EDITORIAL

Check for updates

eISSN 2093-758X
J Korean Acad Nurs Vol.51 No.3, 261
https://doi.org/10.4040/jkan.51301

Integrated and Person-Centered Nursing in the Era of the 4th Industrial Revolution

Kim, Hyoung Suk, Editor-in-Chief in Journal of the Korean Society for Nursing Ethics[1] · Jang, Sun Joo, Associate Editor JKAN[2] · Kim, Jeung-Im, Editor-in-Chief JKAN[1]

[1]School of Nursing, College of Medicine, Soonchunhyang University, Cheonan
[2]Red-Cross College of Nursing, Chung-Ang University, Seoul, Korea

WHAT IS 21st CENTURY NURSING?

Globally, nurses form the backbone of health care provision, and nursing in the 21st century is an integral part of a patient's health care journey. Across the patient experience, nurses work tirelessly to identify and protect the needs of the individual [1]. However, regardless of how nurses pursue integrated care, patients with coronavirus disease 2019 (COVID-19) will only think of frontline nurses wearing Level-D protective suits.

Given this fact, has the content of nursing changed in the context of the pandemic? What kind of nursing care does society now require? What kind of care should be provided to patients, in the midst of the pandemic? Nurses who are exhausted from their constant hard work, rather than content with it, are still considering what form nursing should take today.

PERSON-CENTERED CARE AND NON-NURSING WORK

Nursing can be described as both an art and a science, or as a being with both a heart and a mind. At its heart lies a fundamental respect for human dignity and intuitions about patients' needs. This is supported by its mind, which is shaped by rigorous learning. Given the vast range of specialties and complex skills in the profession, each nurse will have specific strengths, passions, and expertise [1].

Person-centered care (PCC) provides an alternative to the segmented, dehumanized, disease-centered care model. The definition varies across scholars and institutions, and the terms "PCC" and "client-centered care" may be used interchangeably depending on the context. However, a basic definition of PCC includes a "holistic approach," as well as "respectful and individualized care." This continues the nursing tradition of Nightingale, who said, "Nursing differs from medicine in that the focus of nursing is on the patient, not the disease," as well as Carl Rogers, who pioneered the concept of person-centeredness [2].

According to Morgan & Yoder [2], PCC can lead to improved care quality and health outcomes, as well as increased satisfaction with health care. This is achieved by caregivers ensuring that clinical practice is holistic, individualized, respectful, and empowering, and by organizational leaders using vision, commitment, organizational attitudes and behaviors, and shared governance to create and maintain a climate of PCC.

Nevertheless, this was difficult at the end of the 20th cen-

Address reprint requests to : Kim, Jeung-Im
School of Nursing, College of Medicine, Soonchunhyang University, 31 Suncheonhyang 6-gil, Dongnam-gu, Cheonan 31151, Korea
Tel: +82-41-570-2493 Fax: +82-41-570-2498 E-mail: jeungim@sch.ac.kr

Received: June 9, 2021 Revised: June 14, 2021 Accepted: June 15, 2021 Published online June 30, 2021

tury, when many nurses were unable to perform nursing activities that require specialized knowledge and skills because they were performing non-nursing tasks that did not require specialized education. Hospital management thus appears to have been less likely to respond to nurses' concerns or to provide opportunities for their participation in decision-making [3]. This situation is still a reality in Korea, and the proportion of Korean nurses who have left nursing tasks incomplete to non-nursing responsibilities ranged from 81.5% to 92.8% [4-7]; as a result, burnout, turnover intention, and medical errors are increasing [3].

WHAT ARE VALUE-ADDED ACTIVITIES?

According to Upenieks et al. [8], nursing activities fall into the following three categories: 1) value-added activities (VAAs) that are essential and directly beneficial to the patient; 2) necessary activities that are essential to the patient but have no immediate value; and 3) non-value-added activities (NVAAs) that waste time, increasing costs and lowering nurses' job satisfaction. In addition to direct care, VAAs include indirect care such as medication activities, chart review, reporting, teaching, communication with patients' families, care rounds, and care conferences. Necessary activities include documentation and administration (e.g., computer data entry, training, and staff meetings), as well as indirect care such as paging the care team, calling ancillary support, delivering supplies, and escorting patients. NVAAs include personal activities (e.g., lunch and breaktime), waste (e.g., looking for equipment, looking for other people, retrieving equipment, experiencing delays, and waiting for calls), and other nursing processes such as hospitalization, transmission, discharge, dispensing medications, moving patients, waiting for examinations, clinical record management, and communication with doctors [9]. According to the results of domestic studies, NVAAs such as searching, waiting, reworking, reverse-proxy working, repeating, and duplicating occured at a rate of 16% to 30% [10,11], for common reasons such as administrative system, communication problems, and various transfer tasks. Additionally, 87.6% of patient transfer-related issues have been found to be NVAAs [10].

THE IMPACT OF THE 4th INDUSTRIAL REVOLUTION ON HEALTH CARE PROVISION

It is no wonder that advanced healthcare innovations have been propelled by the emergence of Electronic Health Records (EHR), which have been helpful in processing clinical data to provide quality health care information. Despite being patient-centered, a lot of EHR technologies have a fractional consideration of human-computer interaction, which affects health care professionals as end-users. The 4th industrial revolution (4IR) has generated considerable interest among scholars, informaticists, and educational leaders around the globe. 4IR has the potential to situate nursing at the heart of the health sciences and related services, as it calls for major transformations if nurses are to operate at their full potential [12]. Moreover, nurses now spend only 34% of their time in patients' rooms and 26.2% to 40% on record keeping [13,14], which means half their time is being wasted.

In the era of 4IR, leading hospitals have introduced the concept of the "smart hospital" and robots are being used in clinical practice. However, nursing has a unifying ethos [1] in which nurses use their judgement to integrate objective data with the subjective experience of a patient's needs. In this process, nurses do not just consider laboratory results, but decide what to do through critical thinking and reasoning. Therefore, NVAAs can be replaced, but how to do so must be carefully considered, reviewing them not only from the perspective of nurses but taking into account the entire work process of the hospital, as well as the design of the ward and how labor power is structured. This is best understood as a matter that requires nurses' participation in the hospital's core decision-making structure, and demonstrates the professional power of nurses.

WHAT KINDS OF TASKS CAN BE DELEGATED?

According to the American Nurses Association and the National Council of State Boards of Nursing [15], delegation is an essential skill and refers to the process by which a nurse directs another person to perform nursing tasks and activities. The elements constituting delegation include

 https://doi.org/10.4040/jkan.51301

responsibility, authority, and accountability. When delegating, the nurse transfers the responsibility and authority to the delegated person to complete the task but remains accountable for the task's completion and overall outcome.

At the same time, as the meaning and value judgment of nursing behavior is context-dependent, any behavior is affected by the situation the client is in and the relationship between the client and the nurse. The delegation of nursing tasks must be performed according to the professional judgment of nurses regarding when, what, and to whom to delegate, based on the specific working environment and the patient's needs and condition, rather than just the severity of the illness.

In particular, the fact that multitasking, which involves performing two or more tasks simultaneously, is an essential characteristic, of nursing work, and the fact that the ratio of communication and hands-on tasks between the nurse and the patient was the highest at the same time [16], is far from the context of the situation and relationship. It shows that it is not possible to evaluate individual nursing behaviors outside clinical and relational contexts. No matter how simple the task, the time a nurse spends with the patient should not be considered "time to perform simple tasks," but rather time for communicating with and assessing or supporting the patient. For example, the act of helping healthy clients eat can be classified as a daily living assistance task or a simple task, but providing eating assistance to clients with a high risk of aspiration is a professional nursing skill.

If the delegation of nursing work is uniformly determined for each task or activity, important nursing work will be delegated to non-specialists. Even when a specific task is delegated elsewhere within a medical institution or ward, the nurse should retain responsibility and supervisory authority for that task. Inadequate delegation of tasks, can lead to a decrease in VAAs, because it reinforces task-oriented tasks and increases NVAAs. Therefore, delegation in nursing should be based on nurses' judgment, rather than by regulation or mutual decision-making. This guarantees the right of nurses to supervise the task and to strengthen their professional power and leadership.

WHAT ARE THE CORE COMPONENTS OF NURSING THAT MUST BE PRESERVED?

While there has been much research on providing effective nursing care, the literature also shows that some nurses are unsure what exactly constitutes nursing. However, the following duties can be considered the key responsibilities of nurses [1]:

- Performing physical exams and taking health histories before making critical decisions
- Providing health promotion, counseling, and education
- Administering medications and other personalized interventions
- Coordinating care, in collaboration with a wide array of health care professionals

Based on this, it is necessary to identify and reduce NVAAs, and to study delegation, task division, and nursing delivery systems, as well as to vary nursing practices based on care context.

CONCLUSION

The medical and nursing field is being forced to change and innovate in the era of the 4IR, despite having remained fairly constant over the past several decades. Once the smart hospital system is put in place, it may be difficult to change; therefore, nurses must play a pivotal role in the design of this system, and become participating members of the organizations create the hospital environment. This will help demonstrate the competency of nurses who have received professional education. In addition, it will ensure that nurses are able to provide integrated care suitable for each patient, even in situations such as COVID-19 pandemic.

CONFLICTS OF INTEREST

Kim JI and Jang SJ have been the Editors of JKAN. Except for that, we declare no potential conflict of interest relevant to this article.

ACKNOWLEDGEMENTS

None.

FUNDING

This work was supported by Soonchunhyang University.

DATA SHARING STATEMENT

Please contact the corresponding author for data availability.

AUTHOR CONTRIBUTIONS

Conceptualization or/and Methodology: Kim HS & Kim JI & Jang SJ.
Data curation or/and Analysis: Kim HS & Kim JI.
Funding acquisition: Kim JI.
Investigation: Kim HS & Kim JI & Jang SJ.
Project administration or/and Supervision: None.
Resources or/and Software: Kim HS & Jang SJ.
Validation: Kim HS & Kim JI & Jang SJ.
Visualization: Kim HS & Kim JI & Jang SJ.
Writing original draft or/and Review & Editing: Kim HS & Kim JI & Jang SJ.

REFERENCES

1. American Nurses Association (ANA). What is nursing? [Internet]. Silver Spring: ANA; c2021 [cited 2021 Jun 10]. Available from: https://www.nursingworld.org/practice-policy/workforce/what-is-nursing.
2. Morgan S, Yoder LH. A concept analysis of person-centered care. Journal of Holistic Nursing. 2012;30(1):6-15. https://doi.org/10.1177/0898010111412189
3. Aiken LH, Clarke SP, Sloane DM, Sochalski JA, Busse R, Clarke H, et al. Nurses' reports on hospital care in five countries. Health Affairs. 2001;20(3):43-53. https://doi.org/10.1377/hlthaff.20.3.43
4. Park JY, Hwang JI. Relationships among non-nursing tasks, nursing care left undone, nurse outcomes and medical errors in integrated nursing care wards in small and medium-sized general hospitals. Journal of Korean Academy of Nursing. 2021;51(1):27-39. https://doi.org/10.4040/jkan.20201
5. Cho E, Lee NJ, Kim EY, Kim S, Lee K, Park KO, et al. Nurse staffing level and overtime associated with patient safety, quality of care, and care left undone in hospitals: A cross-sectional study. International Journal of Nursing Studies. 2016;60:263-271. https://doi.org/10.1016/j.ijnurstu.2016.05.009
6. Kim EY, Oh YK. Factors influencing care left undone among newly graduated nurses. Journal of East-West Nursing Research. 2019;25(1):33-40. https://doi.org/10.14370/jewnr.2019.25.1.33
7. Kim KJ, Yoo MS, Seo EJ. Exploring the influence of nursing work environment and patient safety culture on missed nursing care in Korea. Asian Nursing Research. 2018;12(2):121-126. https://doi.org/10.1016/j.anr.2018.04.003
8. Upenieks VV, Akhavan J, Kotlerman J. Value-added care: A paradigm shift in patient care delivery. Nursing Economic$. 2008;26(5):294-300.
9. Storfjell JL, Ohlson S, Omoike O, Fitzpatrick T, Wetasin K. Non-value-added time: The million dollar nursing opportunity. Journal of Nursing Administration. 2009;39(1):38-45. https://doi.org/10.1097/NNA.0b013e31818e9cd4
10. Choi JS, Yang YH, Baek HS. Types and causes of non-value-added activities in nursing practice in Korea. Journal of Korean Clinical Nursing Research. 2011;17(3):363-374.
11. Kim MY, Park SA. Study on non-value-added nursing activities in a tertiary hospital. Journal of Korean Academy of Nursing Administration. 2011;17(3):315-326. https://doi.org/10.11111/jkana.2011.17.3.315
12. Haleem A, Javaid M, Vaishya R. Industry 4.0 and its applications in orthopaedics. Journal of Clinical Orthopaedics and Trauma. 2019;10(3):615-616. https://doi.org/10.1016/j.jcot.2018.09.015
13. Schenk E, Schleyer R, Jones CR, Fincham S, Daratha KB, Monsen KA. Time motion analysis of nursing work in ICU, telemetry and medical-surgical units. Journal of Nursing Management. 2017;25(8):640-646. https://doi.org/10.1111/jonm.12502
14. Roumeliotis N, Parisien G, Charette S, Arpin E, Brunet F, Jouvet P. Reorganizing care with the implementation of electronic medical records: A time-motion study in the PICU. Pediatric Critical Care Medicine. 2018;19(4):e172-e179. https://doi.org/10.1097/PCC.0000000000001450
15. National Council of State Boards of Nursing. National guidelines for nursing delegation. Journal of Nursing Regulation. 2016;7(1):5-14. https://doi.org/10.1016/S2155-8256(16)31035-3
16. Yen PY, Kellye M, Lopetegui M, Saha A, Loversidge J, Chipps EM, et al. Nurses' time allocation and multitasking of nursing activities: A time motion study. AMIA Annual Symposium Proceedings. AMIA Symposium. 2018;2018:1137-1146.