



Digital transformation in health and care professionals

[BHMP6026]

Component 1: Written Report

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Introduction:

On this report I am going to talk about Digital therapeutics in NHS

Digital therapeutics (DTx) are software-based medical interventions that help prevent, treat, or manage certain diseases. Unlike regular wellness apps, DTx are evidence-based and often validated through clinical trials. They can be prescribed by healthcare professionals and integrated into the care pathway (National Institute for Health and Care Excellence (NICE), 2022).

In the UK, the National Health Service (NHS) is encouraging the use of digital technologies to make healthcare more accessible, boost patient independence, and ease the pressure on health services. Digital therapies are being used in several areas, including mental health, diabetes, insomnia, and chronic diseases. For example, some apps offer cognitive-behavioural therapy (CBT) programs, personalized symptom tracking, or treatment reminders. These tools help patients actively take part in their care while staying connected with healthcare professionals (NICE, 2022).

The NHS evaluates digital therapeutics according to strict criteria for safety, clinical effectiveness, data protection, and cost-effectiveness before adopting them. This approach ensures that digital solutions meet the same quality standards as conventional treatments. Digital therapeutics, therefore, act as a complement to traditional care without replacing the patient-health professional relationship. They help make medicine more personalized, more accessible, and more focused on patients' needs (NHS England, 2023)

Digital therapeutics (DTx) are a promising innovation for improving care for people with diabetes and mental health issues. For diabetes, they allow continuous blood sugar monitoring, tracking of eating habits and physical activity, and sharing data with healthcare professionals. With treatment reminders and personalized recommendations, they help people stick to their treatment and manage their condition more independently. Studies show that these tools can improve blood sugar control and reduce long-term complications (World Health Organization (WHO), 2021).

In mental health, digital therapies offer quick access to evidence-based interventions, like cognitive-behavioural therapy (CBT), mindfulness exercises, and symptom tracking. They also help reduce barriers related to distance, cost, or the availability of healthcare professionals. These digital solutions can complement traditional care by providing ongoing support between appointments. Using them helps improve patients' quality of life, boost their independence, and make healthcare services more accessible and effective (WHO, 2021).



Impact on work force:

The integration of digital therapeutics into the National Health Service (NHS) is bringing big changes to the roles of healthcare professionals. Doctors, nurses, pharmacists, and other caregivers are no longer just prescribing traditional treatments they also must evaluate, recommend, and monitor the use of digital solutions that fit patients' needs. This shift calls for new digital health skills, like getting comfortable with digital platforms, interpreting patient-generated data, and keeping health information secure (Topol, 2019).

Nurses play a key role in supporting patients who use these technologies. They provide therapeutic education, explain how digital apps work, monitor treatment adherence, and help patients with technical issues. Doctors, on the other hand, use the data gathered by digital tools to customize treatments and improve clinical decision-making (Health Education England, 2019).

Moreover, the development of digital therapeutics promotes closer collaboration between healthcare professionals, IT specialists, and medical software developers. This multidisciplinary approach helps improve the quality of care while ensuring the safety and effectiveness of digital solutions. However, this transformation requires investment in ongoing training, hiring professionals with digital skills, and adapting healthcare organizations to effectively integrate these innovations into clinical practice. So, changes in professional roles are a key factor in ensuring the success of digital therapeutics and providing more personalized, coordinated, and patient-centred care (Robertson et al., 2022).

The adoption of digital therapeutics in the healthcare system requires professionals to update their skills to meet the new demands of digital care. Doctors, nurses, and other healthcare workers need to gain knowledge in digital health, health data analysis, cybersecurity, and using digital tools to effectively support patients (Organisation for Economic Co-operation and Development (OECD), 2023).

Moreover, professionals need to develop digital communication skills to provide remote follow-up, interpret the information shared by patients, and encourage their engagement in managing their illness. The ability to integrate data from health apps into clinical decision-making is also becoming essential for providing personalized care and improving health outcomes (European Commission, 2024).

Ongoing training is therefore essential to help care teams adapt to these new practices. Healthcare facilities need to invest in developing digital skills and promote interprofessional collaboration between clinicians, IT specialists, and data experts. Strengthening these skills helps ensure safe and effective use of digital therapies while improving the quality of care and patient experience (OECD, 2023).

The integration of digital therapeutics is changing the way healthcare services are delivered by improving access to care, continuity of monitoring, and treatment personalization for people with diabetes and mental health issues. With mobile apps, remote monitoring platforms, and connected devices, healthcare professionals can track patient data in real time, quickly spot changes in their health, and adjust interventions accordingly (International Diabetes Federation (IDF), 2022).

For people living with diabetes, digital therapeutics make it easier to monitor blood sugar, track diet, physical activity, and treatment adherence. This approach helps improve blood sugar control and reduce the risk of complications. In mental health, remote consultations, digital cognitive-behavioural therapy programs, and symptom tracking tools provide quicker access to care, especially for people living in areas where specialized services are limited (World Psychiatric Association, 2021).

These innovations also help support a more proactive, patient-centred approach by boosting patients' autonomy and involving them more in decisions about their health. However, putting them into practice requires reliable digital infrastructure, strict protection of personal data, and proper training for healthcare professionals.

When properly integrated with traditional care, digital therapies improve the quality, efficiency, and accessibility of services for people with diabetes and mental health issues (IDF, 2022).

The integration of digital therapeutics is changing the daily organization of healthcare services by making care more continuous, coordinated, and patient centred. Health professionals now use digital platforms to view patients' clinical data, provide remote follow-ups, and communicate more quickly with members of the multidisciplinary team. This evolution reduces the need for in-person visits when they aren't essential and allows for faster intervention if a patient's health condition worsens (World Health Organization (WHO), 2024).

In caring for people with diabetes, data from connected glucose meters and mobile apps are analysed daily to adjust treatments and prevent complications. In mental health, digital tools make it easier to regularly track symptoms, hold virtual consultations, and send reminders that help patients stick to their treatment. These changes improve continuity of care, make better use of healthcare professionals' time, and boost patients' independence (World Health Organization, 2021).

However, these new practices require adapting work processes, ongoing team training, and a secure digital infrastructure. Efficient integration of digital therapeutics can thus improve the quality of daily services while meeting the growing needs of patients with chronic illnesses and mental health issues (WHO, 2024).

Impact on the patients:

Digital therapeutics have a significant impact on patients by boosting their involvement in managing their health and making access to care easier. With mobile apps, connected devices, and remote monitoring platforms, people with diabetes can track their blood sugar, get medication reminders, and receive personalized advice. This approach encourages better treatment adherence, improved disease control, and a lower risk of long-term complications (American Diabetes Association (ADA), 2024).

For patients dealing with mental health issues, digital therapies provide quicker access to interventions like online cognitive-behavioural therapy, symptom tracking, and remote consultations. These tools help cut down waiting times, improve continuity of care, and boost patients' autonomy in managing their health. They can also help reduce feelings of isolation by keeping regular contact with healthcare professionals (National Institute of Mental Health (NIMH), 2023).

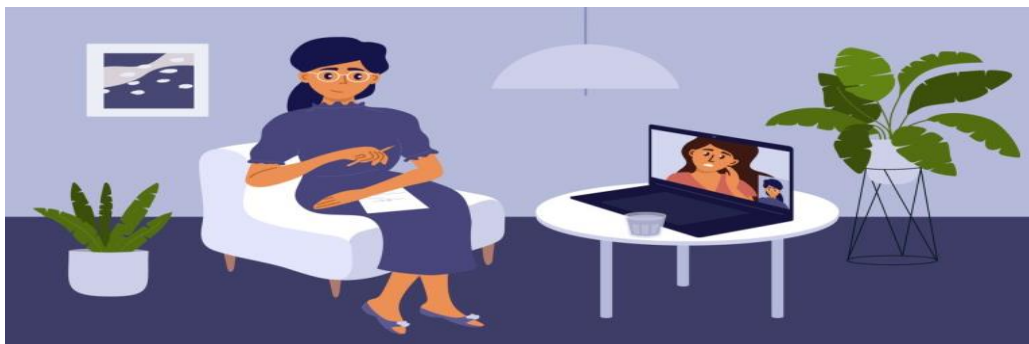
However, the benefits of these technologies depend on several factors, including patients' digital skills, access to the Internet, and the protection of personal data. Proper support and training in using digital tools are essential to ensure effective and fair use. When integrated into traditional care, digital therapeutics help improve quality of life, patient satisfaction, and clinical outcomes, while also promoting more personalized care focused on each person's needs (ADA, 2024).

Digital therapeutics influence patients' perception and experience by changing the way they access care and get involved in their treatment. For people with diabetes and mental health issues, these technologies provide faster access to services, continuous monitoring, and better

communication with healthcare professionals. This accessibility boosts their sense of control over their condition and encourages active participation in decisions about their treatment (Organisation for Economic Co-operation and Development (OECD), 2023).

Patients often see digital tools to boost their independence. Tracking apps let them check their health data, get treatment reminders, and follow their daily progress. In mental health, digital platforms offer support anytime, which can help lower barriers linked to stigma or transportation issues. This availability makes the care experience better and leads to higher user satisfaction (World Health Organization (WHO), 2021).

However, patients' perceptions aren't all positive. Some people might have trouble using technology because of low digital skills, lack of internet access, or concerns about the privacy of their personal data. These factors can limit their trust in digital tools and lower their engagement in care. That's why it's important for healthcare professionals to provide proper guidance, clear information, and technical support to ensure a positive experience. An inclusive implementation of digital therapies can improve care quality, patient satisfaction, and their involvement in managing their health (OECD, 2023).



Impact on community

Digital therapeutics have a big impact on the community by improving access to care and reducing health inequalities. For patients with diabetes and mental health issues, they allow for remote monitoring, faster access to healthcare professionals, and better continuity of care. People living in rural areas or who have trouble getting around can get quality care without having to visit a healthcare facility often. This approach helps improve clinical outcomes and patients' quality of life (Nuffield Trust, 2022).

When it comes to where services are provided, digital therapeutics are changing the way care is organized. Hospitals, general practitioners' offices, and community health centres can handle some follow-up remotely through virtual consultations and digital platforms. This shift eases the pressure on healthcare services, cuts down on non-urgent in-person visits, and lets professionals spend more time with patients who need complex care (King's Fund, 2023).

However, these benefits depend on fair access to digital technologies. Older people, disadvantaged populations, or those with limited internet access might have trouble using them. So, it's important to invest in digital infrastructure, user training, and patient support to make sure digital therapies are adopted inclusively. Doing this effectively strengthens local services, promotes health equity, and improves the management of chronic diseases in the community (King's Fund, 2023).

Digital therapeutics have positive effects on family members, care co-production, and public health. For families of people with diabetes or mental health issues, these technologies make it easier to monitor the patient's health and improve communication with healthcare

professionals. Health apps allow loved ones to encourage treatment adherence, support lifestyle changes, and take a more active role in care, which can reduce caregiver stress and improve outcomes for the patient (National Academies of Sciences, Engineering, and Medicine (NASEM), 2022).

Digital therapeutics also support co-production of care, meaning a collaboration between the patient, their family, and healthcare professionals. Patients can share their health data in real time, take part in decisions about their treatment, and set care goals together with the care team. This approach boosts patient autonomy, improves communication, and leads to care that's more focused on their needs (Agency for Healthcare Research and Quality (AHRQ), 2023).

At the public health level, anonymized data from digital tools help track chronic diseases better, identify the needs of populations, and plan health services. They also support prevention, screening, and health promotion strategies. However, their use must follow strict standards for data privacy and security to maintain public trust and ensure these technologies are used ethically (AHRQ, 2023).

Conclusion:

Digital therapeutics are an important innovation in caring for people with diabetes and mental health issues. They make healthcare more accessible, support personalized follow-ups, and help patients take a more active role in managing their health.

These technologies complement traditional care by making communication between patients, families, and healthcare professionals easier. Despite some challenges related to access, digital skills, and data protection, gradually integrating them into health systems provides an opportunity to improve the quality, efficiency, and fairness of services.

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