

R. Locsin: 'Technological Competency as an Expression of Caring' Theory Critique

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Abstract

In 2001, Rozzano Locsin created a technology based nursing theory to address the current change towards a more technological nursing profession. This paper will look at this theory in depth. A thorough analysis of how this theory can and is applied to nursing will be discussed. Many aspects of this theory will be examined in respect to the impact it has on nursing.

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Nursing is quickly becoming a profession that relies heavily on technology. This rapidly expanding growth in technology has made it mandatory for nurses to be competent in the use of technology. One nurse theorist, Rozzano Locsin, has put forth his theory of technological competency as an expression of caring. The purpose of this paper is to perform an in depth critique of this theory. The paper will examine the origin of the theory, the unique focus, comprehensiveness, clarity, simplicity, further theory generation, generality, credibility, and the contribution of the theory to nursing.

Origins of the Theory

Rozzano Locsin sought to answer the question of 'what is a nurse' in light of the recent technological advances of medicine (Locsin, 2001). Concern has been established over the development of viewing nursing as an act of accomplishing tasks rather than an intelligent, thoughtful profession (Locsin, 2001). Locsin's theory on technological competency as an expression of caring is grounded in the Nursing as Caring theory of Boykin and Schoenhofer (Locsin, 2001). Nursing as Caring is a general nursing theory stating the primary concern of nursing is caring and it should be uniquely and knowingly expressed in nursing (Boykin & Schoenhofer, 1990). In this theory, the nurse is concerned with enhancing personhood and the 'caring between' of the nurse and nursed (Locsin & Purnell, 2007). Essentially, the nurse's competent ability to use technology is an expression of caring in nursing (Locsin, 2001).

Locsin also found influence from Martin Heidegger; a philosopher who spoke over fifty years ago expressing concern over accepting technology without critical evaluation (Locsin & Purnell, 2007). Heidegger's primary concern was central to the fear of future generation's full acceptance of technology leading to a "standing-reserve that waits solely upon and for the

technology” (Locksin & Purnell, 2007, p. 38). The goal of Locsin’s theory development then became to examine the challenges that nursing faces within the technological environment (Locsin & Purnell, 2007).

Unique Focus

Technology competence was defined by Locsin as “proficiency in devices such as machines, instruments, and tools, and a manifestation of being caring in nursing” (2001, p. 89). Thus nursing’s utilization of these technologies has an ultimate purpose of aiding the nurse in recognition of knowing a person in their wholeness (Locsin, 2001). Locsin believes cautions must be taken to prevent an objectification of the person through such technologies (2007). The objectification of the person thus occurs, Locsin states, if nurses are evaluated only on achievement of tasks (2001). Corresponding with technology, Locsin holds the positivist philosophical perspective that believes a person is appreciated through their component parts; this including sensory data about a person obtained through technology (Locsin & Purnell, 2007). Technological competency therefore enhances the nurse’s ability to fully know the person. However, the reverse also occurs, the technology can increase the gap between the nurse/patient relationship when the nurse does not consciously regard the patient as a whole person consequently causing alienation (Locsin, 2001). Technological knowing is necessary for the ultimate goal of knowing the person as a whole (Parker & Smith, 2010). Through this process of knowing a person through technology, the nurse may have the opportunity to facilitate the patient to find recognition of their wholeness in the moment (Parker & Smith, 2010).

Locsin believes that unification of technology and caring in nursing happens through intentionality (Locsin, 2001). He discussed the concept of responding to ‘calls’ of a patient, in which, the nurse utilizes technical equipment to respond to a specific ‘call’ of a patient as an

expression of caring (Locsin, 2001). Stated by Locsin as “the nurse is challenged to be technologically proficient while responding authentically and intentionally to calls for nursing” (2001, p.93). Technological competency allows for the nurse to engage in a process which by knowing the person as whole in the moment; they will ultimately acknowledge the person as a whole (Locsin & Purnell, 2007). The intentionality of being present in the moment requires the recognition of nursing as caring through technological competency as caring in which “nursing is expressed as the simultaneous, momentary interconnectedness between nurse and the nursed” (Locsin & Purnell 2007, p.41). Further, Locsin states that technological competence as an expression of caring is only fulfilled with an expertise in the technologies of nursing (2007).

Locsin believes the challenge of nursing to be expressing our use of technology in a caring manner, reflective of viewing the person as caring and being whole and complete in the moment (2001). Simply being technologically competent is not nursing; Locsin states the ultimate impersonation happens when technological competency is revealed in a way not grounded in nursing as caring (2001). Nursing, more specifically technological competency as an expression of caring in nursing thus occurs when these technologies are used proficiently with the authentic intention to fully know the person as living and growing in caring (Locsin, 2001). Nursing must find meaningful ways to clearly establish nursing as a practice rather than simply a division under medical or technical practice; integrating technology as caring is a valued aspect of caring in nursing and vital to health care (Locsin, 2001).

Comprehensiveness

The comprehensiveness of any theory can be assessed according to the metaparadigms of the profession – the concepts or phenomena central to a particular discipline (Masters, 2011).

The metaparadigms generally ascribed to the discipline of nursing are:

- *Human Being or Person* – this includes both individuals and human groups (dyads, families, communities and other groups).
- *Nursing* - nursing actions, goals, processes and outcomes.
- *Health* – “The human process of living and dying”
- *Environment* – Human beings’ physical surroundings, the significant individuals and groups in their lives, and their social, political and economic context as they are associated to health and well-being. (Masters, 2011)

A theory’s comprehensiveness is related to the extent of the integration of these metaparadigms into the theory, and the impact of the theory upon each metaparadigm. Locsin’s theory of technology as caring in nursing thoroughly considers each of these paradigms as they relate to technology and nursing care, and clearly define the relationships amongst these paradigms or phenomena.

Human Being

Locsin (2005) ascribes to the definition of human being as that of a “whole” person, complete in the moment and continually growing, changing in response to unique personal conditions, and experiences. This concept, often referred to as *holism*, considers persons as having unity of mind, body and spirit, as more than the sum of their parts and therefore “irreducible” (Purnell, 2005). One of the potential risks of the use of technology in nursing is that by its very nature technology requires a deconstructionist or reductionist perspective of human beings as mere parts or objects (Locsin, 2005). In the context of the technological demands of modern nursing, it is easy for nurses to fall into the practice of objectification of persons and of considering nursing as merely the completion of tasks (Locsin, 2005).

Nursing

Central to Locsin's definition of nursing are the concepts of caring and intentionality. Compassion, confidence, commitment and conscience are all essential components of caring in nursing (Locsin, 2005). Intentionality is an active state of being that "provides the context through which human beings value, order and live out the meaning of their lives in caring relationships among themselves, the environment, and the universe" (Purnell, 2005, p. 52). The function of the nurse is to be with patients in their pursuit of their health goals and desires through caring and intentional relationships (Locsin, 2005).

In the era of modern technology, nursing care is by its very nature a technological process (Locsin, 2005). From monitors and supportive care machines, to implantable biotechnology, every aspect of modern healthcare (and modern life) is permeated with technology. Nurses act as the "interface" between technology and patients, through a patient-centered care and holistic approach, both using technology to know patients more wholly and to help patients more fully understand the role of technology in their care (Locsin, 2005).

Health

Health, according to Locsin (2005), is the "enhancing of personhood," allowing each person to develop and progress moment to moment. It is important to avoid considering persons as existing with a "box of predicted conditions" needing to be fixed; rather, each person is unique and individual, and the definition of health varies from person to person depending on their hopes and desires (Locsin, 2005). Locsin goes on to explain that health is pursued by the patient, with the nurse being present in the process through a "call-to-nursing" from the patient.

Environment

Though the metaparadigm of environment as defined above is quite broad, it can be argued that the scope of environmental consideration in Locsin's theory is quite narrow, specifically focusing on the technological environment. Technology has become an inseparable part of our lives, a "grafted-in aspect of our bodies" (Purnell, 2005, p. 53). Quite simply, technology is everywhere in everything we do. This is particularly true in healthcare, where technological advances continue not just day-to-day but moment-to-moment. In choosing nursing, one is choosing to practice in "a technologically-mediated profession" in which a large portion of nursing activities happen not only with technology, but through it (Purnell, 2005). Technology, as a dominating influence in healthcare, is an immutable part of all we do as nurses (Locsin, 2005).

Relationship of Phenomena

An integral part of Locsin's theory is the relationship between the various metaparadigms and phenomena in nursing. It is not the isolated existence of any one concept but the relationship between them that is truly the substance of any theory. These relationships include that of any individual being with their environment and their health; between health and nursing; between nursing and the environment; and between human beings and nursing (Purnell, 2005). Technology is woven into every aspect of these relationships, and as nurses we function in the midst of all of these relationships. Nurses must be able to function fluently in the technological environment in order to provide care in relationship with their patients. They must be authentically and intentionally present in patients' processes of pursuing health and wholeness, and aid patients in understanding the influence of technology in their care. Nurses must ensure

that technology in no way serves to objectify human beings, but rather is a tool for knowing persons in their completeness (Locsin, 2005).

Clarity and Simplicity

The value of a theory lies in the ability to apply the concepts of the theory to practice. A theory should be clearly stated, with semantic and structural consistency, its meaning easily understood through the chosen words and phrases (Fawcett, 2005). It should also be simple, concise and easy to apply to practice (Masters, 2011).

Though Locsin is consistent in semantics and structure, it was found that there is some confusion in meaning in certain regards. For example, Locsin often refers to the use of technology to know a patient as a “whole” person, while also stating that technology is by its nature a reductionist science, with human beings becoming merely objects made up of parts. He also makes reference to the idea that technological activities often seem uncaring, but also states that reading an EKG can be a caring activity, without clear explanation of exactly how caring can be portrayed through these technical activities. It was difficult to work through these seeming incongruities to reach his true meaning.

Once able to do so, it was found that the central tenet of the theory is actually both very clear and very simple: technological competency as caring is the unification of technology and caring in nursing practice - not necessarily the expression of caring through technology, but along with competence in technologically complex nursing practices (Locsin, 2005). Nurses must be technologically proficient and have the ability to know the person in the moment as a whole being. Nurses must be fully present, intentional and authentic, in the process of coming to

know the patient, and technology can be an important part of this process, a means to an end (Locsin, 2005).

Further Theory Generation

Technology is becoming increasingly central to human existence and certainly to healthcare. Health information technology is a central focus at the moment, with the Institute of Medicine listing this as one of the 5 core competencies for nurses, physicians and other healthcare providers (DeGroot, 2009). Information technology will only become more important over the next two years with the implementation of the Affordable Care Act between now and the year 2014 (Department of Health and Human Services, 2010). Advances in biotechnology also continue every day; a brief search of the literature on implantable biotechnology, for example, includes everything from self-charging glucose monitors, to artificial kidneys, to engineered tissue heart valves and engineered cartilage for laryngeal transplants.

The increase in technological devices and technological use in nursing will certainly lead to further inquiry, ethical consideration and theoretical development. Theoretical considerations will take place at all levels, from middle range theory to overarching metaparadigms. For example, some argue that technology should be included as a separate metaparadigm in and of itself (Purnell, 2005). The requirements of a metaparadigm, states Purnell, are that it must identify a unique domain for inquiry and practice; that it encompasses all the various phenomena of the discipline; that it is “perspective neutral” (unbiased); and that it must be international in scope and substance. It could certainly be argued that technology meets these criteria. As biotechnology, and implantable biotechnology in particular, become more common, question is also raised regarding the ways in which this technology impacts the metaparadigm of human

being – is this technology to be seen as part of the person, of what makes one “whole,” or as part of the external environment (Purnell, 2005)?

With advancements in these and other aspects of healthcare technology, such as health information technology, nurses will continue to find new ways to adapt their care as patients seek health and wholeness in an increasingly complex technological environment. Nursing care will continue to change and develop in the context of technological competency, and further inquiry into the theoretical underpinnings of these changes will be necessary.

Generality

The generality of a theory often “refers to the scope of the concepts and the purpose of the theory” (Alligood & Tomey, 2010, p. 12). Rozzano Locsin’s theory of advancing technology, caring in nursing was originally produced with the critical care nursing environment in mind. The environment of critical care is one that holds the most extensive and life sustaining technologies and consequentially, the most challenging one to produce a technological caring nurse/patient relationship. Due to the present and advancing nature of technology in our health care environment, Locsin’s theory could be applied to practically every nursing environment from the emergency department to school nursing. Lesniak reports that “technology is entering the environment of school nursing, and school nurses need to educate themselves in order to best utilize this technology in their practice” (2005, p. 195). Technology is here to stay and it would behoove us to explore and embrace a theory such as this as we continue to progress in our profession. The applicability of this theory in general nursing practice is reiterated by Locsin as:

The practice of twenty-first century nursing is conducted in environments that rely on complex biomedical machine technology, practice environments that differ vastly from

those of an earlier era. The core of nursing, the basic service of nursing, however has not changed. Caring continues to be the most essential and the most direct expression of nursing service. (2001, p. 1)

Credibility

We must determine the pragmatic adequacy criterion when evaluating the credibility of a model in which we live and work. For a theory to meet this criterion, it should “be socially meaningful by leading to favorable outcomes for those who participate in the actions. Favorable outcomes could include things such as; a reduction in complications, improvement in health conditions, and increased satisfaction” (Fawcett, 2005, p. 134). With the utilization of Locsin’s theory in any type of nursing practice, it can be said the nurse/patient relationship would definitely strengthen and the theory would achieve the status of pragmatic adequacy. To achieve the dichotomy between technological competence and caring, Locsin reminds us that it is imperative that caring is the central expression to the practice of nursing (2001). “The challenge of nursing is expressing technological competency as caring, ably focusing on the other as caring person, whole and complete in the moment, and growing in caring from moment to moment” (Locsin & Purnell, 2007, p. 41).

As we continue to progress in this advancing, technologically savvy environment that we live and work in, Locsin’s theory will continue to become increasingly important to apply into our practice. It is proposed that his theory will serve a need and make a significant contribution to the discipline of nursing. Locsin’s theory is nursing based but could some of the concepts be incorporated into other areas of healthcare? Turner (2011) states “the ability of American medicine to deliver high-quality care at affordable rates will depend, in part, on the ability of

healthcare practitioners to incorporate high technology into their practices” (p. 1). With that being said, we understand and appreciate the fact that technology is all inclusive within the entire scope of healthcare and concepts of Locsin’s theory could potentially be utilized to ensure that “care is focusing on the whole person and complete in the moment and growing in caring from moment to moment” (2001, p. 93).

Locsin’s theory is newer in nature and an insignificant amount of nursing research has been performed and guided by the theory. As of 2011, it has been reported that “future work will establish best practices grounded in the perspective of technological competency as in caring nursing” (Parcells & Locsin, 2011, p. 13). Consequentially, the importance of theory should not be undermined as it has the probability to significantly impact the profession of nursing.

In the journal of *Intensive & Critical Care Nursing* (2011), a phenomenological, qualitative research study was conducted of an adult medical and surgical ICU in Thailand with Locsin’s theory as the foundation. The theory assumes the following:

- Persons are caring by virtue of their humanness. This assumption underscores the understanding that all human beings are caring. Consequently, caring expressed in nursing is the substantive focus of the discipline rather than an act or emotion one may portray towards another person. In this assumption, ‘persons are caring’ is studied as integral to the practice of nursing.
- The ideal of person wholeness is a philosophical perspective, influencing the recognition of human beings as persons, complete beings, regardless of composite parts. This ideal allows the nurse to focus nursing as shared lived experiences between the nurse and the

person being nurses, rather than on ‘fixing’ the person or making good the person’s deficiencies or missing ‘parts’.

- Knowing persons is a continuous process in which the nurse and nursed focus on appreciating, celebrating, supporting and affirming each other. Mutually knowing each other mutually recognizes persons as participants in care, instead of as aspects and objects of our care.
- Technologies of health and nursing are aspects of care that enable nurses to know human beings more fully as persons who participate in their care, rather than simply recipients of our care. (Kongsuwan & Locsin, p. 104)

The findings of this study represent the importance of providing “our critical care nurses with continuing education classes and policy to enhance nurses’ technological competency to produce a nurse who appreciates a persons’ wholeness and to be complete in the moment” (Kongsuwan & Locsin, 2011, p. 109).

Contribution of the Theory

As previously stated, due to the newness of this theory it has been difficult to find nursing research studies that have been conducted utilizing Locsin's theory as the foundation. An additional nursing article that has been produced was published in the International Journal for Human Caring. The conclusion of this article again reiterates the importance of viewing” the patient as participants in their care, rather than as objects of care” (Locsin & Purnell, 2007, p. 38). As we recall, Locsin’s theory is founded in the principles of Heidegger and a phenomenological study was conducted in 2008 to “focus on the everyday lived experiences of the critical care nurse and was congruent with the belief that past experience in the critical care area is crucial to the study” (McGarth, 2008, p. 1098). The conclusion of the study showed that

“experienced critical care nurses are able to transcend the obtrusive nature of technology to deliver expert caring to their patients. However, the journey to proficiency in technology is very demanding and the novice nurse may have difficulty in caring combined with technology” (McGarth, 2008, p. 1096).

Conclusion

The environment in which nurses practice today is remarkably different from the way they practiced just a few years ago. As nursing heads in the direction of becoming more technology-focused, this theory will only become more relevant. In the current climate of nursing it is all too important for a nurse to be competent in the use of technology. The lack of competence with the use of technology places patients at risk and has a direct impact on the quality of care that they receive. Technology is only going to become more integrated and complicated and this theory works to address how it impacts patient care.

References

- Alligood, M.R. & Tomey, A.M. (2010). *Nursing theorists and their work*. (7th ed.) Maryland Heights, MO: Mosby/Elsevier.
- Boykin, A., Schoenhofer, S. (1990). Caring in nursing: analysis of extant theory. *Nursing Science Quarterly*, 3(4), 149-155. doi:10.1177/089431849000300406
- DeGroot, H. (2009). Overview and summary: Nursing technologies: Innovation and implementation. *OJIN: The Online Journal of Issues in Nursing*, 4(12). doi: 10.3912/OJIN.Vol14No02ManOS
- Department of Health and Human Services (2010). *Health information technology: Initial set of standards, implementation, specifications, and certification criteria for electronic health record technology; final rule*. Retrieved from <http://www.gpo.gov/fdsys/pkg/FR-2010-07-28/pdf/2010-17210.pdf>
- Fawcett, J. (2005). Criteria for evaluation of theory. *Nursing Science Quarterly*, 18(2), 131-135. doi: 10.1177/0894318405274823
- Kongsuwan, W., & Locsin, R. C. (2011). Thai nurses' experience of caring for persons with life-sustaining technologies in intensive care settings: A phenomenological study. *Intensive & Critical Care Nursing*, 27(2), 102-110. doi:10.1016/j.iccn.2010.12.002
- Lesniak, R. (2005). Caring through technological competency. *The Journal of School Nursing* 21(4) p. 194-195. doi:10.1177/10598405050210040201
- Locsin, R. (2001). *Advancing technology, caring, and nursing*. Westport, Connecticut: Auburn House.

- Locsin, R. C. (2005). Advancing technology, caring and nursing. In Locsin, R. C. (Ed.), *Technological competency as caring in nursing: A model for practice*, (pp. 88-94). Sigma Theta Tau International: Indianapolis, IN.
- Locsin, R. & Purnell, M. (2007). Rapture and suffering with technology in nursing. *International Journal for Human Caring*, 11(1), 38-43.
- Masters, K. (2011). *Nursing theories: A framework for professional practice*. Burlington, MA: Jones and Bartlett Learning.
- McGrath, M. (2008). The challenges of caring in a technological environment: critical care nurses' experiences. *Journal of Clinical Nursing*, 17: 1096–1104. doi: 10.1111/j.1365-2702.2007.02050.x
- Parcells, D., & Locsin, R. (2011). Development and psychometric testing of the Technological Competency as Caring in Nursing Instrument. *International Journal for Human Caring*, 15(4), 8-13.
- Parker, M., Smith, M. (2010). *Nursing theories and nursing practice*. Philadelphia, Pennsylvania: F. A. Davis Company.
- Purnell, M. J. (2005). Inside a trojan horse: Technology, intentionality and metaparadigms of nursing. In Locsin, R. C. (Ed.), *Technological competency as caring in nursing: A model for practice*, (pp. 41-68). Sigma Theta Tau International: Indianapolis, IN.
- Turner, F. (2011). Use HITECH as directed. *Health Management Technology*, 32(10), 1-2.