Enhancing prostate cancer care by optimizing patient engagement with digital tools

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Introduction

Most patients with prostate cancer (PC) live at home; this involves a degree of self-sufficiency in managing symptoms.[1]

Digital tools can play an important role in personal monitoring and symptom management in PC, which can reduce the strain on healthcare systems. However, it is unclear whether currently available self-management tools for PC are being implemented effectively, and to what extent patients engage with them.

Objective: To explore patient engagement with digital tools to help enable future optimization of functionalities to better support PC care

Methods

A literature review of real-world use of digital tools in PC care was conducted (for publications within the last 5 years). The target database was Embase, supplemented with handsearching of PC congresses. The search strategy used keywords such as 'telemedicine', 'app' and 'self-management'. Abstracts and full articles were assessed for eligibility. Eligible articles contained data relating to how patients with PC engage with digital tools to self-manage / monitor their disease.

Results

Sixteen studies were included, involving 1193 participants and various digital tools (Figure 1).[1–16] The most common functionality identified in the digital tools was symptom reporting (N=13), which was often combined with healthcare provider (HCP) monitoring (N=10). Other common functionalities included patient access to records (N=8), direct communication with HCPs (N=10), digitized PC information (N=6), mental health support (N=6) and automatic recording of lifestyle information, ie tracking of physical activity (N=4).

Engagement rates (ie patients who used the digital tool / patients who were provided with the tool) were high (Figure 2). No trend was seen between number of functions in the digital tool and engagement rate (Figure 3), indicating that increasing the complexity of a digital tool will not affect engagement. Engagement rate was negatively correlated with patient age and disease stage, meaning that older, sicker patients likely use digital tools less often.

Figure 1: Digital tools included in study

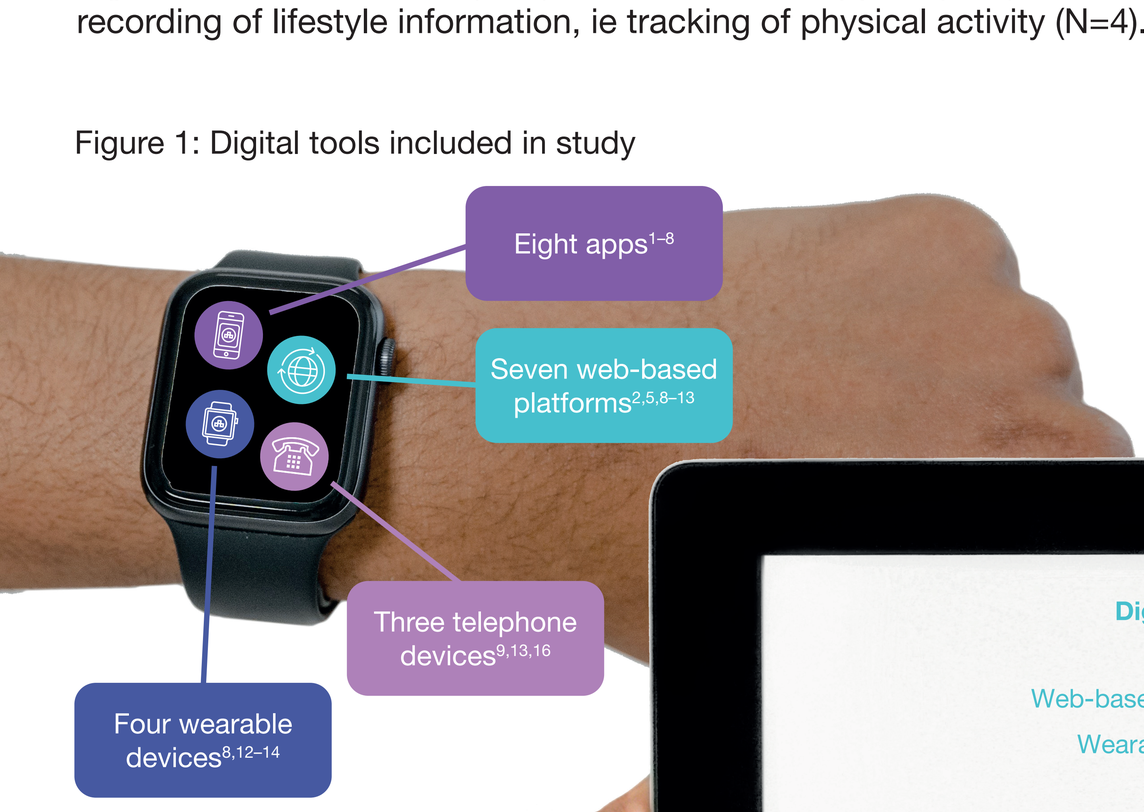

Figure 2: Range in patient engagement with different digital tools and tool functionalities

Figure 3: Number of functions in the digital tool versus engagement

Conclusion

Digital tool engagement in PC was generally high and not tool specific. Patient access to records and symptom management showed the highest engagement – these are likely the most effective functionalities in enhancing PC care and should be implemented in future tools.

With the progress made in artificial intelligence, there is great potential for improving outcomes and reducing healthcare burden across cancer care. Further research is required to determine the most effective digital tool design for older users and those with advanced disease.

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