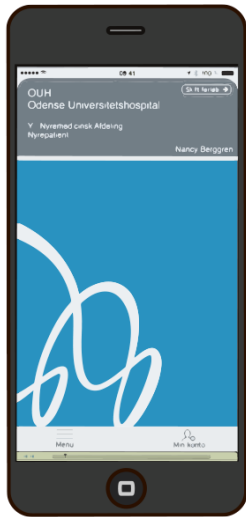


How to assess user experiences of hospital apps for patients?



Kristian Kidholm, Anne Mette Ølholm

CIMT

Centre for Innovative Medical Technology

SDU 
UNIVERSITY OF
SOUTHERN DENMARK

OUH
Odense University Hospital
Svendborg Hospital


Region of
Southern Denmark



Background

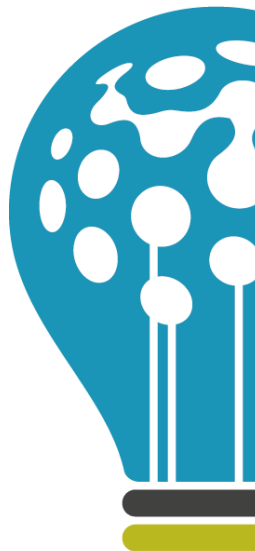
THE EVOLUTION OF TELEMEDICINE



2010

2016

2018



Background

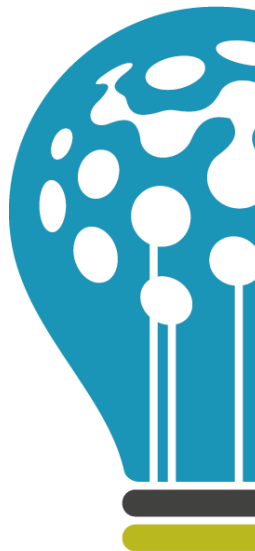
THE EVOLUTION OF TELEMEDICINE



2010

2016

2018



Background

THE EVOLUTION OF TELEMEDICINE



2010

2016

2018



Background

THE EVOLUTION OF TELEMEDICINE



2010



2016



2018



Background

THE EVOLUTION OF TELEMEDICINE



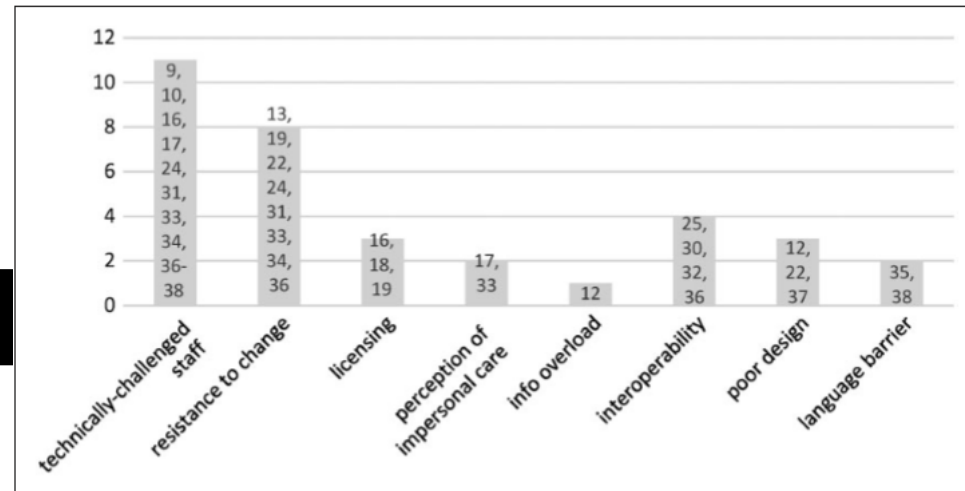
2010



2016

Evaluating barriers to adopting telemedicine worldwide: A systematic review

Clemens Scott Kruse, Priyanka Karem, Kelli Shifflett, Lokesh Vegi, Karuna Ravi and Matthew Brooks



Background

THE EVOLUTION OF TELEMEDICINE



The solution:

1. Assess the user experience
2. Improve the app
3. Assess the user experience
4. Improve the app....

2010

2016

2018



Background

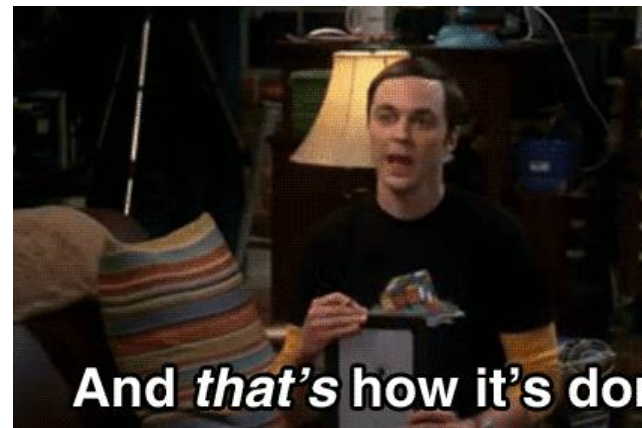
THE EVOLUTION OF TELEMEDICINE



2010



2016



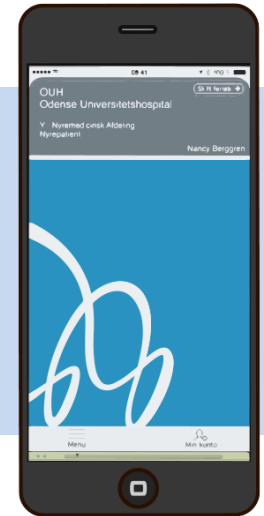
2018



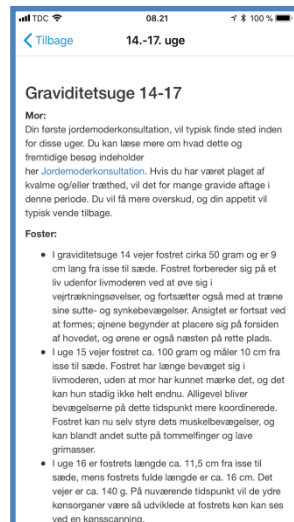
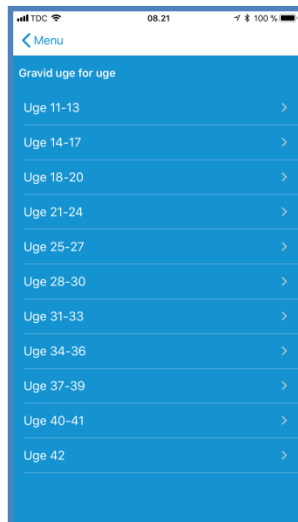
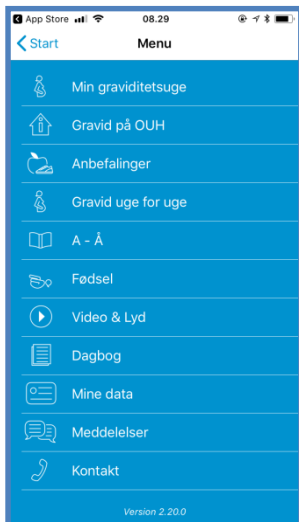
Background

Status for "My Pathway" in 2018:

- 40.000 patient downloads
- 1700 downloads by professionals
- 80 apps produced
- 107 under production



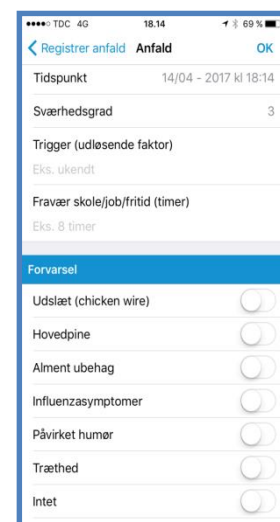
Information – week by week



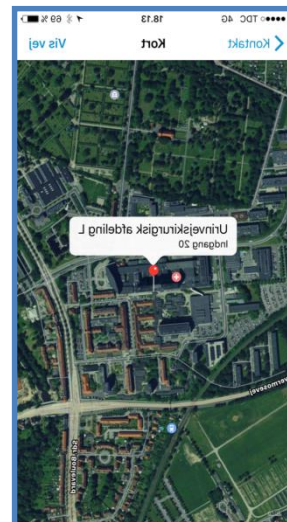
Communication



My own data



Way finding



Objective

- To develop a Fast-Track Tool for assessment of user experiences of apps for communication between patients and the hospital staff
- That can form the basis for further quality improvements...
- That will be simple for the staff to use on a regular basis

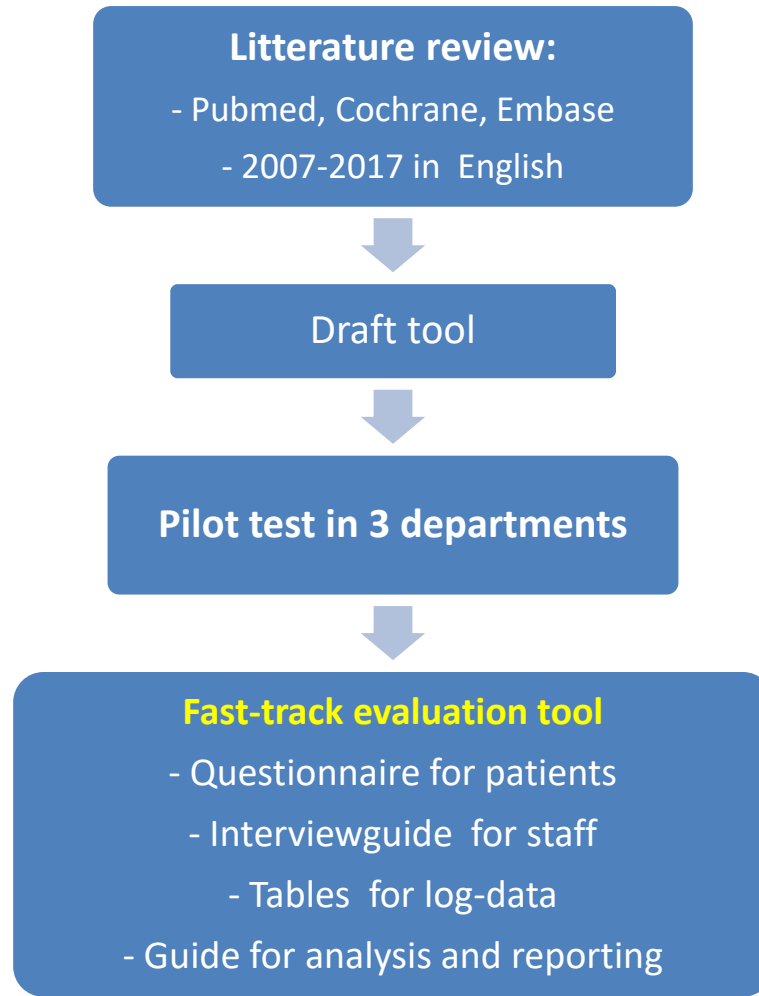


Objective

- To develop a Fast-Track Tool for assessment of user experiences of apps for communication between patients and the hospital staff
- That can form the basis for further quality improvements...
- That will be simple for the staff to use on an annual basis



Methods

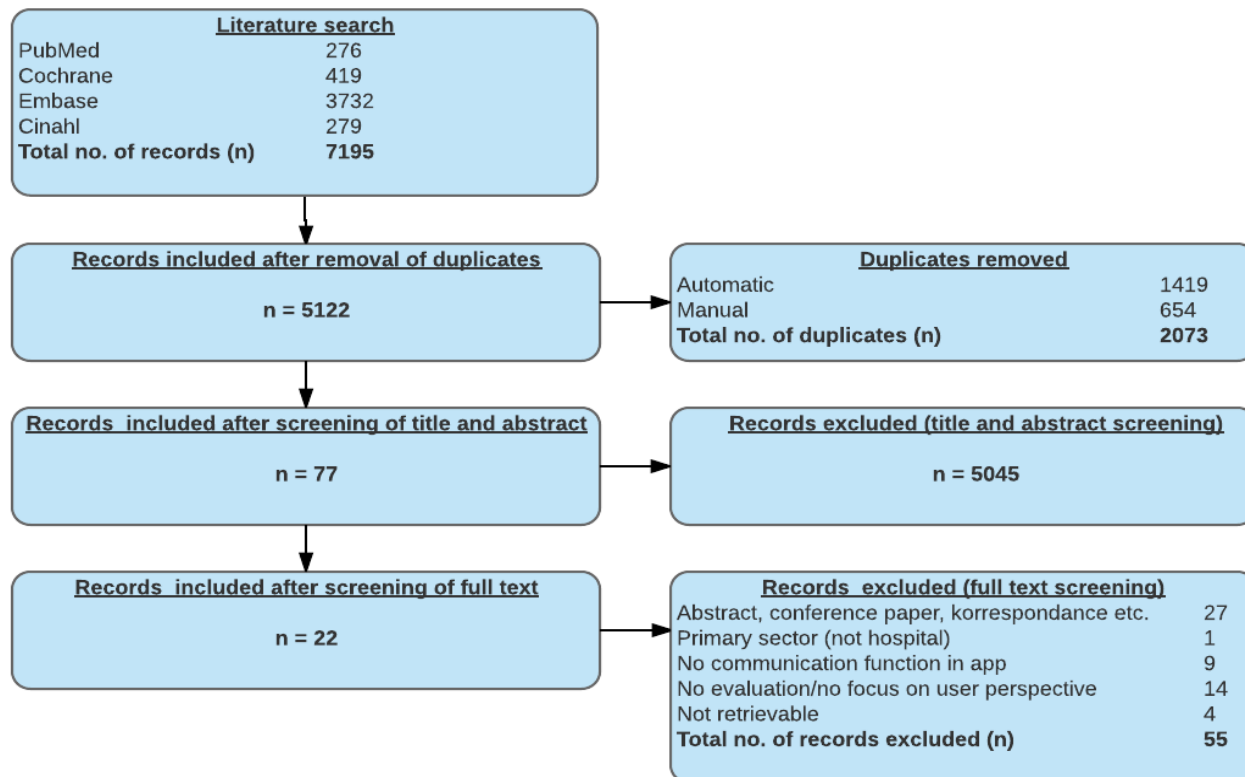


Results

Litterature review:

Search for:

Assessments of user experiencs of mobile health apps for communication between patients and health profesionales



Results

Litterature review:

Types of studies:

Questionnaire studies:	13
Interview studies:	7
Analysis of log-data:	6
Litterature reviews:	3

Generic themes in assessments of healths apps

Satisfaction, acceptability, ...	16
Usability	7
Effect on patient-doctor relationship	6
Log-data, usage data	4
Suggestions for improvements	3
Other	6

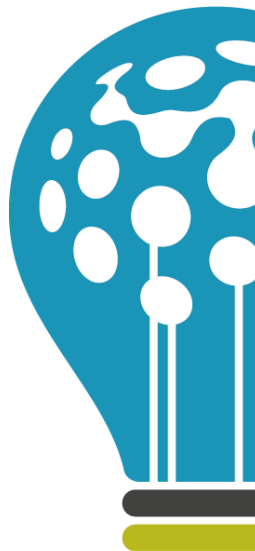


Results

Draft questionnaire to patients

1. Who introduced you to the app?
2. How often do you use the app?
3. Which part of the content of the app do you use?
4. SUS System Usability Scale?
5. Technical problems?
6. Satisfaction with the different functions (1-5 scale)
7. Need for improvements?

Open questions with possibility for explanation.

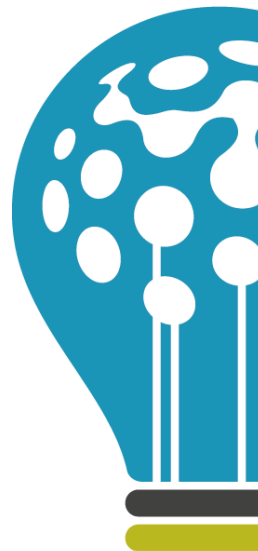


Results



Draft list of themes for focus group interview with the staff:

1. Impact on workflow, tasks and use of time?
2. Training of staff?
3. Impact on patient pathways and collaboration with the patients?
4. Technical problems and reliability?
5. Usability?
6. Consideration of data safety?
7. Overall satisfaction?
8. Future use and suggestions for improvement?



Results

Questionnaire to patients

Responserate : 27% = 190 of 707 women

Use of app:	Daily use	9	5%
	Weekly use	97	51%
	Monthly use	48	25%
	More rarely	32	17%
	Newer	4	2%
	Total	190	100%

Satisfaction:	Recommment to others	68%
	Concerned about data safety	6%

Technical Issues:	Technical problems	22%
--------------------------	--------------------	-----



Results

Questionnaire to patients

22% suggest improvements:

- *"Who to call when...."*
- *"Results from examinations during pregnancy"*
- *"Full integration with EPR"*
- *"Improve usability"*
- *"Midwives starts using my data"*
-



Results

Staff focus group interview: 4 nurses, 1 midwife

1. Impact on workflow

- New task - to answer app-questions (within 4 hours)

2. Technical aspects and usability

- Works well – no technical crash

3. Satisfaction

- A good service – patients value the service
- Some questions are irrelevant - “Best shop for baby clothing?”
- Does require extra time from the staff – an additional task

4. Need for improvements

- Better introduction to the staff
- Integration with EPJ



Results

Log-data (n = 4,062 women)

Use of functionalities:	
• Week by week	25,451
• My pregnancy week	21,948
• Messages	17,193
• Birth	16,768
• Pregnant at OUH	16,313
• My data	15,444
• Recommendations	9,005
• Diary	5,104
• Video	921
• Other	16,902
• Total	145,049

Messages:

- 344 questions submitted in 2017
- Mean time to answer: 11 hours



Conclusion

1. The FAST TRACK tool can identify:

- Patient perception and need for improvement
- Challenges for the staff
- The app functions being used

2. Next steps (2018-2020):

- Final analysis of pilot data
- Development of FAST TRACK guide
- Offer the tool to all hospitals



3. Limitation:

- Only focus on user experiences

Questions?

