

Dec. 13, 2019

The Role of Nurse Profession in Facing Technological Development (4.0), International Nursing Symposium, Diploma IV Nursing, Polytechnic Tanjungkarang, Lampung, Indonesia.

The purpose of this presentation was to explore the role of nurse profession facing technological development (4.0), especially disruptive technologies, the role of nursing, changes in nursing education, and processes of engagements in health care delivery.

Technological development is now growing faster involving every aspect of human everyday life, including healthcare settings. Nurses as the frontline of healthcare providers are required to play active roles in facing the high demanding technological situation. New roles arise in responding to the innovative emersion of technological advances in healthcare settings.



However, what is the nurses` roles in such a world?

Since the 1980s, the rapid expansion and development of the Internet have enabled people to communicate globally with real-time audio and video technologies. As a result, it is now possible to conduct face-to-face interactions, to receive telemedicine services, and to search for and obtain health-related information in an instant.

Parallel to this technology is the advancement of robotics, including fabrication of humanoid robots, such as nursing-care assistant robots able to effectively care humans; monitor and encourage physical exercises, particularly with older persons; and communication robot with artificial intelligence (AI) to converse with people.

Also, Health Information Systems (HIS) have enabled access to patient records anytime and anywhere. An internet-based patient support system that allows patients to communicate with healthcare providers in distant locations has also been developed and has improved the health-related quality of life of patients globally.

Human caring founded on a Japanese caring perspective and nursing theory fosters innovative and creative ideas for the aging society. The growing reality of healthcare dependency on technologies influences the temptation to give robots utility as nursing partners in the practice.

Due to the predicted dynamic nature of the nursing profession in the Fourth Industrial Age, nurses are expected to develop critical thinking skills and embrace 'lifelong and lifewide' learning, healthcare and information technology and its dynamics.

Jun. 2, 2019

2019 International Association for Human Caring (IAHC) Conference, Clemson University, South Carolina, USA

Advanced Technologies with Artificial intelligence (AT-AI) in health care has reliably increased and might be changed relationships with human persons as patients and as nurses. In this symposium, we shared with the participants that the relationships among nursing theories The theory of Nursing As Caring, Technological Competency as Caring in Nursing (TCCN) and the Transactive Relationship Theory of Nursing (TRETON).



These theories are linked with AT-AI, and can illustrate unique and emerging theory based practices of human caring nursing. In future research, we have to think about usage of AT-AI for the in human caring practices to improve the quality of life of older adults and people with disability by interdisciplinary research team.

2019 International Association for Human Caring (IAHC) Conference - Theme Caring and Inter-professional Practice: Re-imagining the patient care experience. SYMPOSIUM: The Relationship Among Nursing Theories, Advanced Technologies, Caring in Nursing, and Quality of Life of Persons.

Speakers: Dr. Tetsuya Tanioka, Dr. Hirokazu Ito, Dr. Yueren Zhao, Dr. Yuko Yasuhara, and Dr. Yoshihiro Kai.

Mar. 30, 2019

Our Lady of Fatima University's Research Development & Innovation Conference 2019, Manila, Philippines

The growing reality of healthcare robot utility is as nursing partners in practice. Human caring expressed as human-to-human relationships, and among non-humans is the futuristic vision of healthcare with humanoid robots as main protagonists.



The purpose of this presentation was to explore the topics on Technologies, Algorithms,

Data Mining and AI in Research emphasizing nursing engagement processes between Humanoid Nurse Robots (HNRs) and human persons.

However, with limited understanding of professional nursing practice the types of robots and their functionalities remain problematic, thereby requiring a clear definition and description by no less than the researchers and scientists of nursing themselves.

While robot development for health care is progressing well to meet universal technological demands, I am thinking that it is critical that the developments of HNRs are centered on nursing researchers' recommendations.

December 14, 2018

4th SPUP International Health Congress. "Health Care Technologies and Innovations in the 4th Industrial Revolution"

The aim of my presentation was nursing and rehabilitative care of the elderly using Pepper-CPGE. The capability of Pepper-CPGE is not a function comparable to human beings. However, there are changes in the work of psychiatrist, nurses, and occupational therapists. Also, there have been change in the relationship among patients, robots and healthcare providers.



Our lives might further change with the development of humanoid robots, artificial intelligence, and artificial consciousness. It also affects the diagnostic skills of physicians, and roles of nurses and healthcare providers. If nurses and healthcare providers do routine simple task (automatic care), our job might disappear. I think that thoughtful human relationships and deliberative nursing care is most important and further research should be promoted in this area.

Nov. 29, 2018

INTERNATIONAL NURSING CONFERENCE ON TRANSLATIONAL RESEARCH: TECHNOLOGY, CARING AND INNOVATIONS IN NURSING

Dr. Tanioka's lecture was Nursing Robots: Technology to Advance Nursing Care.

This conference aims to gather researchers all over the Philippines and share their experiences and expertise in translating research findings into



innovations and technology in healthcare to achieve meaningful human health outcomes and well-being.

Nov. 23, 2018

The 8th International Conference of Nurses (ICONS 8)

The conference theme was “Transforming towards Quality Health Care Practices through Research-Informed Innovations”.

My presentation Keywords were Nursing, Humanoid Nurse Robots (HNRs), Artificial Intelligence, Transactive Relationship Theory of Nursing (TRETON), and the Older adults.

While human caring focus on human-to-human relationships, among nonhumans, e.g.



HNRs-to-human relationships, caring practices have not been forthcoming. However, robotics and artificial intelligence will become a prevalent part of healthcare settings. When HNRs can support patients independently, capabilities much like being human will be required, such as intelligence and skill competencies.

Dr. Tanioka's research group is conducting clinical trials using humanoid robots equipped with applications such as in Pepper (manufactured by SOFTBANK CORPORATION), towards elderly care and rehabilitation at the Mifune Hospital, Kagawa prefecture. Care Prevention Gymnastics Exercises (Pepper-CPGE) was made by Xing Company, Japan. This presentation aimed to speak on clinical trial outcomes based on the Transactive Relationship Theory of Nursing (TRETON) (Tanioka, 2017) emphasizing nursing engagement processes between HNRs and human persons. Cooperative undertakings with various interdisciplinary activities mark the visioning from the perspective of Japanese human caring ideas for an aging society.