CTIT

DESIGN OF A TELEREHABILITATION SERVICE FOR LUNG CANCER PATIENTS

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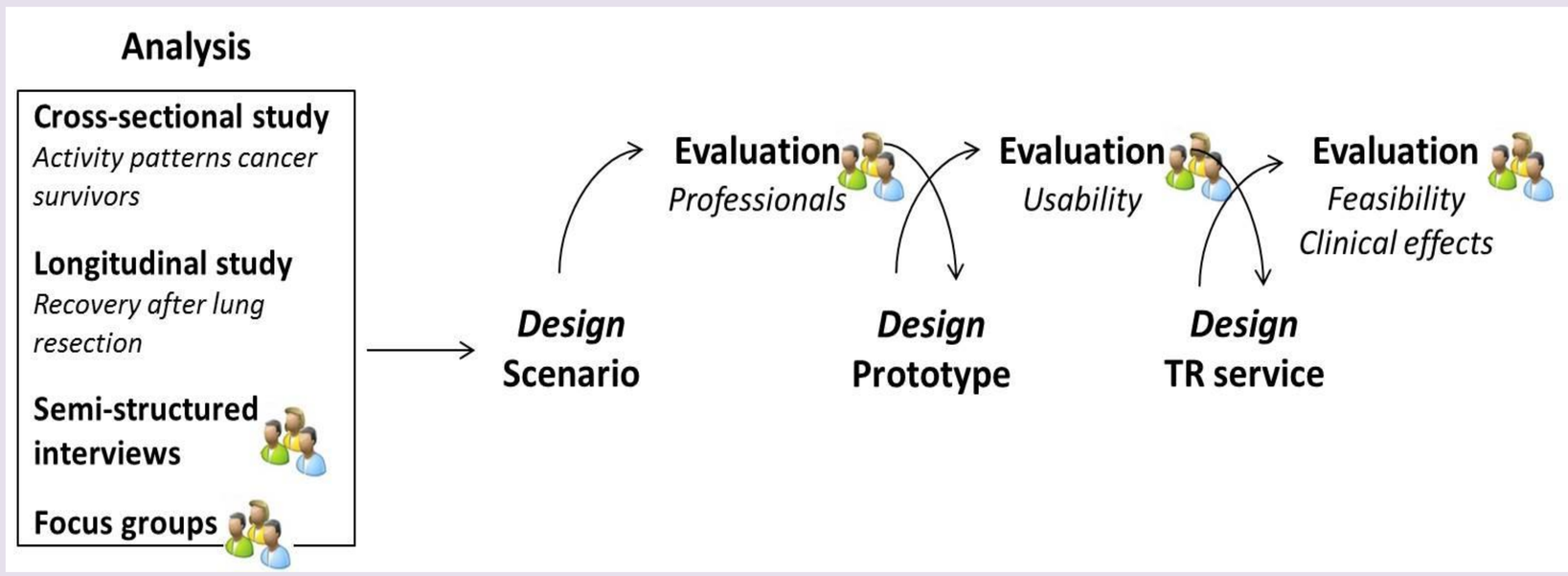
Introduction

Lung cancer patients experience high symptom burden and significant decline in physical function following lung resection[1]. Especially these patients might benefit from ICT-supported care post-surgery, as it enables frequent monitoring of health status in daily life, and provision of timely and personalized feedback to patients and professionals.

We aimed to design a new and innovative telerehabilitation service for cancer patients treated with curative lung resection.

Methodology

- Sociotechnical scenario-based design approach[2].
- Early and systematic involvement of end users.
- Iterative process.



Telerehabilitation service

A modular system was developed consisting of 3 treatment modules with the aim to improve 1) symptom management, 2) physical fitness, and 3) daily activity patterns following lung surgery. Information is visualised on a web portal integrating monitoring data with hospital patient records. End users found the system simple and effective, and were willing to use the system.

Discussion & Conclusion

Using a sociotechnical iterative design approach it is possible to develop a technically reliable and useable telerehabilitation service that supports patients in their reconditioning after cancer surgery. Future research will aim at more elaborate evaluation of the telerehabilitation service with the end users to establish feasibility and clinical effects.

Acknowledgements

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References

1. Brunelli *et al.*, Quality of life before and after major lung resection for lung cancer: a prospective follow-up analysis, 2007.
2. Huis in 't Veld, R. M. *et al.*, A scenario guideline for designing new teletreatments: a multidisciplinary approach, 2010.

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