Project title: Evidence-Based-Healthcare and Computational Thinking in Advanced Nursing Science Education

Coordinator
Oulun yliopisto
Kristina Mikkonen
kristina.mikkonen@oulu.fi

The aim of the project is to develop, implement and evaluate module of Evidence-Based-Healthcare (EBHC) and Computational Thinking (CT) in Advanced Nursing Science education (5 ECTS credit) of Finland and Singapore.

In exceptional circumstances (such as COVID) and as the demand for health services grows, long distances in Finland and communicable & non-communicable diseases in Finland and Singapore requires nurses to have advanced competence to conduct EBHC in patient care and CT in fast decision making. According to the latest evidence we already know that evidence-based digital health care was shown to be effective in reducing the risk of disease recurrence, increasing of patient's self-care, adherence and ability to function, patient and staff safety, and to curb the increase in costs. Besides, evidence-based digital health care supports equal access, timeliness, and continuity of services following the objectives of United Nations good health and well-being, the Future Social and Health Center program in Finland and the World Health Organization strategy. Also, the competence of nurses in Evidence-Based-Healthcare and computational thinking must be supported in accordance with national and international strategies.

The joint project answers the educational needs within the Finnish and Singapore higher education institutions and the national needs of governments for deeper knowledge about development in EBHC and digitalization of health care systems.

Evidence-based practice (EBHC) in nursing means understanding the global health situation and retrieving and transferring evidence in patient care decision making to improve and enhance the quality of healthcare. Computational thinking means developing and increasing critical thinking of nurses with the aid of digitalization and integration of artificial intelligence in health care. It includes process of defining the problem, transforming the question into code/diagram/algorithm, computing the answers, and interpreting results into practice.

The objectives of the project are as following:
1. to identify and describe the competence of evidence-based practice and computational thinking of advanced nursing science experts in Finland and Singapore;
2. to develop a new EBHC-CT module for Master’s degree education in advanced nursing science field by integrating it into the curriculum of postgraduate higher education in Finland and Singapore;
3. to integrate the EBHC-CT module into the clinical practice of students to receive hands-on competence of implementing learned skills into patient care during intensive week periods of the module; 4. to increase students’ and educators’ cultural competence and expertise on EBHC-CT by sharing expertise and innovation between two countries.