Designing an E-Health Application in Collaboration with Obesity Patients
Objectives

- To design and develop an e-health application in collaboration with patients and healthcare personnel

- To enhance obesity patients ability for self-care management through electronic means
Patients

- Two types of weight-loss treatments:
  - bariatric surgery
  - lifestyle therapy

- Obesity patients that receive weight loss treatment require follow-up a period of time after treatment to maintain a healthy lifestyle
Methods

- Qualitative research methods
- Workshops involving design tasks, group discussions and semi-structured interviews
- Objectives for the workshop: Systematically gather information, ideas and perspectives from the different participating groups
- Video- and audio recording of the workshops
- Transcription and Analysis
Design Process

WS1

WS2

WS3

Transcription & Analysis

Development of e-health application

WS4

Re-Design

Usability Testing

Analysis & Re-Design

Implementation
The Workshops (WS)

- **WS1**: Healthcare personnel (N=8)
- **WS2**: Participants that had undergone lifestyle treatment (N=6)
- **WS3**: Participants that had undergone weight loss surgery (N=6)

- Each workshop lasted for about 3 hours and 30 minutes
- In total 20 participants
- 3 Researchers were present during the workshop
What do the patients need?

Requirements from the workshops

- Help to structure the day
- Reminders (e.g. to eat)
- Information (nutrition, food, exercise)
- Psychological support
- Coaching and encouragement

- Contact with healthcare personnel for questions and professional advice
- Contact with other patients for networking, knowledge sharing and support
Buddy System/ Self-help groups

What?
- Previous patients can be helpmates for new patients
- One helpmate has the responsibility to follow-up a group of patients
- Starts before treatment
- Continues for a restricted period of time

Why?
- Information exchange
- Value of learning from each other
- Social network
- Patient-patient communication provides unique information that healthcare personnel do not have
The e-health application

- General information (about food, nutrition, exercise)
- Commonly asked questions with answers
- Discussion forum
- Meetings
- Personal health plan
- Personal notes
- Personal communication with healthcare personnel or other patients
- Communication with other patients
- Reminders to help structure the day (e.g., about meals)
- SMS with newsfeed from the online healthcare service

Computer

Online healthcare service

Supervised by healthcare personnel as moderators

Open

Secure

Mobile phone

NTNU
Norwegian University of Science and Technology

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Conclusion

• Involving both patients and healthcare workers provides different views and information about what to develop
• The requirements for the contents of the e-health application are almost the same
• The patients provides information about the context of use
• The rationale for the requirements are different between patients and healthcare personnel
Questions?
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