Research Summary
Catharina

Aranca Akkermans
Boryana Stoyanova
Esther Boetzkes
Loes Wille
Koen van der Hulst

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Research questions

Our main goal is to answer this main question:

How can we improve the quality of life during the diagnose and operation procedures?

We will ask several sub-questions in order to answer the main question:
- What is the esophagus cancer?
- What is the procedure?
- What is the most physical optimal situation?
- What is effects do (existing) chatbots have in healthcare?

The cancer, the procedure, the optimal condition

The cancer	The procedure	Optimal physical condition
- Quantitative cancer information - What is esophagus cancer? - Complain during chemoradiotherapy - Complications and exceptions during surgery	- When patients need to contact the hospital - Potential contacts - Diagnose and research - Chemotherapy - Information about recording - Procedures before surgery - Items to bring along when recording - Operation day - After operation – movement and nutrition	- Keep weight - Stop smoking - Get support - Nutrition tip for side effects caused by chemoradiotherapy - Exercising and moving - Tip for right after surgery - Sample menu

Chatbots in healthcare

The advantages of chatbots in healthcare summarized in one list:
- Availability and ongoing health monitoring
- Providing information fast when there is not a moment to lose
- Gaining the trust of patients
- Scheduling appointments
- Providing support and additional information

The existing obstacles to widespread adoption in summarized form:
- The elderly still prefer to avoid utilizing digital technologies
- Chatbots are sensitive to hacking
- Information should be extremely accurate as clinical decisions will be taken

Chatbots have potential in the healthcare market by utilizing the following points:
1. Expanding patient care continuity
2. Providing users with access to validated medical information on-demand
3. Recommending diagnoses at the first sign of illness

Physicians believe that chatbots could become a surrogate for non-medical caregiver, by supporting, motivating and coaching patients as well as for streamlining organizational tasks. However, concerns remain for chatbots in areas where expert medical knowledge and intelligence is required.

A chatbot that communicates in a natural "human" way is key for building a human-robot relationship. Trust is key for a patient to talk about secrets and revealing true emotions to a chatbot. A chatbot that gives information can be an active way for a patient to gather information about his/her illness. In research, the people most likely to trust a chatbot are adolescents, students and experts with technology. Existing chatbots are using techniques to support a patient like emotional support and informational support. The ability to ask free questions are not that expanded and needs work. People that would be fit to start using a chatbot are newly diagnosed could be looking for clarity and want to take back some control.