

An Aid for Facilitating and Supporting Self-management In Families With Long-term Childhood Illness

– Development, Evaluation and Implementation in Clinical Practice

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Background

The needs for treatment of children at risk of long-term illness are challenging health care systems throughout the world. Safe *eHealth* is suggested to have benefits in terms of increased communication, health economy and environmental sustainability.

Our aim is to advance the knowledge of clinical efficacy and cost-effectiveness for *eHealth* as a tool for promoting and assisting self-care for children with long-term illness and their families, and to build a sustainable multidisciplinary environment for development, evaluation, and implementation of *eHealth* in paediatric health care.



Design & Methods

Using participatory design, seven projects in Sweden, Denmark and Ethiopia are developed, tested for feasibility, and evaluated using a framework for complex interventions. Interviews and questionnaires with children, parents and professionals and technical reports are used for evaluation. Cultural, technical, and health economic aspects of *eHealth* are analysed.



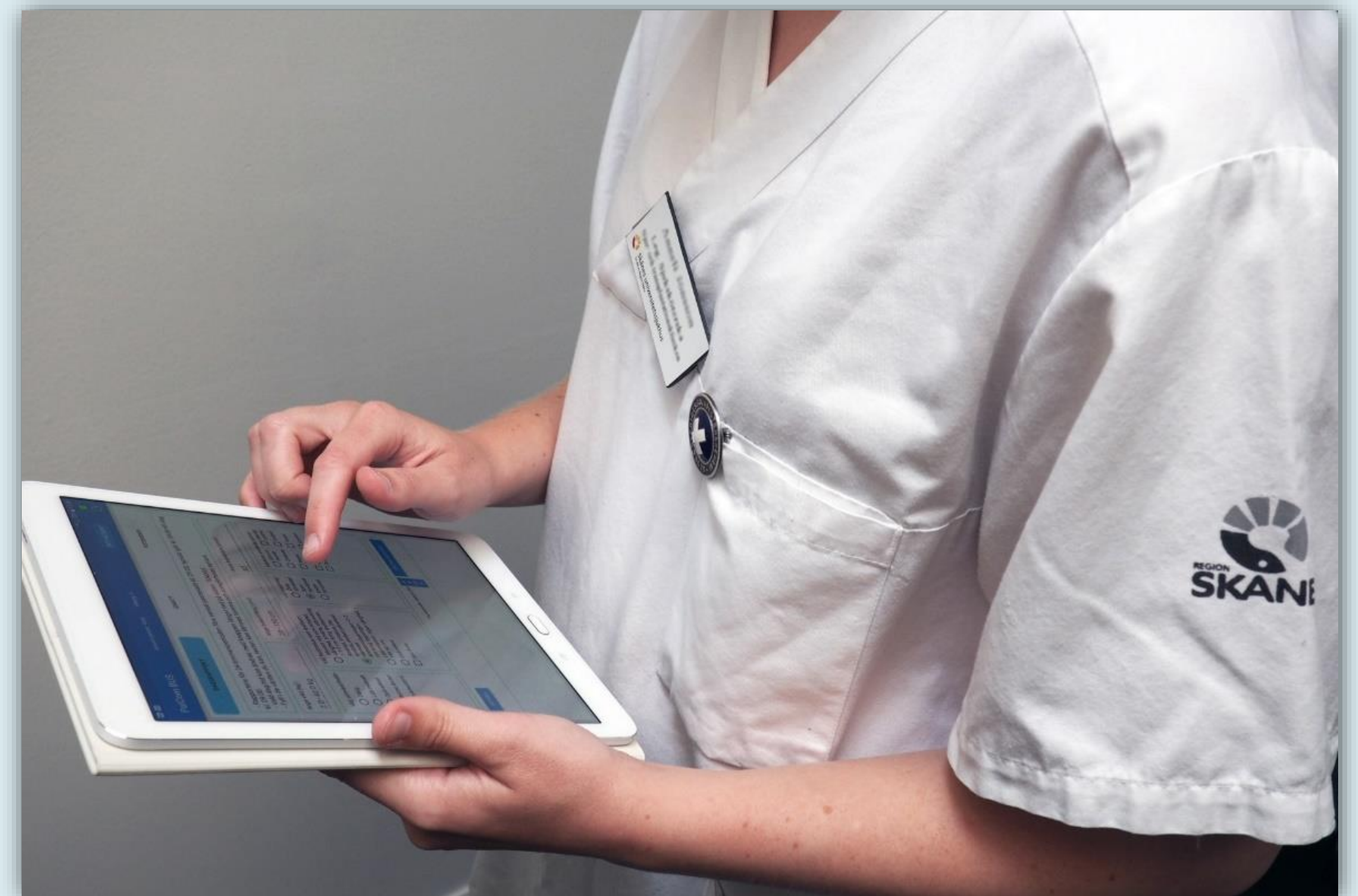
In Sweden an app in an *eHealth* device is used, designed for safe communication and support from the family's home and nurses at the hospital. Included is the possibility for daily reports, video calls, text messaging, sending images, child and parent reports and prescriptions from nurses.



In Denmark the ordinary medical report system is used for instruction videos and support to families of children receiving intravenous treatment at home. Also AI-technology is used to analyse infant general movements for early identification of Cerebral Palsy.



In Ethiopia, mobile phone text messaging is used for improving adherence to and retention in antiretroviral treatment for adolescents with HIV.



Outcomes

eHealth is described as the lifeline and enable a safe and direct communication between the family and the professionals at the hospital.

Using *eHealth*, resulted in:

- Earlier first care contact.
- Increased communication.
- No change in care time, complications or physical check-ups.
- SMS-reminders are helpful and increase the adherence to treatment. Better access to internet and electricity is needed.

Conclusions & Implications

- *eHealth* can support safe self-treatment within child and family-centered care.
- Future research may consider organization perspectives and health economics.

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Read more:
<https://portal.research.lu.se/en/projects/echildhealth-2>

