

The Need of Nursing Care in Aging Society to Increase Quality of Life

(Universitas 'Aisyiyah Yogyakarta, 22 May 2026)



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Outline

❑ Introduction

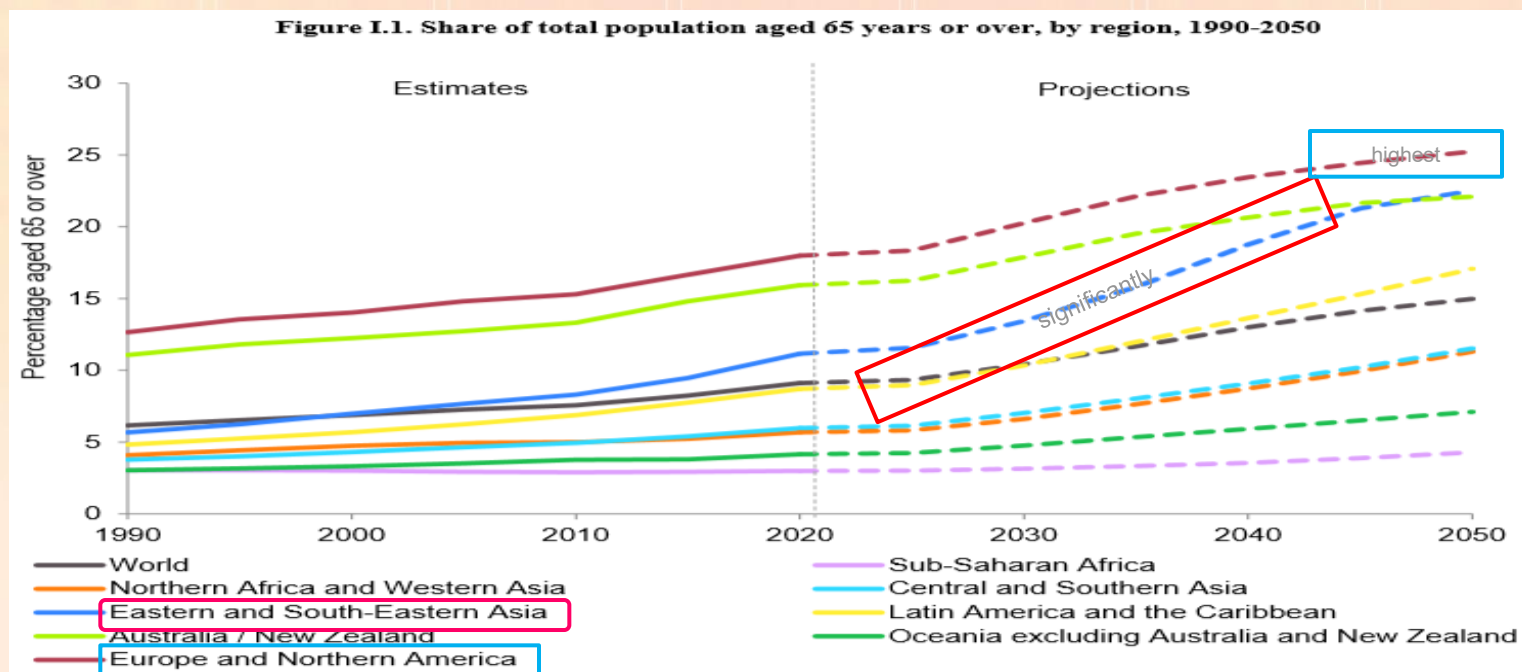
- Aging and technologies
- Caring, Quality of life and Research

❑ Nursing Education

❑ Conclusion

Introduction

- ❑ Ageing is a global phenomenon
- ❑ The proportion of older persons every country in the world were increased (one in six people will be aged 65 years in 2050)



United Nations, Department of Economic and Social Affairs, Population Division
(2020). World Population Ageing 2019 (ST/ESA/SER.A/444).

Introduction

- ❑ Aging is a natural process → Physiological function and capabilities decreased with the aging process (Hyman, Oden & Wagner 2010)
- ❑ Since increasing number of people will live to older ages, (most) this population will live with multiple chronic conditions (hypertension, diabetes, osteoporosis; fracture and dementia) and also functional impairments (difficulties with activities of daily living, mobility, vision problems, hearing loss and the management of one's household) (Amarya et al.,2018; Benjamin, 2010; Chaudhary & Kumar, 2017; Pepito et al., 2019, Undesa, 2020)
- ❑ As older persons experience the aging process, healthcare providers (including nurses) are needed to assist in achieving the best quality of life (Pepito et al., 2019)

Introduction

- ❑ The proportion of aging (in developing countries) is rising rapidly, **in line**, technology was rapidly improved in this era and would continue in the future (including in developing countries) (Amarya et al., 2018)
- ❑ Technology has an important role in the “new” environment for aging well; thus, the environment also includes interactions with technology on **QoL** (Lawton, 1998; Locsin, 2013)
- ❑ **Theory of the ecology of aging:** Competence (aging) and environment variables (technology) have been found to be an important factor in elders’ **quality of life** (Lawton, 1983; Richardson et al., 2000, Wantonoro et al., 2018).

What is QoL (in nursing)?

- ❑ QoL is **individual perceptions** of current state of mind, which is **affected** by the person's **physical** health, **psychological** state, personal **beliefs**, **social**, **environment** (technology) relationships (Theofilou, 2013).
- ❑ QoL has been an important, **subjective** (individual's **physical and mental** health) clinical parameter used to assess the effects of illness and the outcomes of treatment (Shyu, Lu, & Liang, 2004; Karimi & Brazier, 2016).

► [Zdr Varst. 2022 Mar 21;61\(2\):115–123. doi: 10.2478/sjph-2022-0016](#)

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Technological Competency As Caring in Nursing: a Description, Analysis and Evaluation of The Theory

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<https://www.rli-tccn.com/home>

Technology Health Care of Elderly

(Chaudhary & Kumar, 2017)

Examples

- Google Glass:** help patients keep track of their destination, and also help care providers to keep track on them
- GPS shoes:** useful in keeping the patients on defined track.
- Automatic pill dispenser:** reminds the patients about the time for medication
- Interactive systems:** virtual communication through interactive touch screen technology, video chat, active remote monitoring and telehealth.
- Robotics:** assist elderly in being independent

Implementation study: Technology Health Care of Elderly

Tsai et al. *BMC Geriatrics* (2020) 20:27
<https://doi.org/10.1186/s12877-020-1426-2>

BMC Geriatrics

RESEARCH ARTICLE

Open Access

Effects of a smartphone-based videoconferencing program for older nursing home residents on depression, loneliness, and quality of life: a quasi-experimental study



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Advantages and
Limitation

Conclusion: Smartphone-based videoconferencing effectively improved residents' feelings of loneliness, and physiological health, vitality and pain, **but not depressive symptoms.** (Tsai et al., 2020)

Technology in nursing

- ❑ Technology and nursing have been inevitably linked, it influenced the caring values and practice of modern nursing
- ❑ The implementation of modern technology in nursing increases nurses' ***efficiency***, but it is also **changing the “way” of care for patients.**
- ❑ Studies reported: Nursing has become more medically focused, and reliant on medicines and machines *rather than on caring*

(Loscin, 2013; Bagherian et al., 2016; Price, 2013; Tunlind et al., 2015; Rouleau et al., 2017).

"Is human touch needed?"



<https://www.nytimes.com/interactive/2018/11/23/technology/robot-nurse-zora.html>

"Nothing will ever replace the human touch, the human warmth our patients need," (Racine, 2018).

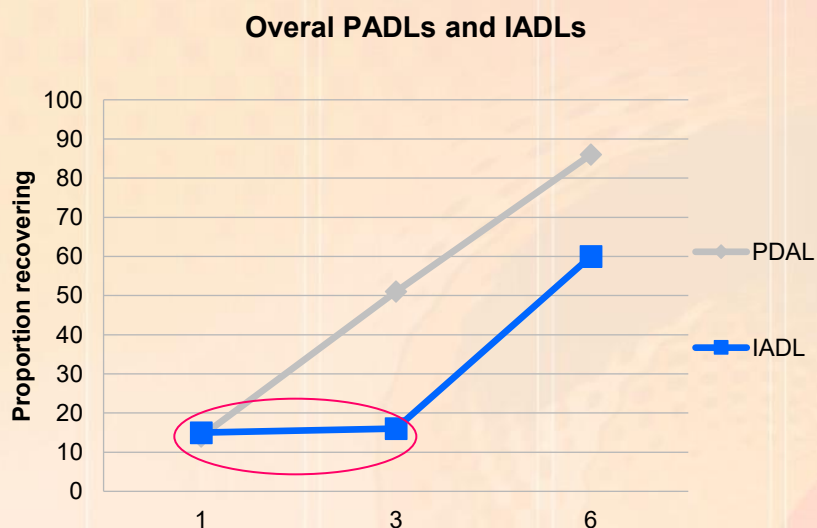
❑ In spite of technology advantages, **its can never replace caring** provided by a nurse

(Almerud et al., 2008; Chaudhary & Kumar, 2017).

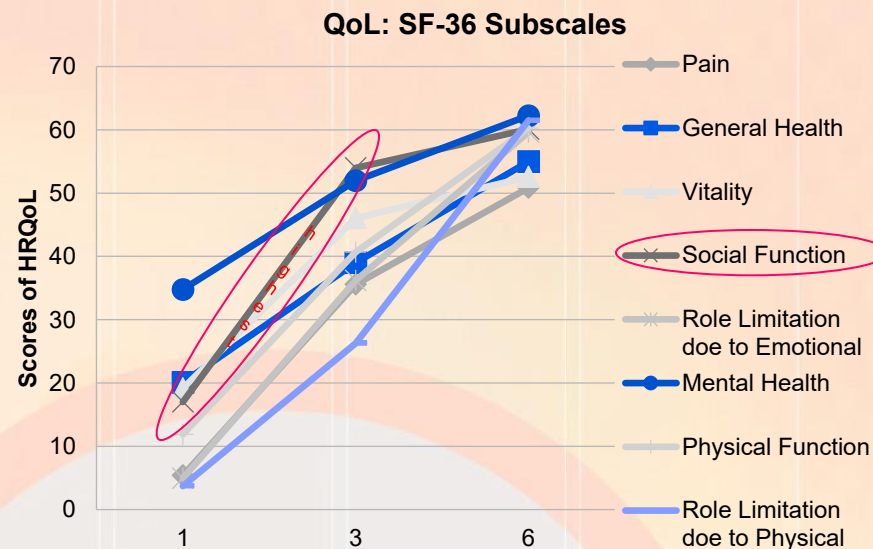
Example; Our Study on QoL

Functional status and QoL of older persons with hip fracture following hospital discharge; on an Indonesian sample

Quantitative study finding



Inform: lack of fit instrumental
(instrumental is importance)



Inform: culture; neighborhood
human interaction is importance
(in older person)

Wantonoro et al., (2019)

Example; Our Study on QoL

Functional status and QoL of older persons with hip fracture following hospital discharge; on an Indonesian sample

Qualitative study finding

- ❑ Although the QoL was increased, the environment (the instrumental and aging place; home and public facilities) becoming a barrier in this population due to physical limitation.
- ❑ The personal beliefs, social/environment relationships (religion activities; praying, neighborhood relationship, nurse, and family caring) are important in achieving mental status this population → QoL were improved
- ❑ **Recommendation:** Caring and supported with instrumental innovation (technology) which proper for this vulnerable population for a deal with their condition is needed

Wantonoro et al., (2019)

Caring?

- ❑ **Caring** is the central expression of nursing; interpersonal process **between two people** with transpersonal dimensions and the expressions
- ❑ Processes and patterns of caring **vary among cultures.**
(Swanson,1991; Leininger, 1988, Watson, 1988; McSherry et al.,2012; Blasdell, 2017)



<https://www.aalforum.eu/technology-key-older-adults-independence-well/>



<https://www.familynursingcare.com/consider-home-care/>

Theory of Technological Competency as Caring in Nursing

(Locsin, 2005)

- ❑ Key conceptual (this theory) is based on the coexistence among **technology, caring, and nursing** as a discipline of knowledge and as a practice profession.
- ❑ Health and nursing technologies are **elements for caring**; with technological knowing, health care technologies and **being experts** in these technological advances are greatly recognized as **essential to the practice of nursing**

(Locsin, 2005; Pepito, Locsin, & Constantino, 2019)

Theory of Technological Competency as Caring in Nursing

(Locsin, 2005)

- ❑ The theory of technological competency as caring in nursing provides the perspective through which **nursing care is expressed with the patient as the central focus**
- ❑ Advances in technology enable nurses to perform their activities and care for patients more **safely and efficiently.**
- ❑ Harnessing technology for the health of older persons would enable them **to live independently and safely.**

Integration

Integration of technology and caring performance (in this aging population and improved technology era) is needed



Better quality of care older persons



Improve QoL older persons
(individual's **physical & mental** health)

Nursing Education

Nursing education has a **significant impact** on the knowledge and competencies of nurses.



Prospective nurses will **encounter** a highly challenging healthcare practice environment/technology



Nursing schools, institutions, practitioners and students will all **need to cultivate techniques** for dealing with new information, concepts and skills (*Technological Competency*)



Enable the **delivery of a highly complex patient care** in cooperation and collaboration with an inter-professional team

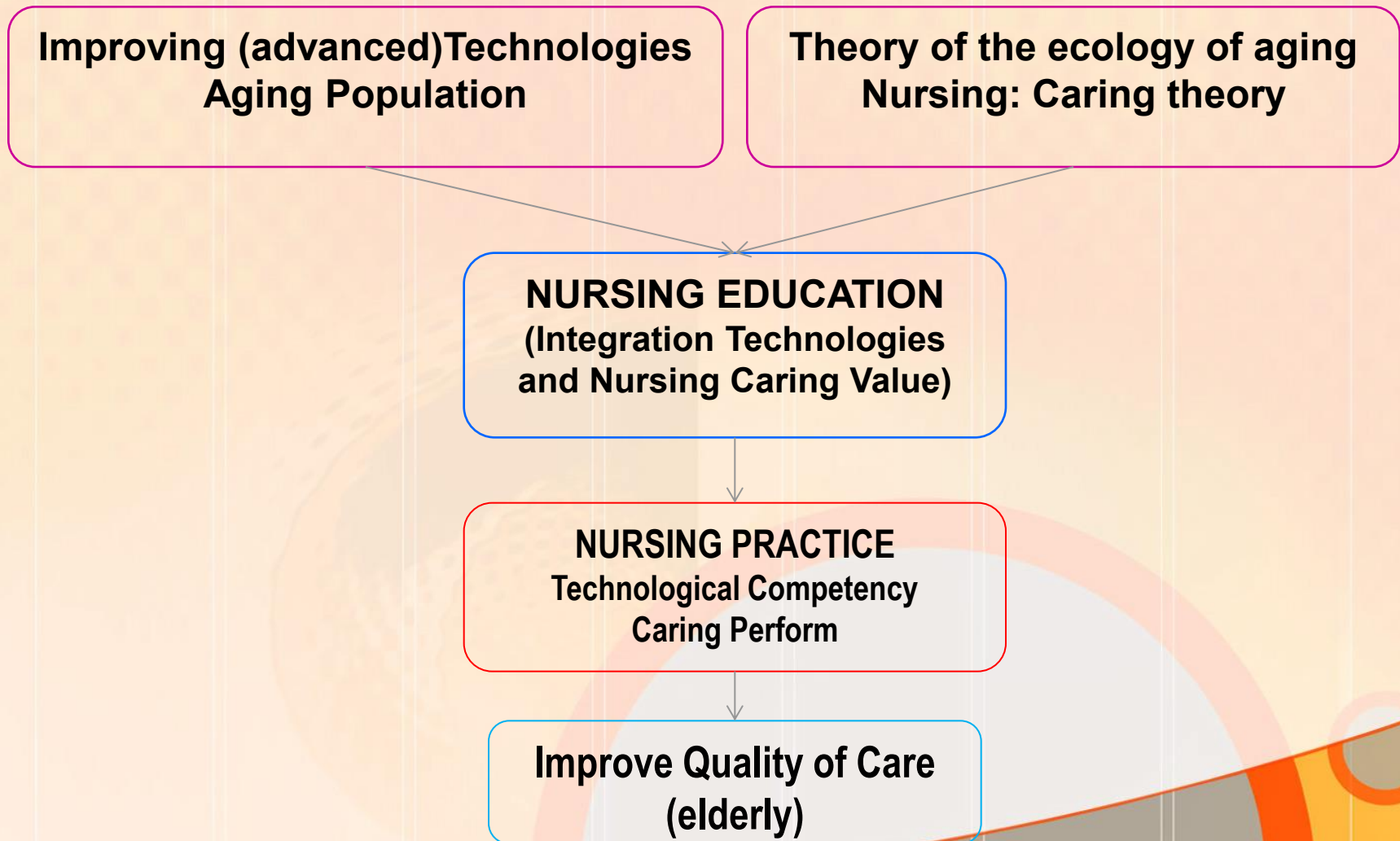
(Jamshidi et al. 2012;Reinhard & Hassmiller, 2012)

Challenges facing nursing education in the advanced healthcare environment

(Fawaz et al., 2018)

- ❑ Nursing Education and practice (**included** of technologies in learning process; classroom, laboratories and clinical practice area)
- ❑ Nursing Education and practice (**emphasize** the caring perform; humanity; empathy, human touch, cultural diversity in learning process and clinical practice area *in* the advanced healthcare environment)
- ❑ **Internship program** (education and practice) to improve knowledge and practice related new technologies and cultural diversity
- ❑ **Inter-professional education (IPE)** to increase collaboration practice
- ❑ New technologies **training** in the hospital (especially for new nurses)

Summary



Conclusion

- ❑ We believed technology improved our quality of care
- ❑ Nurse is not technicians, but technological competencies are needed for nurses in this era in order to improve quality of care.
- ❑ Innovations, adaptation, and adoption are the keys for professional practice of nursing caring.
- ❑ Integration of caring (human interaction/touch, empathy, culture diversity) and health technology would be improved older persons QoL
- ❑ **We (nurses) need to ensure that the human element is not lost in the expansion of technology.**

References

- Amarya S, Singh K & Sabharwal K (2018). Ageing Process and Physiological Changes, Gerontology, Grazia D'Onofrio, Antonio Greco and Daniele Sancarlo, IntechOpen, DOI: 10.5772/intechopen.76249. Available from: <https://www.intechopen.com/books/gerontology/ageing-process-and-physiological-changes>
- Benjamin, R.M. (2010) Multiple Chronic Conditions: A Public Health Challenge. Public Health Reports, 125, 626-627. <https://doi.org/10.1177/003335491012500502>
- Chaudhary B, Kumar R (2017) Role of Technology in Management of Health Care of Elderly. J Gerontol Geriatr Res 6: 391. doi: 10.4172/2167-7182.1000391
- EPTA report (2019). Technologies in care for older people
- Pepito, J.A., Locsin, R.C. & Constantino, R.E. (2019) Caring for Older Persons in a Technologically Advanced Nursing Future. Health, 11, 439-463. <https://doi.org/10.4236/health.2019.115039>
- Pepito, J. T., & Locsin, R. C. (2019). How Can Nurses Drive Technologies of Healthcare in the Asia-Pacific. Asian / Pacific Island Nursing Journal, 3(4).
- Tsai, H. H., Cheng, C. Y., Shieh, W. Y., & Chang, Y. C. (2020). Effects of a smartphone-based videoconferencing program for older nursing home residents on depression, loneliness, and quality of life: a quasi-experimental study. BMC geriatrics, 20(1), 27. <https://doi.org/10.1186/s12877-020-1426-2>
- United Nations, Department of Economic and Social Affairs, Population Division (2020). World Population Ageing 2019 (ST/ESA/SER.A/444).
- Wantonoro, Asmaningrum N & Shyu Y.I.L (2018). Environmental Press In Aging: A Concept Analysis, The 21st East Asian Forum of Nursing Scholars & 11th International Nursing Conferences
- Wantonoro, Shyu Y.I.L, Tsai H.H, Chen M.C, Chen M.L & Wu C.C (2019); Functional status and QoL of older persons with hip fracture following hospital discharge; on an Indonesian sample. (Thesis)
- Wantonoro, Kuo, W.Y,& Shyu, Y.I.L (2020) Changes in Health-Related Quality of Life for Older Persons With Cognitive Impairment After Hip Fracture Surgery: A Systematic Review, Journal of Nursing Research: June Volume 28 - Issue 3 - p e97 doi: 10.1097/jnr.0000000000000371

Thank You



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