

SILVER LINING AT THE CROSS ROADS: A LIVED EXPERIENCES OF NURSES' USING TECHNOLOGY IN CARING

*Ma. Theresa Salinda

**Jainah Rose F. Gubac

***Aimee C. Aguado

****Marcial N. Mesias De V

*****Kharen W. Anggaco

Paper Received: 18.06.2021 / **Paper Accepted:** 25.07.2021 / **Paper Published:** 29.07.2021

Corresponding Author: Ma. Theresa Salinda; Email: msalinda@feu.edu.ph; doi:10.46360/cosmos.et.620212002

Abstract

Background: The health care practitioner face challenges brought by technology. This include introduction of latest technology; it uses and the way to operate certain machines or devices. The nurse can lose their confidence in performing their duty if they are uncertain to some devices. There is no proper flow of work. The nurse must ensure that the patient must understand the effect of technology and its changes in care

Purpose: This study aims to know the lived experiences of nurses in caring patient with the use of latest technology and to know the lived experiences of nurses but aim to present to the patient technology and new devices that have to improve the quality of life for patients and healthcare professionals.

Methods: This study will use van Manen's hermeneutic phenomenological approach to generate and analyze data to describe the experience of five nurses in relation to caring the patient. Van Manen's approach is useful in having knowledge in a reflective situation and promote skill in certain relationship and situations that applied in nursing practice

Results: Technologies have been increasingly used to save and sustain human lives. Significance to knowing the person - a continuous process in which the nurse and the nursed four thematic categories structured the meaning of the experience: Technology in health, technology in caring, technological competency in caring and technological knowing formed thematic categories.

Conclusion: Technological competency as caring in nursing is the harmonious coexistence between technologies and caring in nursing. The illumination of nurses in caring with the use of technological competency is important in harmonization of concepts that places the practice of nursing within the context of modern healthcare and acknowledges that these concepts can co-exist. Understanding the nurses' experiences in rendering the best care to the patient with the use of latest technology.

Keywords: Technology, Health, Caring, Nurse, Competency.

Introduction

Social issues have been arisen as the advance technology boom into the society. Technology address concern in society such as economic, health or medical wellbeing. It is a changing map of reality and its application of knowledge to increase man capabilities to survive live and discover. Technology help nurses to render best care to the patients, it can save life on the other hand technology can put one's patient's life in danger.

The advancement of technology can increase the affectivity of health care delivery system. It is illustrated in the practice of nursing grounded in

the harmonious coexistence between technology and caring in nursing (Locsin, 2015). The harmonization of these concepts places the practice of nursing within the context of modern healthcare and acknowledges that these concepts can co-exist, (Locsin, 2015) [7]. Many health care professional worried in removing human element, on how will function in delivering health care to the patient. It will also emphasize the main roles of nurses with the use of technology which include technological competency in certain uses of machines, equipment's and gadgets that will aid as a tool in rendering health care services. Through technology the health care setting provides electronic records, tele health, online appointment and others. It led

*Graduate School, St. Paul University Philippines, Tuguegarao City, Philippines, Faculty, Institute of Nursing, Far Eastern University, Manila, Philippines.

**Graduate School, St. Paul University Philippines, Tuguegarao City, Philippines.

***Graduate School, St. Paul University Philippines, Tuguegarao City, Philippines.

****Faculty of Mabini College Incorporated, Camarines Norte, Philippines.

*****Graduate School, St. Paul University Philippines, Tuguegarao City, Philippines.

services and nurses approach to operate. One significant factor has been the transition to electronic records. Integrated care records, that draw together accurate patient information, help nurses ensure that the needs of patients are understood. They also safeguard patients by accurately tracking progression throughout various care pathways, and allow test results, diagnoses, procedures, and treatments to be appropriately recorded in order to enhance the quality of patient care.

Objective

To deepen the understanding in assessing the patient needs, to know the lived experiences of nurses in caring patient with the use of latest technology and to present to the patient about technology and new devices that improves the quality of life for patients and healthcare professionals by showing competency in using technology in health care.

Methods

1. Research design

This study used van Manen's hermeneutic phenomenological approach to generate and analyse data to describe the experience of five nurses in relation to caring the patient. Van Manen's approach is useful in having knowledge in a reflective situation and promote skill in certain relationship and situations that applied in nursing practice. It mainly focuses on the experiences of nurse in using technology and in their competency in technological environment.

2. Population and sampling

A Non-Probability Sampling Technique was established in this study specifically the purposive sampling. Crossman (2016) defined purposive sampling as a technique wherein a sample is selected based on characteristics of a population and the objective of the study. Purposive sampling is also known as judgmental, selective, or subjective sampling.

3. Research ethics

The researchers will ensure that the participants can answer the provided informed consent. It will also be ensured that the study participants competently and thoroughly understand the information about the study. The participants will also be free to refuse continuing with the study without any penalty to no loss of benefit to which they are entitled. There will be no participants subject to coercion, under the influence, or inducement.

The language and manner used in the informed consent will be suitable to the participant's capacity and level of understanding. The study's purpose, the procedures to be carried out, expected duration of

participation, and foreseeable risks, discomfort or inconvenience, and direct benefits will also be explicated. They will also be informed that they are free to withdraw from the research at any given time without any loss of benefits. Lastly, the researchers' possible use of the participants' records for future researches will also be mentioned to the participants.

4. Research instrument

An interview guide is the major instrument that was used in the study. It served as a one-on-one interview guide and semi-structured in nature. It also consisted of open-ended questions that helped the informants give their answers in their chosen way or manner. These questions, too, were flexible enough to ensure that it would fit in the informant's feelings or reactions. The aforementioned flexibility also allowed the interviewers to ask follow-up questions and clarifications. More so, an audio recorder with participant's approval is used during the interview for tape records are really useful specially in analyzing the information from the participants.

5. Data collection

The study used primary and secondary data collection procedure. The researchers looked for five qualified informants. The researcher prepared a semi-structured list of questions for the interview via online platform like zoom. The interview was tape recorded with their approval to ensure correct interpretation and analysis. After identifying the study participants, the researchers would then proceed to disseminating the informed consent to those who would be involved in the study. The purpose of the study will be thoroughly explained in the consent as well as how the data to be gathered will be kept with utmost confidentiality. After obtaining the consent, the researchers will proceed with disseminating systematically prepared questionnaires through online platform but ensure to have consider the data privacy and safety of the data information gathered from the participants.

Data Analysis

After collecting the data and conducted interviewed to five participants using the semi-structured type consisting of predetermined questions. Van Manen's hermeneutic phenomenological approach was used to analyze and interpret the interview data. Words, phrases and statements describing the experiences of nurses with the use of highlighted and identified from the interview transcriptions. These statements were isolated thus forming themes reflecting descriptions of the nurses' experiences. All themes that had the similar meaning were grouped together as a thematic category.

All thematic categories were reflected within Van Manen's four lived worlds of corporeality or lived

body; relationality or lived relation; spatiality or lived space; and temporality or lived time. Corporeality is the feeling to body relative to the phenomenon. Relationality is the connection the patients, family, and healthcare providers. Temporality is the feeling of time in the experience of the phenomenon. Spatiality describes as environment or distance space while the patient were caring for their loved ones who were depending sustaining technologies usage in promoting health care in a hospital.

Results and Discussion

Technologies have been increasingly used to save and sustain human lives. Significance to knowing the person - a continuous process in which the nurse and the nursed have understanding, while at the same time affirming, celebrating, and supporting each other. (Locsin, 2015). The participants had open coding interpretation of the result. Four thematic categories structured the meaning of the experience: Technology in health, technology in caring, technological competency in caring and technological knowing these thematic categories were reflective of Van Manen's four lived worlds of body, relation, space, and time.

1. Technology in health

Technology has been great aid as power tool in caring, it increases the patient safety and promote high quality of care. Nursing illuminates this coexistence as the essence of technology in health care premised on machine technologies as a generic concept of objects or things that are mechanical, organic, and electronic, (Locsin, 2017).

"I know that technology is very helpful to my job. It help me to finish my job easier. Even in just simple monitoring of vital status of the patient. I just look on the monitor and listed it. By that I have more time to attain patient in the ICU-R1.

Technology and its health application can organize knowledge and skills in the form of devices to solve health problem and improve quality of life. (WHO, 2015).

1.1 Telemedicine/Telehealth

Telemedicine refers to methods of advancing healthcare based on telecommunications technologies. There are several reasons telehealth is becoming more popular and successful. First, in rural areas where access to hospitals and other health related services are lacking, patients can use their computer to meet virtually with a doctor, (University of Chicago Illinois, 2018).

"Today, with the advancement of technology we can easily have online appointment even in just having

lab test. It is more convenient to the patient then the result will be sent thru electronics like e-mail- R5

Telehealth is the "delivery of health care services, where patients and providers are separated by distance. Telehealth uses ICT for the exchange of information for the diagnosis and treatment of diseases and injuries, research and evaluation, and for the continuing education of health professionals, (WHO, 2016).

2. Technology in caring

Persons are caring by virtue of their humanness (Boykin & Schoenhofer, 2001) [3]. Human have the ability to care not because it required to do in their job but because they are human and caring is intrinsic to all human. Nurses strive to have caring relationships with patients, to discover their stories, and to know them so as to assist them better back to health. Studies have demonstrated that high ratings of patient satisfaction are directly related to patients' perceptions of nurse caring (Palese, et al., 2011; Burtson & Stichler, 2010). Technology is used to know wholeness of person's moment to Moment (Locsin, 2004). Nurses know human beings more fully as persons who participate in their care, rather than simply recipients and object of their care.

"I love my work; I care because I know it's my responsibilities to help other people to reach them and to assist them to attain optimum level of wellness. With the technology right now, it can help me know the condition of my patient. This can also increase patient safety,"- R3

Knowing persons is a process of nursing that allows for continuous appreciation of persons moment to moment (Locsin, 2005). Nurses must be prepared to demonstrate adeptness with technology and also understand the impact that caring has on outcomes. This blending of caring and technical competence facilitates quality nursing practice. (Greger, 2012).

2.1 Technology as completing human beings

According to Locsin 2015, Technologies to meet to re-formulate the ideal human being with the use of technology it can help to save patient's life. Like mechanical prostheses for patient who undergo amputation to help the patient function in their daily life style. The nurse will focus on nursing as shared lived experiences between the nurse and the person being nursed, rather than focusing on fixing the person's deficiencies or missing 'parts.'

"I worked in the operating room for 7 years and with the technology this can help to make the person as whole again despite un predictable situations in their life, still this technology can give hope to someone who is facing difficult situation."-R2

Technological breakthroughs occur at an ever-increasing rate thereby revolutionizing human health and wellness care. Sophisticated technologies in health care, robotics technology, and artificial intelligence, these modal changes in modern healthcare and its methods of delivery have transformed the nursing industry.

3. Technological competency

Thematic category describes that the participants felt fear and unsure about the safety of the technologies intended to save their loved ones' lives while understanding the benefits of these technologies. Advances in technology have been made available to aid nurses perform their jobs and care for patients more efficiently and safely. Nurses are facing challenges in the integration of these new technologies particularly in their practice. However, what if these technological advancements are making human nurses and their practice irrelevant in healthcare.

“As a nurse it's my duty and obligation to be competent enough in using latest technology in order to give the best care.” - R1

“It good that our institution held every month of seminar to enhance our knowledge and give us free trainings for the enhancement of the skills.” - R2

I start taking my masteral degree program right now because for me learning should nonstop, you continue to learn and grow.” - R3

Yeah! We really need to be competent because we can do our job if we are not familiar in using that equipment. - R4

As operating nurse I've witness many operations and we use a lot of technology. It's our responsibility on how to operate it because this is very helpful as tool in helping the patient.” - R5

Technological Competency as Caring in Nursing state that in nursing persons who are dependent on technologies for human care, nurses need to be competent in the use of care technologies and of the persons. (Locsin, 2015).

4. Technological knowing

Knowing persons is a multidimensional process. The nurse and nursed focus on appreciating, celebrating, supporting and affirming each other, while continue mutually knowing each other.

“As a nurse operating machines requires competency and skills. We need to know how those gadgets will functions. Knowing is critical you need to be diligent in learning by that you can acquire competency.” - R2

The process of knowing person is guided by technological knowing in which persons are appreciated as participants in their care rather than as objects of care. The nurse enters the world of the other. In this process, technology is used to magnify the aspect of the person that requires revealing - a representation of the real person. The person's state change moment to moment - person is dynamic, living, and cannot be predicted. (Locsin, 2015) [7].

Both the nurse and the one nursed (patient) plan a mutual care process from which the nurse can organize a rewarding nursing practice that is responsive to the patient's desire for care. The simultaneous practice of conjoined activities which are crucial to knowing persons. In this stage of the process is the alternating rhythm of implementation and evaluation. The evidence of continuous knowing, implementation and participation is reflective of the cyclical process of knowing persons (Locsin, 2005) [6]. The continuous, circular process demonstrates the ever-changing, dynamic nature of knowing in nursing. Knowledge about the person that is derived from knowing, designing, and implementing further informs the nurse and the one nurse (Locsin, 2015) [7].

Conclusion

Technological competency as caring in nursing is the harmonious coexistence between technologies and caring in nursing. The illumination of nurses in caring with the use of technological competency is important in harmonization of concepts that places the practice of nursing within the context of modern healthcare and acknowledges that these concepts can co-exist. Understanding the nurses' experiences in rendering the best care to the patient with the use of latest technology. It also necessary that technological knowing is important in promoting health care. The challenges of nurses to express their technological competencies in caring more fully in their human care. Technological Competency as Caring in Nursing was used to explain and describe the meaning of the experiences caring for patients who were dependent upon technologies for human care, and foster nursing practice as caring in nursing.

Recommendation

The present study has encountered a number of limitations which offer opportunities for future investigations. The researchers recommend to the future researchers to expand the scope of the study by enlarging the population and the findings can be suggest some implication to nursing practice:

- Nurses should support the nurse- patient relationship and share experience of caring with them as they are caring persons and partners of nurses caring.

- Nurse should fully understand the meaning of Technology brings the patient closer to the nurse. Conversely, technology can also increase the gap between the nurse and nursed.
- Nurses should educate the family caregivers about the benefits and harm of life-sustaining technologies, the alarm signals and how the family caregivers can assist the nurses to care about these technologies used in saving their loved ones' lives in the hospital.

Conflict of Interest

The authors declare that there are no significant competing financial, professional, or personal interests that might have influenced the performance or presentation of the work described in this manuscript.

Acknowledgement

The authors would like to extend their sincere gratitude and deepest appreciation to their affiliations and to the participants that led to the possible accomplishment of this research work.

References

1. Alligood, M.R. and Marriner-Tomey, A., (2010). *Nursing theorists and their work* (7th ed.). Maryland Heights, Mo.: Mosby/Elsevier.
2. Alligood, M.R., (2017). Introduction to nursing theory: Its history and significance. In M.R. Alligood (Ed.), *Nursing theorists and their work*, Missouri, 9th ed, (pp. 2-10).
3. Boykin, A., & Schoenhofer, S., (1993). *Nursing as caring; A model for transforming practice*. New York, NY: National League for Nursing Press.
4. Chinn, P.L. and Kramer, M.K., (2018). *Knowledge development in nursing: Theory and process*, 10th ed.
5. Kongsungwan, W. and Locsin, R., (2018). The lived experience of family caregivers caring for patients dependent on life-sustaining technologies. *International Journal of Nursing Sciences*, 5(4).
6. Locsin, R., (2005). *Technological Competency as Caring in Nursing: A Model for Practice*.
7. Locsin, R., (2015). The Co-Existence of Technology and Caring in the Theory of Technological Competency as Caring in Nursing. DOI: 10.2152/jmi.64.160.
8. Macabasag, R. and Dino, M., (2018). Understanding the Essence of Caring from the Lived Experiences of Filipino Informatics Nurses Understanding the Essence of Caring from the Lived Experiences of Filipino Informatics Nurses. <https://doi.org/10.1177/0894318418755732>.
9. Mitchell, M. and Chaboyer, W., (2010). Family centered care: a way to connect patients, families and nurses in critical care: a qualitative study using telephone interviews *Intensive Crit Care Nurs*, 26, 154-160.
10. Saco, F., (2017). Philosophical and Contextual Issues in Nursing Theory Development Concerning Technological Competency as Caring in Nursing. DOI: 10.2152/jmi.66.8.
11. Watson, J., (2012). *Human caring science: a theory of nursing*. Boston: Jones & Bartlett.
12. Watson, J., (2008). *Nursing: the philosophy and science of caring*. (Rev. Ed.). Boulder, CO: University Press of Colorado.