Health Technologies in Palliative Care and Gerontological Nursing: Recent Developments and Advanced Practice

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What is happening in the world?

- The population is ageing. The amount of people older than 60 years is expected to be more than 2 billion in 2050, where 33 countries in Europe have more people 65+ years than under 15 years old. (1)

- There are estimations done that at least one in three Europeans will be over 65 2060 (2)

- Ageing population and a growing burden of chronic diseases, is estimated to increase health and care expenditure on average by 1–2% of GDP until 2060 (3)

What is the situation in palliative care?

- The need for palliative care is increasing when the population is agening and the incidence of non-communicable diseases is growing (4).

- More than 20 million people worldwide are estimated to require palliative care (4).

- In European countries there are estimated that between 38% to 74% of the population require palliative care at the end of life. The highest demand rates for palliative care are in Europe. (5).

Definition of palliative care

- Palliative care is an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual (6)

- Palliative care is an active and interdisciplinary approach and the patient, the family and the community are in its scope (7,8) Not limited to any specific diagnosis or time.

How does the changes influence health care

- We live at a time of constrained public resources for health and social care. (3)

- This increases the need for configuring more sustainable models for health and care delivery in the EU (3)

- There are an increasing need to use technology to manage the demographical changes

- International and national policy approaches are made to improve the development of health technology

Health technology in elderly care and palliative care

- Both the palliative care and the elderly care usually prefer to be at home (3) (9) (10)

- eHealth technologies have been successfully intergrated to palliative care, for example: electronic monitoring of symptoms and syndromes using a handheld computer (11), physical activity monitoring (12), eHealth system supporting palliative care patients (13), (14) personal digital assistant (PDA) system to collect symptom information, (15) remote monitoring system in patients receiving palliative care at home.

- In elderly care there are a wide range of technology and robotics developed and tested to provide independence and to increase the quality of life

- Technology can be used to increase patient safety, to support communication, to increase the independency, but still there are a require for ethical consideration of health technology (16)

Implications to advanced nursing practice, (Konttila et al 2018)

- Healthcare staff need knowledge and skills to integrate digitalisation into clinical practice to provide the best possible patient care.

- Healthcare professionals' attitudes and experiences influence their willingness and motivation to use technology.

- Appropriate and successful technology usage requires regular education

- Psychosocial and organisational factors are significant predictors of healthcare professionals' competence in digitalisation.

- Organisational and collegial support are required for effective adoption and use of new technology.

What have we done in our university of applied sciences?

- The development in our projects are based on user-driven design methods and interdisciplinary collaboration, patient, nurses and engineers together

- Integration of digital competences in Bachelor and Master's degree curriculum

- Creating a smart home care, health technology learning environment
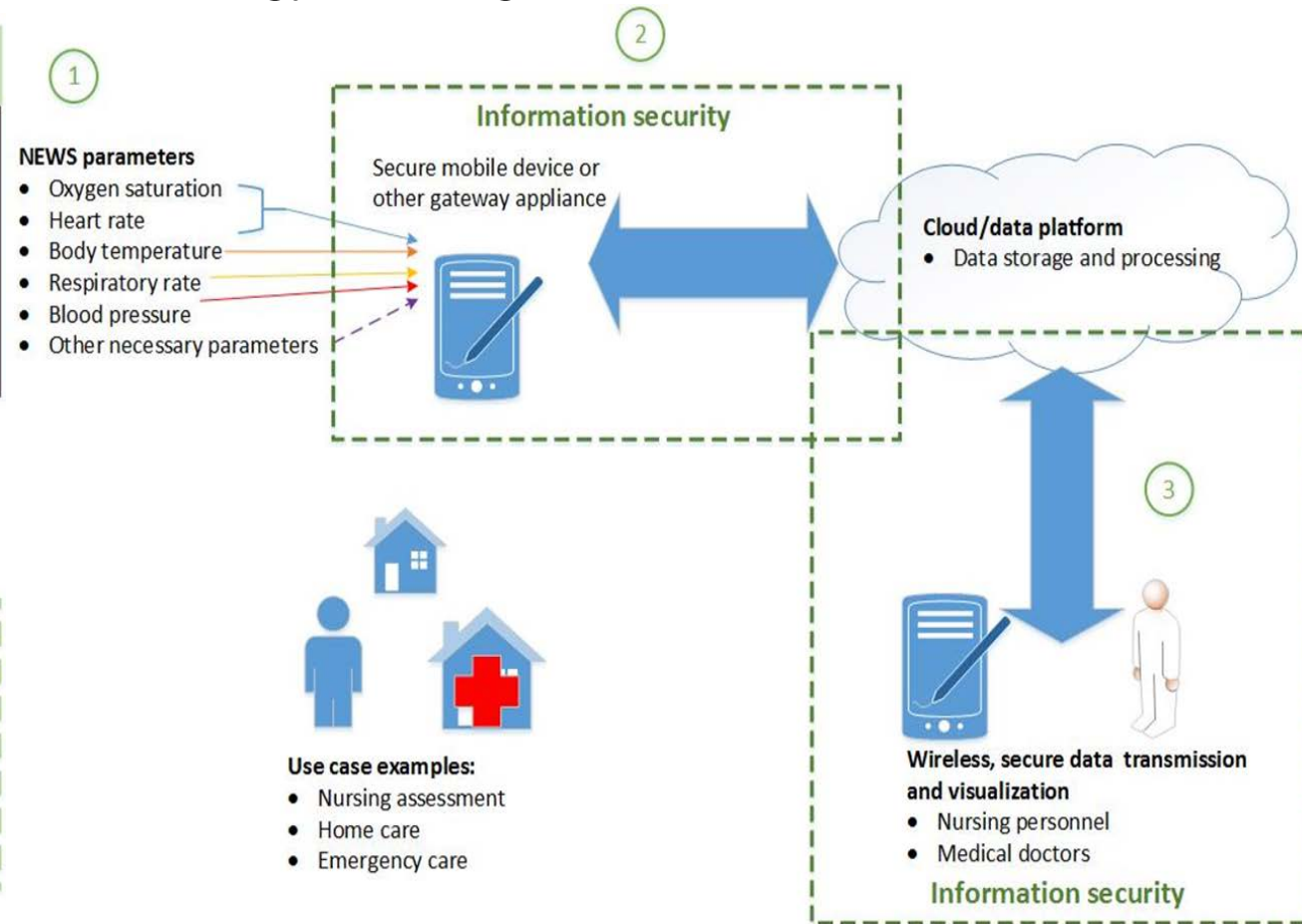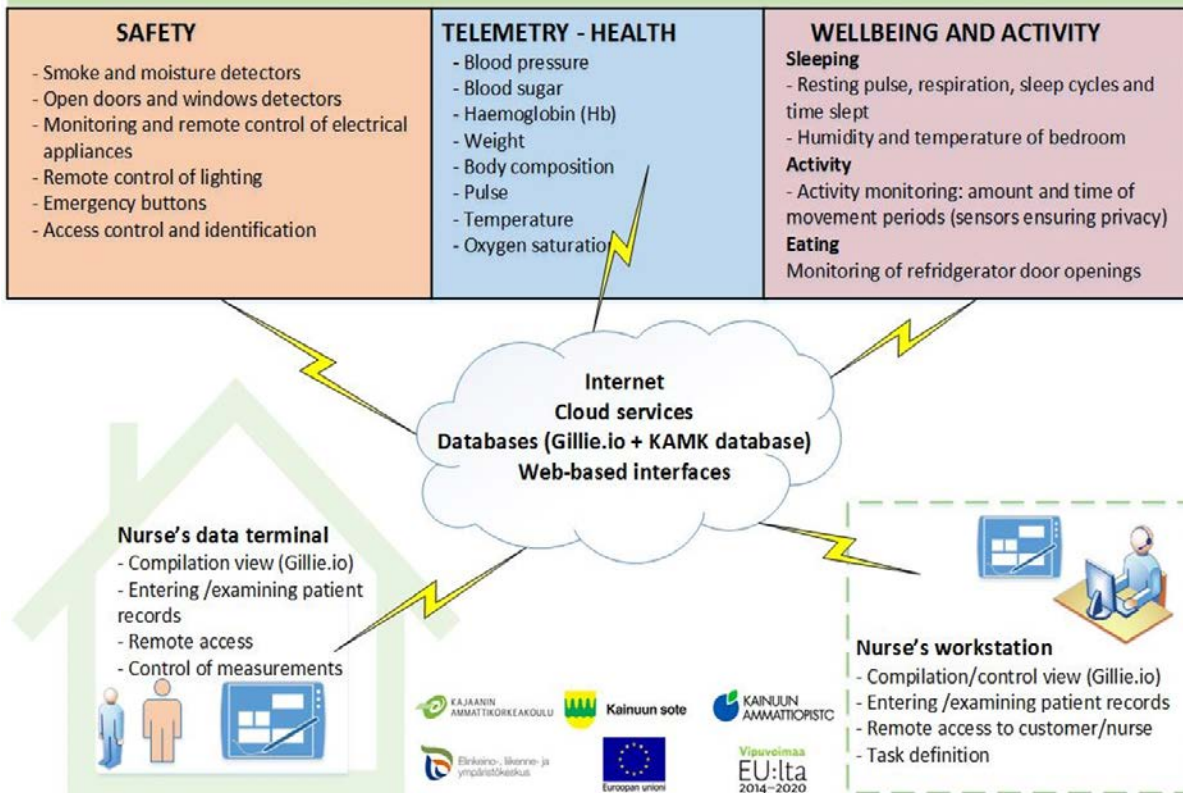
Take-home messages

- Health technology can rise the quality-of life and also help the palliative care patients and elderly people to live more independent at their homes

- Nurses envolment in development of helth technology could help to implement new technologies in health care

- There are a need to streghten the nurses competences in digitalisation, to integrate digital competences in formal and continuous education could help the implementation of health technology

- Health technology changes prosecces in health care, management should provide support and resources for this

- Health technology development and implementation needs also ethical consideration

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