay the onset of age- related conditions such as dementia
- Increased sense of purpose: Intergenerational interactions can provide a sense of purpose and meaning for older adults , particularly those who may isolated or lonely
- Enhanced well being: positive social interactions can improve mood and overall well-being for both younger and older individuals.

References:

- Bell J.,7th edition 2018. Doing Your Research Project;A Guide for the first time researchers

- Chunara, R., Zhao, Y., Chen, J., Lawrence, K., Testa, P.A., Nov, O. and Mann, D.M., 2021. Telemedicine and healthcare disparities: a cohort study in a large healthcare system in New York City during COVID-19. *Journal of the American Medical Informatics Association*, 28(1), pp.33-41.
- Kshetri, N., 2018. Blockchain and electronic healthcare records [cybertrust]. *Computer*, 51(12), pp.59-63.
- Majumdar, A.K., 2019. Potential applications for broadband global Internet connectivity. In *Optical Wireless Communications for Broadband Global Internet Connectivity* (pp. 259-268). Elsevier.
- Majumdar, A.K., 2019. Potential applications for broadband global Internet connectivity. In *Optical Wireless Communications for Broadband Global Internet Connectivity* (pp. 259-268). Elsevier.
- Voice output communication aids
- <https://www.livingmadeeasy.org.uk> 2022
- Kamsu-Foguem, B., Tiako, P.F., Fotso, L.P. and Foguem, C., 2015. Modeling for effective collaboration in telemedicine. *Telematics and Informatics*, 32(4), pp.776-786.
- <https://enrich.nihr.ac.uk/blogpost/the-importance-of-research-into-care-homes>