A valuable perspective on medical devices – assesing the organizational impact of health technologies in decision-making

HTA39

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OBJECTIVES

The primary outcomes of health technologies are often found within clinical effectiveness and safety. Some medical devices differ by having primarily organizational impacts such as facilitating workflows. This abstract presents a case study on two Health Technology Assessments (HTA) of medical devices with primary outcomes on the organizational aspects, illustrating the importance of evaluating medical devices from a wider perspective.

METHODS

In 2023 the Danish Health Technology Council (DHTC) published HTAs on handheld ultrasound devices in emergency departments and intelligent beds in intensive care units. DHTC assess health technologies through four perspectives: Clinical effectiveness, Patient's perspective, Organizational implications and Health economics. The Organizational implications of the investigated technologies were identified through surveys and interviews with health care professionals. By comparing the two HTAs, we identified which factors may present common facilitators or barriers to the realization of the value of these health technologies. (see **figure 1**)

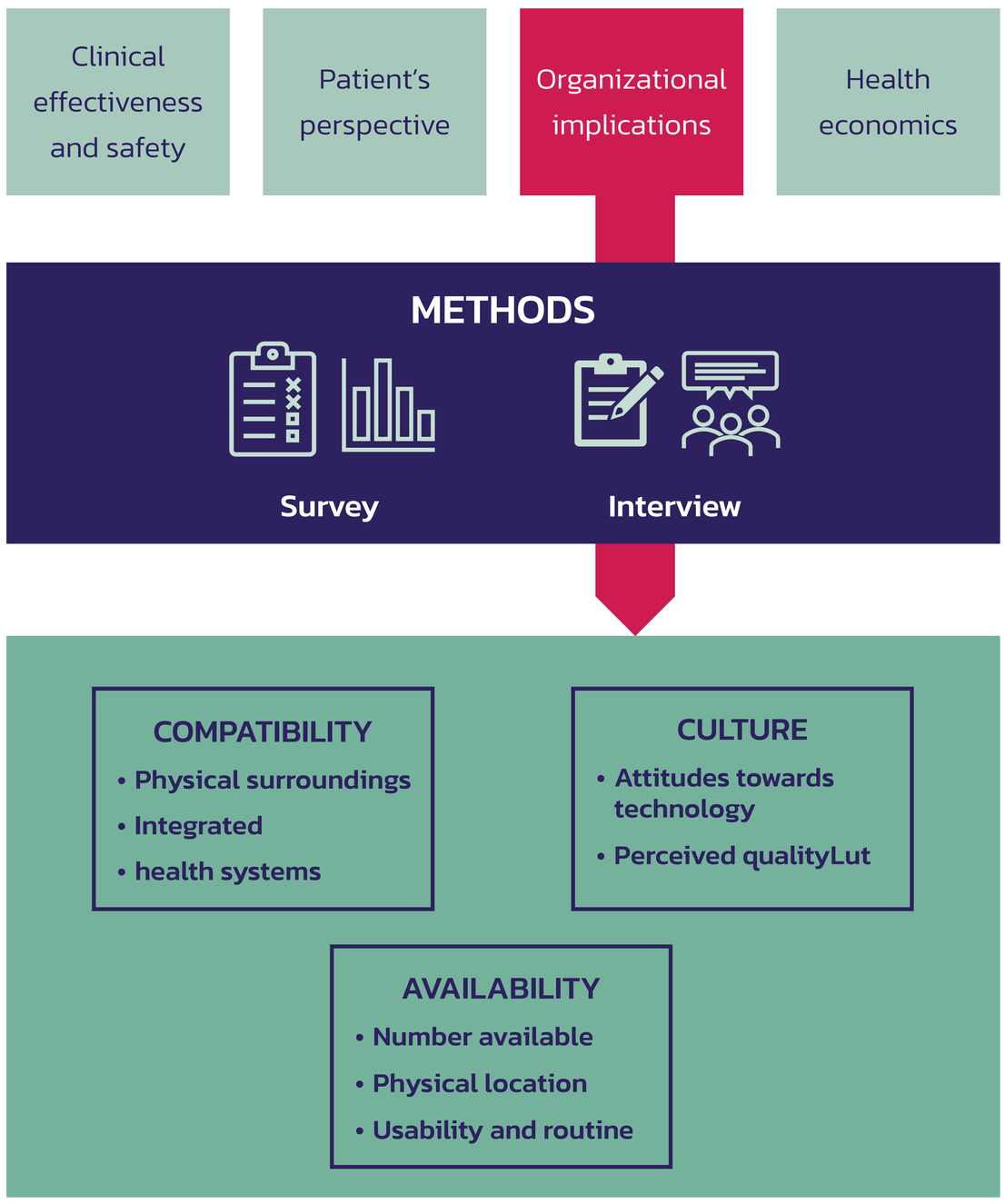
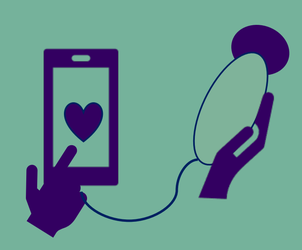


Figure 1. *Organizational implications of two HTAs is compared in a case study to illustrate common factors that perceived as important to evaluate organizational value of the medical devices.*

TECHNOLOGY FACTS

Intelligent hospital beds have several high technological functions including integrated weight, integrated alarm system, chair position and continuous lateral rotation function for ICU patients. The functions aim to improve the physical environment and free up healthcare staff time.

Handheld ultrasound scanners are small, pocket-sized ultrasound devices, typically consisting of one or more probes and an attached screen with the size of a smartphone or tablet. The handheld device aim to improve decision-making in emergency situations.



RESULTS

Three factors were identified as common for the organizational value of the technologies investigated: compatibility, availability, and the attitudes of health care professionals.

Compatibility with regards to the physical surroundings in the clinical setting and integrated health systems appears crucial for new medical devices to be implemented into existing systems and workflows.

Availability, including the number of devices and location of the health technologies impacts access as well as health care professional usability and routine.

Lastly, attitudes towards health technologies and the perceived quality of the devices were identified as critical for the willingness to utilize new technologies. These factors are conditional on local structures and important to address, ensuring that the potentials of technologies are realized in clinical practice.

CONCLUSION

This case study found that organizational implications of health technologies may be crucial for realization of the value of medical devices, making the organizational aspect a valuable perspective in decision-making and implementation of technologies.

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