

The frequency of synchronisation errors mean that it is not feasible to use commercially available WAT for remote monitoring of patients and caution is needed if the results are used to guide clinical intervention, rather than simply offer lifestyle advice.

## 6 A NATIONAL SURVEY OF THE CURRENT PROVISIONS, PERCEPTIONS AND CHALLENGES REGARDING DIGITAL HEALTH EDUCATION IN THE UK MEDICAL UNDERGRADUATE CURRICULUM

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**Objective** Digital health (DH) is the integration of technologies to tackle challenges in healthcare. Its applications include mobile health, remote & wireless healthcare, artificial intelligence, and robotics. Digital technologies are increasingly being used to deliver routine care, whilst simultaneously patients are increasing their uptake of DH solutions (e.g. wearables).

With the adoption of DH increasing across the NHS, there is a growing need for a digitally literate workforce. However, there are no national standards on DH education for UK medical students. Consequently, this study sought to assess the current provisions, perceptions and challenges regarding DH education in the undergraduate medical curriculum.

**Methods** An anonymous cross-sectional online survey was developed following a literature search and by collecting iterative feedback from both researchers and external collaborators. The survey consisted of questions in 6 areas: (a) understanding of DH; (b) existing provision of DH education; (c) interest in DH education; (d) preferred means of delivering and assessing DH education; (e) impact of the COVID-19 pandemic on DH; and (f) demographic information.

The survey was administered via Qualtrics from March to October 2021, and disseminated to UK medical students via university mailing lists, social media and student representatives. Quantitative and qualitative data were collected pertaining to demographics, attitudes, preferences, and current provisions regarding DH education. Qualitative responses underwent thematic analysis. For quantitative analysis, R (version 3.5.0) and R Studio (version 1.1a) were used.

**Results** 514 complete responses were received from 39 UK medical schools in 2021. 57.2% of respondents were female, with a mean age of  $22.9 \pm 3.2$ . 65.8% of students considered DH 'extremely important' to future clinical practice, particularly the domains of electronic patient records, telehealth and smartphone applications. However, only 18.1% felt aware of the DH competencies required in clinical medicine. 70.2% of students reported receiving some DH education, with the highest proportion being in the form of lectures or seminars (30.5%,  $n=157$ ), e-learning modules (28.6%,  $n=147$ ) and ad hoc teaching during clinical placements (22.8%,  $n=117$ ). However, only 25.7% felt satisfied with these provisions. Themes for student satisfaction related to a practical teaching approach, delivery of content appropriate for their training stage and coverage of topics in student interest. Conversely, student dissatisfaction originated from inadequate teaching, and subsequent fears of falling behind. 56.1% preferred DH education to be mandatory rather than elective, ideally

through hands-on workshops (75.8%) and lectures and seminars (60.4%). 65.4% thought DH proficiency should be assessed in some capacity, of which 75.6% preferred formative assessment.

**Conclusion** This study represents the first national survey of UK medical students on DH education. Overwhelmingly, the results indicate that medical students recognise the significance of DH and would appreciate better formal integration into their curriculum; which is supported by previous similar studies in the literature. This study also identified how students would prefer to be taught and assessed on DH, in particular that they would prefer it be mandatory yet remain formative at present. Given the increasing ubiquity of DH in clinical practice, it is therefore crucial that universities and wider medical education organisations work to improve and standardise DH education, to better prepare medical students to adapt to the continuously developing digital landscape. This rings especially true in light of the recent COVID-19 pandemic which has highlighted the quintessential nature of DH to medical practice. Our intended future research from this study includes undergraduate focus groups for greater qualitative depth of information, and Delphi panels from wider medical education stakeholders into what should be included in DH education, with the eventual goal of developing a comprehensive and standardised national DH curriculum.

## 7 HEALTHCARE STAFF PERCEPTIONS ON USING ARTIFICIAL INTELLIGENCE PREDICTIVE TOOLS: A QUALITATIVE STUDY

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**Objective** Artificial intelligence (AI) predictive tools can help inform the clinical decision-making process by, for example, detecting early signs of patient deterioration or predicting the likelihood of a patient developing a particular disease or complications postsurgery. However, it is unclear how acceptable or useful clinicians find these tools in practice. This project aims to explore healthcare staff' perceptions on the benefits and challenges of using AI tools to inform clinical decision-making in practice.

**Methods** Healthcare staff (physicians, pharmacists and nurses) working in different departments at one large teaching hospital in the North East were invited to participate in semi-structured interviews. Interviews were conducted between August and November 2021 by zoom videoconferencing, with questions focused on what AI predictive tools they currently use, how they guide daily tasks around diagnosis, management, prevention, prognosis and screening, and what challenges they face with their use. All transcribed files were checked for accuracy. Thematic saturation guided the volume of qualitative data collection. Qualitative data analysis and development of themes was performed for each interview using Nvivo 12 software. Ethical approval was obtained (20/EM/0183, IRAS 280077).

**Results** Ten healthcare staff were interviewed (physicians ( $n=7$ ), pharmacists ( $n=1$ ), surgeons ( $n=2$ )) from different medical specialities (e.g., Oncology, Endocrinology, Cardiology, Head and Neck, and transplant surgery). Five themes emerged, including the meaning of the term AI, the usefulness of AI predictive tools in informing clinical decision-making, features that healthcare staff found helpful, and challenges