A critical appraisal of five widely used eHealth applications for primary care – opportunities and challenges

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Background: Given the pressure on healthcare, eHealth can offer valuable opportunities. However, understanding the potential and challenges of eHealth in daily practice can be challenging for general practitioners (GPs) and staff.

Objectives: To critically appraise 5 widely used eHealth applications to increase understanding of eHealth among GPs and highlight opportunities and challenges.

We analyzed Thuisarts, Liva Healthcare, SHUTi, Babylon Health and SkinVision. The preconditions for safe, evidence-based, and high-quality eHealth were elaborated for each application (Box 1). We highlight how these preconditions ultimately influence the adoption and utilization of eHealth applications.

1. Conditions to ensure safe, evidence-based and high-quality eHealth

2. Engagement of and co-creation by all stakeholders

3. lended care: eHealth combined with regular care

4. Individualised and inclusive

5. Applicable in high- and low-resource settings

6. Evidence-based and supported by educational guidance

7. Being attentive to ethical considerations, privacy and patient safety

Discussion: eHealth can support patients while increasing efficiency for GPs. A three-way division (inform, monitor, track; interaction; data utilisation) characterizes many eHealth applications, with increasing degree of complexity depending on the domain. All 5 applications provide information, some have extra functionalities that promote interaction, while data analysis and artificial intelligence may be applied to support or automate care processes. Applications in the inform domain are easy to use and implement with limited impact on outcomes. More demanding applications (privacy and ethics) are found in the data utilization domain with significant impact on care processes and outcomes.

We can conclude that these 5 widely used eHealth applications did not have all necessary conditions for high quality and safety. When selecting and implementing eHealth applications, we recommend that GPs remain critical regarding preconditions for safety, evidence, and quality, particularly in the case of more complex applications in the data utilization domain.

Biography

Esther Talboom-Kamp completed her medical studies at Erasmus University Rotterdam and practiced as a general practitioner for 10 years. She combined working as a healthcare manager with MBA-study at Erasmus University. She then started as director of a diagnostic center and was elected the most talented manager in healthcare in the Netherlands. In 2011 she started as CEO at Saltro, a leading innovative diagnostic center. She completed her PhD-dissertation in 2017 about eHealth and the necessity for blended care for chronic patients in primary care. She is board member of the National eHealth Living Lab and actively involved in research and publications on the development and implementation of eHealth. In 2020 she was appointed as Chief Innovation Officer at Unilabs Group. At Unilabs she leads a multidisciplinary professional team that develops and researches digital innovations.

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