The Need for International Nursing Diagnosis Research and a Theoretical Framework

Article *in* International Journal of Nursing Terminologies and Classifications · March 2008

DOI: 10.1111/j.1744-618X.2007.00076.x · Source: PubMed

International Journal of
Nursing Terminologies and Classifications

Perspective

The Need for International Nursing Diagnosis Research and a Theoretical Framework

Margaret Lunney, PhD, RN

PURPOSE. *To describe the need for nursing diagnosis research and a theoretical framework for such research.*

DATA SOURCES. *A linguistics theory served as the foundation for the theoretical framework.*

DATA SYNTHESIS. *Reasons for additional nursing diagnosis research are: (a) file names are needed for implementation of electronic health records, (b) international consensus is needed for an international classification, and (c) continuous changes occur in clinical practice. A theoretical framework used by the author is explained.*

CONCLUSIONS. *Theoretical frameworks provide support for nursing diagnosis research. Linguistics theory served as an appropriate exemplar theory to support nursing research.*

IMPLICATION. *Additional nursing diagnosis studies based upon a theoretical framework are needed and linguistics theory can provide an appropriate structure for this research.*

Search terms: *Electronic health record, linguistic theory, nursing diagnosis, research, standardized nursing languages, theoretical framework*

doi: 10.1111/j.1744-618X.2007.00076.x

Margaret Lunney, PhD, RN, is the Chair of the NANDA International Research Committee and a Professor and Coordinator of Graduate Programs of the College of Staten Island, the City University of New York.

Nursing diagnosis research is critically needed for international use of the NANDA International (NANDA-I) classification (NANDA-I, 2007). Further development of this international classification through research is needed so that nurses anywhere in the world can communicate with one another about the basic science of nursing, i.e., study of the health-related phenomena for which nurses are responsible to help people.

The NANDA-I classification or taxonomy of nursing diagnoses is the equivalent of the International Classification of Diseases (World Health Organization [WHO], n.d.). Scientific classifications such as these are standardized systems to organize the phenomena of interest to the science. Classifications such as these require ongoing development and refinement through research.

Research studies, however, do not help to build knowledge unless they are connected to one or more theories. Theories and theoretical frameworks help to make sense of the world and provide meaning to research findings (Polit & Beck, 2007). For this reason, most often research is done to test theory or to build theory. Nursing and other world views are expressed through theories or theoretical frameworks. For example, Sternberg (1997) and other theorists describe a theory of intelligence that people of the same age, education, and background differ in basic thinking abilities and that thinking abilities can be improved through instruction and effort. That theory of intelligence can serve as a framework to design studies to help nurses improve their thinking, evaluate existing knowledge, implement studies to test the theory, and when studies are completed, the results are evaluated in the context of the same theory to describe, explain, or predict nurses' thinking behaviors. The purpose of this paper is to describe the ongoing need for nursing

diagnosis research studies in every country and to provide a theoretical framework for such research.

Need for Nursing Diagnosis Research

The NANDA-I is a classification of human responses or experiences related to health (NANDA-I, 2007). Since this classification was only started in 1973, much more research is needed with a variety of populations to add new diagnoses and refine existing diagnoses. To accomplish this, nurses need to know about the research processes that can be used to validate nursing diagnoses. This is because validation studies are the foundation for future studies to show relations of nursing diagnoses and other phenomena, such as which nursing diagnoses are important for populations with specific medical diagnoses or which diagnoses are important for a specific age group.

Yet, learning to conduct any type of research is one of the most complex topics to learn in any field, including nursing. Learning research processes is like learning a new language with very precise meanings. Because of the complexity of good research, the best research is done by research teams. The mental capacities of integrated teams are needed. Even those who are doing studies as part of master's or doctoral degree programs work with two or three expert advisors who help them to refine the research process. Nurses who want to do nursing diagnosis research should identify others to work with them.

To adequately support an international classification, nursing diagnosis research is needed in every country for three reasons: (a) the electronic health record is inevitable and file names are needed for computerized systems. The NANDA-I classification contains the file names for the phenomena of concern. (b) The usefulness of a scientific classification depends on broad consensus. For an international classification, this means consensus in every country. (c) A scientific taxonomy is only useful if it reflects the continuous changes that occur in clinical practice. Research is needed to describe changes in clinical practice.

The Electronic Health Record Is Inevitable

Electronic health records (EHRs) are being implemented worldwide to enable the aggregation of health-related data for purposes of ensuring quality-based care (WHO, 2006). The expectation is that the associated changes in documentation will keep patients safe (Institute of Medicine, 2004). This is because it will be so much easier to identify healthcare issues and concerns and to describe which interventions work or do not work to help people be healthy.

With computerized systems, file names are used for information storage. In order to compare and contrast data across different locales, the file names must be standardized. With standardized nursing diagnoses, we will be able to compare rates of nursing diagnoses across local, regional, and national communities, e.g., rates of Contamination, a new community diagnosis, and Sedentary Lifestyle, a new diagnosis that applies to individuals (NANDA-I, 2007).

With EHRs, it is much easier to track nursing diagnoses and to perform the research needed to support accuracy of nursing diagnoses (Lunney, 2008). With the visibility of diagnoses in EHRs, nurses intervene for diagnoses made by other nurses. This provides opportunities to validate accuracy of diagnoses and to provide appropriate care as well as economies of time and cost of care.

Need for Global Consensus

The usefulness of an international classification depends on global consensus, which is established through research. For example, the diagnosis of Ineffective Coping was approved by NANDA-I decades ago, but research still needs to be done to validate that the defining characteristics and related factors initially identified are also relevant and useful for international communities. Research has been done to show the importance of each diagnosis, but the studies have been limited in scope. Studies of each diagnosis are needed with many different populations, including

different ages, genders, and cultures. Also, the NANDA-I classification is evolutionary and thus incomplete, even though it is the most comprehensive classification in existence today. New diagnoses need to be developed. In order for new diagnoses to be approved by NANDA-I, they must be based on research.

Changes in Clinical Practice Are Continuous

Changes in clinical practice are continuous, thus studies are needed to identify, describe, explore, explain, predict, and control clinical practice patterns. With the continual clinical changes that occur, the growth and development of the NANDA-I classification also needs to be continuous. An expansion of the numbers and types of nursing research studies will support the ongoing development of nursing diagnoses for international use.

Theoretical Framework for Nursing Diagnosis Research

The following theoretical framework (Lunney, 2003) is based on the linguistic theory of S. I. Hayakawa (Hayakawa & Hayakawa, 1990). This theory provides useful explanations for the importance of developing scientific classifications. Hayakawa's theory explains the connections among naming, thought, and action. These connections are critically important because nursing actions are the basis for quality care.

Hayakawa states that language is a fundamental mechanism of survival for any group, which, of course, includes the discipline of nursing. Language is the most highly developed of symbolic processes, and a tool for communication with one's self and others. Language is the source of cooperative actions with others. People (or we) must be able to communicate their thoughts in order to cooperate with others. For nurses, this means cooperation with patients, other nurses, and members of other disciplines. Language is a tool to improve the human experience and is needed to accomplish any goals pertaining to human experiences.

Maps to the Territory

The words and phrases of any language, including that of nursing diagnoses, are maps to the territory, in this case, maps to the territory of nursing. Many maps are needed to "know" a territory, e.g., a map of the terrain, a map of railroad connections, and a map of subway lines. Yet, in any territory, if all possible maps about the territory are put together, the compilation of maps will not fully represent the territory. The need for many maps applies to nursing diagnosis in that many nursing diagnoses and defining characteristics of diagnoses need to be included in an international classification.

Also, no matter how many and what kinds of maps or diagnoses are developed, it is impossible to fully represent the holistic nature of human experiences. The experience of humans seeking health will always be greater and more complex than can be expressed with the words in a classification system. For any scientific discipline such as nursing, the goal is to make "good maps" of the territory of human experiences.

The Meanings of Words

The meanings of words are known through context. So for nursing diagnoses, the meanings of specific diagnoses are embedded in patient and family experiences, e.g., culture, religion, meanings to the person and family. For example, the meanings of words such as coping, power, and hope differ in many cultures. Human beings are aware of, and become knowledgeable about, various contexts through experience. Nurses, for example, learn to integrate patient contexts with specific knowledge of nursing diagnoses by working with a variety of people who experience these phenomena.

The meanings of words are always both extensional and intensional. Extensional refers to the physical thing itself, and intensional refers to the connotations of individual persons, or ideas about the thing. Prejudice occurs when the focus is on the intensional and not on

Table 1. Human Beings Abstract From Their Experiences and Observations (Hayakawa & Hayakawa, 1990)

8. Wealth
7. Asset
6. Farm asset
5. Livestock
4. Cow
3. Bessie
2. Perception
1. Process

Words are abstractions of similarities, not differences (read from bottom up).

the extensional as both the extensional and intensional need to be integrated. Thus, without nursing diagnoses, nurses' interpretations of patient data are acted upon without consideration of the extensional meanings of these interpretations. Having the availability of nursing diagnoses enables nurses to use both intensional and extensional meanings. Words do not have exactly the same meaning twice, therefore even though the meanings of nurses' diagnoses are standardized, their meanings will differ slightly when they are used with different individuals.

Thinking and Names

It is not possible to think without names because the names of things provide the content for thinking about them. Thinking about things also influences the names used for these things. Thus there is a reciprocal relationship between naming and thinking.

Humans experience, and think about, only a small fraction of phenomena, and name these experiences. For example, Hayakawa and Hayakawa (1990) use the example of Bessie the cow.

People may experience the lights and shadows of Bessie's exterior, her motions, her general configuration, the noises she makes, and the sensations of touching her. But, as a living organism, Bessie is constantly changing and no person can possibly know the whole of Bessie, and, even if possible, she would change and the description would not be accurate.

When and if experiences of Bessie and other things have names and the names are known, people can think about them and communicate their thoughts to others. This is because humans think with words and need words to think about experiences. The objects of human experiences must be extracted, so it makes no sense to distrust abstractions (e.g., nursing diagnoses).

Levels of Abstractions

Abstractions occur from basic to complex. It is important to be aware of abstracting, because of the prejudices that can occur with using only our own connotations of things, and not comparing these connotations with the physical world.

Table 1 is a depiction of Hayakawa's abstraction ladder (Hayakawa & Hayakawa, 1990). He says that humans abstract and name things at various levels of abstraction. Words and phrases, such as Bessie the cow, are abstractions of the similarities among things, not the differences. This abstraction ladder shows Bessie as a living process. Bessie is perceived by a human and this perception is named Bessie, which is thought to be a cow. A cow is a type of livestock and so on up the ladder.

Hayakawa says that words can never capture the full essence of any phenomena, even something as simple as a cow. Instead, words represent ways to capture an idea of something for communication with others. Words and definitions have no meaning in and

Table 2. Example of an Abstraction Ladder Applied to Nursing Diagnosis (Gigliotti, 2001)

8. Neuman Systems Model
7. Lines of defense
6. Functional health patterns
5. Cognitive-perceptual pattern
4. Decision Making
3. Decisional conflict re: feeding (nurses' diagnosis)
2. Cheryl's breastfeeding
1. Breastfeeding experience

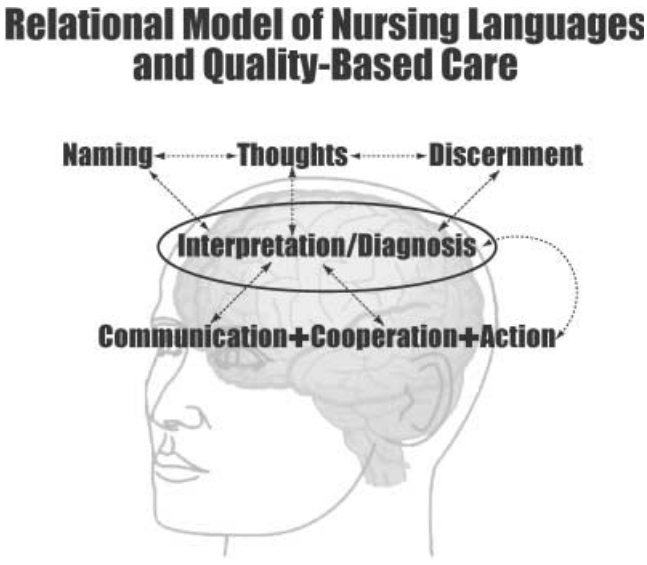
Words are abstractions of similarities, not differences (read from bottom up).

of themselves, but the meaning is derived from a consensus among people that a specific word or phrase expresses a specific idea or thought about something.

Nurses also abstract from their experiences of individuals, families, and communities as they pursue the goal of helping people to achieve health. An example of this process is a nurse's observation and recording of a patient's demeanor, color, and signs of distress. There are millions of relevant abstractions made by nurses at various levels of complexity. Data that nurses gather from their senses are a basic level of abstraction, such as the patient's color, temperature, pulse, and respiration. Inferences are the next level of abstraction and are nurses' attempts to assign meaning to data.

Table 2 is an example of an abstraction ladder applied to a patient in a nursing case study, Cheryl (Gigliotti, 2001). Nurses who work with postpartum women, for example, routinely observe these women for their experiences with breastfeeding. Because research has shown that breastfeeding is very good for the baby, the nurses' goal is to help as many postpartum women as possible to choose breastfeeding and to be successful. After data collection, the nursing diagnosis for Cheryl and her family was Decisional Conflict and this diagnosis was treated by the nurse. The diagnosis of Decisional Conflict was drawn from the literature on decision making. The nurse was concerned about decision making because she was using the functional health pattern assessment framework which includes

Figure 1. Relational model of nursing languages and quality-based care



the cognitive–perceptual pattern. She also used the Neuman Systems nursing model for practice. At each level of abstraction, the nurse brought in personal knowledge and perceptions as well as knowledge and meanings from the external world.

With this theoretical framework for nursing diagnosis, depicted in Figure 1, the basic premise is that naming

the scientific phenomena of nursing is important so that we can think about these phenomena and plan how to help people with these phenomena. A foundational premise is that humans think with words and must name things such as data, and connect them with higher level abstractions, such as nursing diagnoses, in order to think about them and discern differences and similarities among them. When names are provided, events can be interpreted. When the names for interpretations or diagnoses are communicated to others, it is possible to work together to accomplish goals. The designation of actions based upon interpretations enables nurses to intervene appropriately.

Conclusions

Nurses can use these ideas to explain to others the importance of nursing diagnosis and nursing diagnosis research. If naming the phenomena of concern to nursing is important in order to think about these phenomena and act on them, then it is also important to conduct research studies to establish the validity of these diagnoses and their defining characteristics for a wide variety of populations. The goal is for nurses to create a classification of names that is well organized, and relevant to a broad base of populations.

Many types of nursing diagnosis research are needed (Lunney, 2007). The science of nursing needs a broad base of research to support its diagnostic language. There is no limit to the types of research that need to be done. Nurses should be guided by their own personal interests, the availability of patients and nurses as participants, the interests of others who are willing to work with them, and the state of the science in relation to specific diagnoses. For example, if little is known about a diagnosis, a qualitative study should be done. If the defining characteristics are already stated in the literature from previous studies, consider developing a data collection instrument to conduct a quantitative clinical study. If the priority is to know more about connections among diagnoses, interventions, and outcomes, consider an action research study with nurses or patients or a grounded theory study.

Nurses worldwide must work together to design and conduct studies of new and existing diagnoses. Just as for geese that fly in V formation, for example, the workload will be greatly reduced if nurses work in collaboration with one another. As each goose flaps its wings, it creates uplift for the goose immediately following. As a group, geese have a 71% greater flying range than if one flies alone. Also, when the head goose gets tired, it rotates back in formation and another goose takes "point." Just like the point goose, many nurses have been doing the work of terminologies and classifications for 25 years and there is a need for continual revitalization. More participation and participation by all levels and specialties of nurses is essential to keep the work of terminologies and classification in nursing evolving and growing. Just like geese, nurses who share a common direction and a sense of community can get where they are going more quickly and more effectively because they are traveling on the thrust of one another.

Acknowledgments. This theoretical framework was originally published in a book that was edited by Dochterman and Jones and published by www.nursesbooks.org (Lunney, 2003). It is updated and presented here to serve as a theoretical framework for nursing diagnosis research. This paper was adapted from a paper presented at the AENTDE conference in Valladolid, Spain, October 26 and 27, 2007.

Author contact: margell@si.rr.com

References

Gigliotti, E. (2001). Integration of Neuman's model with the theory of nursing diagnosis in postpartum nursing. In M. Lunney (Ed.), *Critical thinking and nursing diagnosis: Case studies and analyses* (pp. 114–115, 224–229). Philadelphia: NANDA International.

Hayakawa, S. I., & Hayakawa, A. R. (1990). *Language in thought and action* (5th ed.). San Diego: Harvest Original, Harcourt & Brace.

Institute of Medicine. (2004). *Keeping patients safe*. Washington, DC: National Academy Press.

Lunney, M. (2003). Theoretical explanation for combining NANDA, NIC and NOC. In J. McCloskey Dochterman & D. Jones (Eds.), *Unifying nursing languages*. Washington, DC: Nursesbooks.org.

Lunney, M. (2007). Nursing diagnosis and research. In NANDA International (Ed.), *Nursing Diagnoses: Definitions and classifications, 2007–2008* (pp. 308–313). Philadelphia: NANDA International.

Lunney, M. (January 31, 2008). Critical need to address accuracy of nurses' diagnoses. *OJIN: The Online Journal of Issues in Nursing, 13*(1).

NANDA International. (2007). *Nursing diagnoses: Definitions and classifications, 2007–2008*. Philadelphia: Author.

Polit, D. F., & Beck, C. T. (2007). *Nursing research: Generating and assessing evidence for nursing practice* (8th ed.). Philadelphia: Lippincott, Williams and Wilkins.

Sternberg, R. J. (1997). *Successful intelligence: How practical and creative intelligence determine success in life*. New York: Plume Books.

World Health Organization. (n.d.). International classification of diseases. Retrieved October 13, 2007, from http://www.who.int/classifications/icd/en/

World Health Organization. (2006). *Electronic health records: A manual for developing countries*. Geneva, Switzerland: Author.