Overview of Patient-centered Health Applications

Workshop for Intelligent Medical Services – Health Applications for Patient Empowerment

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Outline:

• Our involvement in the IMS project
• Focusing on patient empowerment
• Patient engagement in research
• Examples of patient empowerment tools in UM
• Future research

Our involvement in the IMS project
Intelligent Medical Services over TEIN

• Prof Lee and team has developed a brilliant IMS platform.
• UM was offered funding by TEIN-CC to learn from IMS team.
• Current stage: learning from the IMS team
  • Online webinar
  • MOOC
  • Inbound Summer School
  • Outbound Summer School
• To apply the knowledge and develop medical silos

Focusing on patient empowerment
Patient Empowerment

WHO defines empowerment as “a process through which people gain greater control over decisions and actions affecting their health” and should be seen as both an individual and a community process.


Patient Engagement in Research

Why involving patients/users?

- User involvement has been recognised as a key factor to successful adoption of intervention (Kanstrup et al., 2017; Kastrenkuk & Nafte, 2016; Moody, 2014; O’Brian et al., 2016)
- Involvement of user and stakeholder in the design process is rewarding as it provides creative ideas, especially looking from user’s perspective, which results in higher acceptability and potentially increased effectiveness of the intervention (Moody, 2014; Voorberg, Bekkers & Tummers, 2015)
- Important to identify users’ preference and needs before developing a mobile app to improve its acceptability and effectiveness (Schnall 2016, Mccurtie, 2012)
Patient engagement in research

What the patients/users felt?
- ‘Glad that the University is developing something for us’
- ‘Glad that we can contribute and that our voice is heard’
- ‘Normally people look for us to sell things but today we are like consultants’
- ‘Next time when it is launched, I will be able to tell my friends that I contributed to this’

Examples of patient empowerment tools in UM

BCPDA (Breast Cancer Patient Decision Aid)
- **Aim:**
  - To assist patients diagnosed with breast cancer to make decision about treatment.
- **Target users:**
  - Patients diagnosed with breast cancer
  - Patients’ family members

DMIT (Decision Making in Insulin Therapy)
- **Aim:**
  - To assist patients with type 2 diabetes in making informed, shared decisions with their healthcare providers about starting insulin therapy.
- **Target users:**
  - Patients with type 2 diabetes who are considering about starting insulin
  - Patients’ family members
BladderExplorer

- **Aim:**
  - To assist men with spinal cord injury to choose a method of bladder emptying

- **Target users:**
  - Male patients with spinal cord injury
**Diasense**

- **Aim:**
  - To help patients with diabetes monitor their blood sugar level and dietary intake.
  - The system also enables doctors to view these data to monitor their patients’ condition remotely.

- **Target users:**
  - Patients with type 2 diabetes

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**FoodBook**

- **Aim:**
  - A game to educate children about unhealthy food to reduce childhood obesity

- **Target users:**
  - Primary school children

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**MedAssist**

- **Aim:**
  - To improve patients’ medication adherence

- **Target users:**
  - Patients who are taking medication
CHIEF (Connected Healthcare Integrated Fitness)

• **Aim:**
  • A mobile solution for managing remote monitoring through systematic tracking of patient’s activities

• **Target users:**
  • Patients who are taking medication

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GEMPAQ (Getting Every Smoker to Participate and Quit Smoking)

• **Aim:**
  • To aid smokers quit smoking through behaviour modification and advice on medication use

• **Target users:**
  • Smokers

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MyMonitor

• **Aim:**
  • To improve blood pressure monitoring and management in patients using telemedicine

• **Target users:**
  • Patients with hypertension
MyMonitor

VISIT (Values In Shared Interactions Tool)

- **Aim:**
  - To facilitate patient-centered consultation agenda

- **Target users:**
  - Patients attending UMMC primary care clinic

ScreenMen

- **Aim:**
  - To educate men about their health risks, what screening tests to go for based on their health profile and how to stay healthy

- **Target users:**
  - Men \( \geq 18 \) years old

Future Research

- The tools are at different stages:
  - Implementation
  - Evaluation (randomised controlled trial)
  - User-acceptance test
  - Shelved

- Can be linked and integrated into the EMR
- Can be considered to be transferred/developed into medical silos
- Tap into NREN to CONNECT healthcare with the people
Thank you!