
Digital Health Technologies: Adoption, Challenges and Training Needs



The integration of digital health technologies (DHTs) has become a defining aspect of modern healthcare, significantly transforming clinical practices and patient management. Electronic health records (EHRs), mobile health applications and remote monitoring systems have contributed to improvements in patient care, diagnostic precision and operational efficiency. However, despite their growing presence in healthcare settings, several challenges hinder their full potential. The lack of adequate infrastructure, technical support deficiencies and gaps in training pose significant obstacles to their seamless adoption.

A recent study involving 500 healthcare professionals sought to assess the utilisation, perceived benefits and barriers associated with DHTs. The findings revealed that while these technologies are widely used, their effectiveness is often undermined by software issues, network instability and a general lack of training. Addressing these barriers is essential to ensuring that digital health solutions contribute effectively to healthcare delivery. Without a structured approach to training and implementation, the benefits of digital transformation in healthcare may not be fully realised.

Adoption Trends in Digital Health

The study identified distinct trends in the adoption of digital health technologies across different healthcare settings. Mobile health applications emerged as the most commonly used technology, with 44.4% of respondents incorporating them into their professional routines. These applications are widely regarded as user-friendly, accessible and adaptable to a variety of clinical tasks, which may explain their popularity among healthcare professionals.

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Electronic health record (EHR) systems and diagnostic tools were the next most frequently utilised technologies, with 33.3% of respondents reporting their use. EHR systems have been recognised for their role in improving healthcare documentation, streamlining patient records and facilitating data-driven decision-making. Similarly, diagnostic tools have demonstrated their value in enhancing clinical accuracy and expediting diagnostic processes.

Despite the widespread adoption of these technologies, certain digital solutions remain underutilised. Remote monitoring systems, for instance, saw little to no usage among respondents, and SMS-based health interventions were reported by only 3.7% of participants. These findings suggest that while some digital tools have successfully integrated into clinical practice, others face barriers to adoption. Factors such as technological limitations, financial constraints and varying levels of awareness may contribute to the disparity in utilisation rates.

The study further revealed that while 63% of respondents reported an improvement in healthcare efficiency due to DHTs, significant barriers remain. Among these, software reliability and network connectivity were frequently cited as issues that negatively impact the user experience. Without addressing these challenges, the full potential of digital health technologies may not be realised in clinical practice.

Barriers to Effective Implementation

Although digital health technologies offer numerous advantages, their implementation is not without challenges. One of the most significant barriers identified in the study was insufficient training. A substantial 63% of respondents indicated that they had received only minimal training in the use of DHTs, and 25.9% reported receiving no training at all. Without the necessary skills and knowledge, healthcare professionals may

struggle to integrate these technologies into their workflows effectively.

Technical difficulties were another major concern, with 51.9% of respondents citing software glitches and connectivity issues as significant obstacles. These problems can disrupt workflows, increase administrative burdens and reduce confidence in digital tools. Additionally, financial constraints pose another challenge, as 33.3% of respondents reported that the high costs associated with implementation hinder widespread adoption. The financial burden of acquiring and maintaining digital health solutions can be particularly pronounced in resource-limited settings, where funding for healthcare technology is often restricted.

These findings underscore the need for targeted interventions aimed at improving the usability, affordability and accessibility of digital health technologies. Without sufficient investment in infrastructure and training, the integration of DHTs into clinical practice may remain uneven, with certain technologies remaining underutilised despite their potential benefits.

Addressing Training and Infrastructure Gaps

The effectiveness of digital health technologies is closely linked to the level of training provided to healthcare professionals. The study found that only 7.4% of respondents felt adequately trained in the use of these tools, highlighting a critical gap in professional development. A lack of structured training can lead to hesitancy in adopting new technologies, reduced efficiency in their use and even resistance to change within healthcare settings.

To address this gap, healthcare institutions must prioritise comprehensive training initiatives that equip professionals with the necessary digital competencies. These may include dedicated training workshops, hands-on learning opportunities and continuous professional development programmes focused on digital health solutions. Ensuring that healthcare professionals receive proper guidance on the functionalities and best practices for using DHTs will be key to maximising their impact.

Beyond training, investments in technological infrastructure are also required to support the effective adoption of digital health solutions. Persistent software issues and network instability, as reported by more than half of the survey respondents, highlight the need for reliable technical support and system improvements. Strengthening IT support frameworks and enhancing system stability will be essential in fostering a more seamless digital experience in healthcare.

By addressing both training deficiencies and infrastructure limitations, healthcare organisations can improve the usability and effectiveness of digital health technologies. These efforts will not only enhance the efficiency of healthcare delivery but also ensure that professionals can utilise these tools to their full potential in clinical practice.

The growing reliance on digital health technologies has the potential to revolutionise healthcare, but several challenges must be addressed to optimise their impact. Mobile health applications, electronic health records and diagnostic tools have already demonstrated their value in enhancing efficiency and patient care, yet barriers such as inadequate training, technical difficulties and financial constraints hinder their broader implementation.

The findings from this study highlight the critical need for structured training programmes to improve healthcare professionals' digital competencies. A lack of sufficient training can limit the effectiveness of these technologies, reducing their practical benefits and slowing their adoption. Furthermore, investments in technical support and infrastructure improvements are essential to mitigating software and connectivity issues, ensuring that digital solutions function smoothly in real-world healthcare environments.

Ultimately, digital health technologies can significantly enhance patient care, streamline clinical workflows and improve healthcare efficiency. However, their success depends on overcoming key challenges related to training, infrastructure and affordability. By addressing these issues, healthcare systems can fully leverage digital transformation to deliver high-quality care and achieve operational excellence in an increasingly digital world.

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