Standardized Nursing Language: What Does It Mean for Nursing Practice?

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Abstract

Use of a standardized nursing language for documentation of nursing care is vital both to the nursing profession and to the bedside/direct care nurse. The purpose of this article is to provide examples of the usefulness of standardized languages to direct care/bedside nurses. Currently, the American Nurses Association has approved thirteen standardized languages that support nursing practice, only ten of which are considered languages specific to nursing care. The purpose of this article is to offer a definition of standardized language in nursing, to describe how standardized nursing languages are applied in the clinical setting, and to explain the benefits of standardizing nursing languages. These benefits include: better communication among nurses and other health care providers, increased visibility of nursing interventions, improved patient care, enhanced data collection to evaluate nursing care outcomes, greater adherence to standards of care, and facilitated assessment of nursing competency. Implications of standardized language for nursing education, research, and administration are also presented.

Key words: communication, North American Nursing Diagnosis Association (NANDA), Nursing Intervention Classification (NIC), Nursing Outcome Classification (NOC), nursing judgments, patient care, quality care, standardized nursing language


Recently a visit was made by the author to the labor and delivery unit of a local community hospital to observe the nurses' recent implementation of the Nursing Intervention Classification (NIC) (McCloskey-Dochterman & Bulechek, 2004) and the Nursing Outcome Classification (NOC) (Moorehead, Johnson, & Maas, 2004) systems for nursing care documentation within their electronic health care records system. During the conversation, one nurse made a statement that was somewhat alarming, saying, "We document our care using standardized nursing languages but we don't fully understand why we do." The statement led the author to wonder how many practicing nurses might benefit from an article explaining how standardized nursing languages will improve patient care and play an important role in building a body of evidence-based outcomes for nursing.

Most articles in the nursing literature that reference standardized nursing languages are related to research or are scholarly discussions addressing the fine points surrounding the development or evaluation of these languages. Although the value of a specific, standardized nursing language may be addressed,
application to nursing practice.

Practicing nurses need to know why it is important to document care using standardized nursing languages, especially as more and more organizations are moving to electronic documentation (ED) and the use of electronic health records. In fact, it is impossible for medicine, nursing, or any health care-related discipline to implement the use of ED without having a standardized language or vocabulary to describe key components of the care process. It is important to understand the many ways in which utilization of nursing languages will provide benefits to nursing practice and patient outcomes.

Norma Lang has stated, "If we cannot name it, we cannot control it, practice it, teach it, finance it, or put it into public policy" (Clark & Lang, 1992, p. 109). Although nursing care has historically been associated with medical diagnoses, nurses need an explicit language to better establish their standards and influence the regulations that guide their practice.

A standardized nursing language should be defined so that nursing care can be communicated accurately among nurses and other health care providers. Once standardized, a term can be measured and coded. Measurement of the nursing care through a standardized vocabulary by way of an ED will lead to the development of large databases. From these databases, evidence-based standards can be developed to validate the contribution of nurses to patient outcomes.

The purpose of this article is to offer a definition of standardized language in nursing, to describe how standardized nursing languages are applied in the clinical arena, and to explain the benefits of standardizing nursing languages. These benefits include: better communication among nurses and other health care providers, increased visibility of nursing interventions, improved patient care, enhanced data collection to evaluate nursing care outcomes, greater adherence to standards of care, and facilitated assessment of nursing competency. Implications of standardized language for nursing education, research, and administration are also presented.

Standardized Language Defined

Keenan (1999) observed that throughout history nurses have documented nursing care using individual and unit-specific methods; consequently, there is a wide range of terminology to describe the same care. Although there are other more complex explanations, Keenan supplies a straightforward definition of standardized nursing language as a "common language, readily understood by all nurses, to describe care" (Keenan, p. 12). The Association of Perioperative Registered Nurses (AORN) (n.d.) adds a dimension by explaining that a standardized language "provides nurses with a common means of communication." Both convey the idea that nurses need to agree upon a common terminology to describe assessments, interventions, and outcomes related to the documentation of nursing care. In this way, nurses from different units, hospitals, geographic areas, or countries will be able to use commonly understood terminology to identify the specific problem or intervention implied and the outcome observed. Standardizing the language of care (developing a taxonomy) with commonly accepted definitions of terms allows a discipline to use an electronic documentation system.

Consider, for example, documentation related to vaginal bleeding for a postpartum, obstetrical patient. Most nurses document the amount as small, moderate, or large. But exactly how much is small, moderate, or large? Is small considered an area the size of a fifty-cent piece on the pad? Or is it an area the size of a grapefruit? Patients benefit when nurses are precise in the definition and communication of their assessments which dictate the type and amount of nursing care necessary to effectively treat the patient.

The Duke University School of Nursing website <www.nursing.duke.edu> has a list of guidelines for the nurse to use for evaluation of a standardized nursing language. The language should facilitate communication among nurses, be complete and concise, facilitate comparisons across settings and
locales, support the visibility of nursing, and evaluate the effectiveness of nursing care through the measurement of nursing outcomes. In addition to these guidelines the language should describe nursing outcomes by use of a computer-compatible coding system so a comprehensive analysis of the data can be accomplished.

**Current Standardized Nursing Languages and Their Applications**

The Committee for Nursing Practice Information Infrastructure (CNPII) of the American Nurses Association (ANA) has recognized thirteen standardized languages, one of which has been retired. Two are minimum data sets, seven are nursing specific, and two are interdisciplinary. The ANA (2006b) Recognized Terminologies and Data Element Sets outlines the components of each of these languages.

The submission of a language for recognition by CNPII is a voluntary process for the developers. This terminology is evaluated by the committee to determine if it meets a set of criteria. "The criteria, which are updated periodically, state that the data set, classification, or nomenclature must provide a rationale for its development and support the nursing process by providing clinically useful terminology. The concepts must be clear and ambiguous, and there must be documentation of utility in practice, as well as validity, and reliability. Additionally, there must be a named group who will be responsible for maintaining and revising the system" (Thede & Sewell, 2010, p. 293).

Another ANA committee, the Nursing Information and Data Set Evaluation Center (NIDSEC), evaluates implementation of a terminology by a vendor. This approval is similar to obtaining the good seal of approval from Good Housekeeping or the United Laboratories (UL) seal on products. The approval signifies that the documentation in the standardized language supports the documentation of nursing practice and conforms to standards pertaining to computerized information systems. The language is evaluated against standards that follow the Joint Commission's model for evaluation. The language must support documentation on a nursing information system (NIS) or computerized patient record system (CPR). The criteria used by the ANA to evaluate how the standardized language(s) are implemented, include how the terms can be connected, how easily the records can be stored and retrieved, and how well the security and confidentiality of the records are maintained. The recognition is valid for three years. A new application must be submitted at the end of the three years for further recognition. Some, but not all of the standardized languages are copyrighted. (The previous paragraphs were updated 2/23/09. See previous content.)

Vendors may also have their software packages evaluated by NIDSEC. The evaluation is a type of quality control on the vendor. An application packet must be purchased, priced at $100, then the fee for the evaluation is $20,000 (American Nurses Association, 2004). The only product currently recognized is Cerner Corporation CareNet Solutions (American Nurses Association, 2004). The recognition signifies that the software in the Cerner system has met the standards set by NIDSEC. The direct care/bedside nurse must understand the importance of the inclusion of standardized nursing languages in the software sold by vendors and demand the use of a standardized nursing language in these systems.

**Benefits of Standardized Languages**

The use of standardized nursing languages has many advantages for the direct care/bedside nurse. These include: better communication among nurses and other health care providers, increased visibility of nursing interventions, improved patient care, enhanced data collection to evaluate nursing care outcomes, greater adherence to standards of care, and facilitated assessment of nursing competency. These advantages for the bedside/direct care nurse are discussed below.

**Better Communication among Nurses and Other Health Care Providers**

Improved communication with other nurses, health care professionals, and administrators of the institutions in which nurses work is a key benefit of using a standardized nursing language. Physicians realized the value of a standardized language in 1893 (The International Statistical Classification of Diseases and Related Health Problems, 2003) with the beginning of the standardization of medical diagnosis that has become the International Classification of Diseases (ICD-10) (Clark & Phil, 1999). A more recent language, the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), provides a common language for mental disorders. When an obstetrician lists "failure to progress" on a patient's chart or a psychiatrist names the diagnosis "paranoid schizophrenia, chronic," other physicians, health
care practitioners, and third-party payers understand the patient's diagnosis.

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ICD-10 and DSM-IV are coded by a system of numbers for input into computers. The IDC-10 is a coding system used mainly for billing purposes by organizations and practitioners while the DSM-IV is a categorization system for psychiatric diagnoses. The DSM-IV categories have an ICD-10 counterpart code that is used for billing purposes.

Nurses lacked a standardized language to communicate their practice until the North American Nursing Diagnosis (NANDA), was introduced in 1973. Since then several more languages have been developed. The Nursing Minimum Data Set (NMDS) was developed in 1988 (Prophet & Delaney, 1998) followed by the Nursing Management Minimum Data Set (NMMDS) in 1989 (Huber, Schumacher, & Delaney, 1997). The Clinical Care Classification (CCC) was developed in 1991 for use in hospitals, ambulatory care clinics, and other settings (Saba, 2003). The standardized language developed for home, public health, and school health is the Omaha System (The Omaha System, 2004). The Nursing Intervention Classification (NIC) was published for the first time in 1992; it is currently in its fourth edition (McCloskey-Dochterman & Bulachek, 2004). The most current edition of the Nursing Outcomes Classification system (NOC), as of this writing, is the third edition published in 2004 (Moorhead, Johnson, & Maas, 2004). Both are used across a number of settings.

Use of standardized nursing languages promises to enhance communication of nursing care nationally and internationally. This is important because it will alert nurses to helpful interventions that may not be in current use in their areas. Two presentations at the NANDA, NIC, NOC 2004 Conference illustrated the use of a standardized nursing language in other countries (Baena de Morales Lopes, Jose dos Reis, & Higa, 2004; Lee, 2004). Lee (2004) used 360 nurse experts in quality assurance to identify five patient outcomes from the NOC (Johnson, Maas, & Moorhead, 2000) criteria to evaluate the quality of nursing care in Korean hospitals. The five NOC outcomes selected by the nurse experts as standards to evaluate the quality of care were vital signs status; knowledge: infection control; pain control behavior; safety behavior: fall prevention; and infection status.

Baena de Morales Lopes et al. (2004) identified the major nursing diagnoses and interventions in a protocol used for victims of sexual violence in Sao Paulo, Brazil. The major nursing diagnoses identified were: rape-trauma syndrome, acute pain, fear/anxiety, risk for infection, impaired skin integrity, and altered comfort. Through the use of these nursing diagnoses, specific interventions were identified, such as administration of appropriate medications with explanations of expected side effects, emotional support, helping the client to a shower and clean clothes, and referrals to needed agencies. The authors used these diagnoses in providing care for 748 clients and concluded that use of the nursing diagnoses contributed to the establishment of bonds with their clients. These are just two examples illustrating how a standardized language has been used across nursing specialties and around the world.

**Increased Visibility of Nursing Interventions**

Nurses need to express exactly what it is that they do for patients. Pearson (2003) has stated, "Nursing has a long tradition of over-reliance on handing down both information and knowledge by word-of-mouth" (p. 271). Because nurses use informal notes to verbally report to one another, rather than patient records and care plans, their work remains invisible. Pearson states that at the present time the preponderance of care documentation focuses on protection from litigation rather than patient care provided. He anticipates that use of computerized nursing documentation systems, located close to the patient, will lead to more patient-centered and consistent documentation. Increased sensitivity to the nursing care activities provided by these computerized documentation systems will help highlight the contribution of nurses need to express exactly what it is that they do for patients.
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Nursing practice, in addition to the interventions, treatments, and procedures, includes the use of observation skills and experience to make nursing judgments about patient care. Interventions that should be undertaken to in support nursing judgments and that demonstrate the depth of nursing judgment are built into the standardized nursing languages. For example, one activity listed under labor induction in the NIC language is that of re-evaluating cervical status and verifying presentation before initiating further induction measures (McCloskey-Dochterman & Bulechek, 2004). This activity guides the nurse to assess the dilatation and effacement of the cervix and presentation of the fetus, before making a judgment about continuing the induction procedure.

LaDuke (2000) provides an additional example of using the NIC to make nursing interventions visible. For example, LaDuke noted that the intervention of emotional support, described by McCloskey-Dochterman & Bulechek (2004) requires "interpersonal skills, critical thinking and time" (LaDuke, p. 43). NIC identifies emotional support as a specific intervention, provides a distinct definition for it, and lists specific activities to provide emotional support. Identification of emotional support as a specific intervention gives nurses a standardized nursing language to describe the specific activities necessary for the intervention of emotional support.

Improved Patient Care

The use of a standardized nursing language can improve patient care. Cavendish (2001) surveyed sixty-four members of the National Association of School Nurses to obtain their perceptions of the most frequent complaints for abdominal pain. They used the NIC and NOC to determine the interventions and outcomes of children after acute abdomen had been ruled out. Nurses identified the chief complaints of the children, the most frequent etiology, the most frequent pain management activities from the NIC, and the change in NOC outcomes after intervention.

The three chief complaints were nausea, headache, and vomiting; the character of the pain was described as crampy/mild or moderate; and the three most identified etiologies were psychosocial problems, viral syndromes, and relationship to menses. The psychosocial problems included test anxiety, separation anxiety, and interpersonal problems. Nutrition accounted for a large number of abdominal complaints, such as skipping meals, eating junk food, and food intolerances. Cultural backgrounds of the children, such as the practice of fasting during Ramadan, were identified as causes for abdominal complaints.

The three top pain management activities from NIC were: observe for nonverbal cues of discomfort, perform comprehensive assessment of pain (location, characteristics, duration, frequency, quality, severity, precipitating factors), and reduce or eliminate factors that precipitate/increase pain experience (e.g., fear, fatigue, and lack of knowledge) (Cavendish, 2001). Cavendish described a decrease in symptoms, based on the Nursing Outcomes Classification Symptom Severity Indicators, following the intervention. Symptom intensity decreased 6.25%, symptom persistence decreased 4.69%, symptom frequency decreased 6.25%, and associated discomfort decreased 41.06% (p. 272). Similar studies are needed to provide evidence that specific nursing interventions improve patient outcomes.

Enhanced Data Collection to Evaluate Nursing Care Outcomes

The use of a standardized language to record nursing care can provide the consistency necessary to compare the quality of outcomes for various nursing interventions across settings. As stated earlier, more organizations are moving to electronic documentation (ED) and electronic health records. When the nursing care data stored in these computer systems are in a standardized nursing language, large local, state, and national data repositories can be constructed that...
will facilitate benchmarking with other hospitals and settings that provide nursing care. The National Quality Forum (NQF) (NQF, 2006), is in the process of developing national standards for the measurement and reporting of health care performance data. The Nursing Care Measures Project is one of the 24 projects on which the NQF is developing consensus-based, national standards to use as mechanisms for quality improvement and measurement initiatives to improve American health care. The NQF has stated, "Given the importance of nursing care, the absence of standardized nursing care performance measures is a major void in healthcare quality assurance and work system performance" (NQF, May 2003, p. 1).

Patient outcomes are also related to the uniqueness of the individual, the care given by other health care professionals, and the environment in which the care is provided. The American Nurses Association's National Center for Nursing Quality (NCNQ) maintains a database called the National Database of Nursing Quality Indicators (DNQI) (American Nurses Association, 2006a). This database collects nurse-sensitive and unit-specific indicators from health care organizations, compares this data with organizations of similar size having similar units, and sends the comparison findings back to the participating organization. This activity facilitates longitudinal benchmarking as the database has been ongoing since the early 1990’s (National Database, 2004).

The already-mentioned NOC system outcomes are nurse-sensitive outcomes, which means the the are sensitive to those interventions performed primarily by nurses (Moorehead et al., 2004). Because the NOC system measures nursing outcomes on a numerical rating scale, it, too, facilitates the benchmarking of nursing practices across facilities, regions, and countries. The current edition of NOC (2004), which assesses the impact of nursing care on the individual, the family, and the community, contains 330 outcomes classified in seven domains and 29 classes.

A NOC outcome common to nurses who work with elderly patients who have a swallowing impairment is aspiration prevention (Moorehead et al., 2004). Patient behaviors indicating this outcome include identifying risk factors, avoiding risk factors, positioning self upright for eating/drinking, and choosing liquids and foods of proper consistency. Rating each indicator on a scale from one (never demonstrated) to five (consistently demonstrated) helps track risk for aspiration in individuals at various stages of illness during the hospitalization. It also gives an indication of a person's compliance in following the prevention measures and the nurse's success in patient education.

A NOC outcome that labor nurses frequently use is pain level (Moorehead et al., 2004), related to the severity and intensity of pain a woman experiences with contractions. The pain level can be assessed before and after the use of coping techniques such as breathing exercises and repositioning. Indicators for this specific pain outcome include: reported pain, moaning and crying, facial expressions of pain, restlessness, narrowed focus, respiratory rate, pulse rate, blood pressure, and perspiration (p. 421) and are rated on a scale from severe (1) to none (5). The difference between the numerical ratings for each indicator before and after use of the coping techniques estimates the success of the intervention in achieving the outcome of reducing the pain level for laboring mothers.

**Greater Adherence to Standards of Care**

Related to the quality of nursing care is the level of adherence to the standards of care for a given patient population. The NIC and NOC standardized nursing language systems are based on both the input of expert nurses and the standards of care from various professional organizations. For example, the NIC intervention of electronic fetal monitoring: intrapartum (McCloskey-Dochterman & Bulechek, 2004) is supported by publications of expert authors and researchers in the field of fetal monitoring and by standards of care from the Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN). The first activity listed under electronic fetal monitoring: intrapartum is to verify maternal and fetal heart rates before initiation of electronic fetal monitoring (p. 328), which is understood to be one of the gold standards for electronic fetal monitoring. There are several reasons why both heart rates need to be identified. The nurse must be sure that it is the fetal heart rate being monitored and not the heart rate of the mother. Moreover, it is important to ascertain the exact position of the fetus before positioning the fetal monitor's transducer. This illustration exemplifies how important standards are reinforced by the NIC activities.
**Facilitated Assessment of Nursing Competency**

Standardized language can also be used to assess nursing competency. Health care facilities are required to demonstrate the competence of staff for the Joint Commission. The nursing interventions delineated in standardized nursing languages can be used as a standard by which to assess nurse competency in the performance of these interventions. A Midwestern hospital is already doing this (Nolan, 2004). Using an example from the NIC system, specifically intrapartal care (McCloskey-Dochterman & Bulechek, 2004), a nurse’s competency can be established by a preceptor’s watching to see whether the nurse is performing the recommended activities, such as a vaginal examination or the assessment of the fetus presentation. The preceptor can also evaluate the nurse’s teaching skills regarding what the patient should expect during labor, using the activities listed under the teaching intervention.

**Implications of Standardized Language for Nursing Education, Research, and Administration**

In addition to enhancing the care provided by direct care nurses, standardized language has implications for nursing education, research, and administration. Nurse educators can use the knowledge inherent in standardized nursing languages to educate future nurses. Such a system can be used to describe the unique roles of the nurse. Nurse educators can teach students to use systems such as the CCC and Omaha System when in the community health fields, or use the NANDA, NIC, NOC terminology when in the acute care setting. References to the primary resources upon which each intervention is based are listed at the end of each individual intervention to provide information supporting each intervention. By referring to the references associated with these nursing standards, nurse educators can role model the use of standardized language to help students recognize the body of knowledge upon which the standards are built. Tying the standardized language to education and practice will enhance its implementation and expand practicing nurses’ knowledge of interventions, outcomes, and languages. Armed with an appreciation of the value of standardized language, students can champion further development and use of the standardized nursing languages once they enter professional practice.

The use of standardized languages can provide a launching point for conducting research on standardized languages. The research conducted by the two teams of educators at the University of Iowa on the NIC and NOC are excellent examples of the research that can be done on the standardized nursing languages using computerized databases designed for research (McCloskey-Dochterman & Bulechek, 2004; Moorehead et al., 2004).

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Although nursing researchers have traditionally used historic data (data describing completed activities), computerized documentation based on a standardized language can enable researchers and quality improvement staff to use "real-time" data. This data is more readily accessible and retrievable as compared to the traditional, time-consuming task of sifting through stacks of charts for the needed information.

When the bedside nurse documents via a nursing information system having a standardized language, the data are stored by the hospital, usually in a data warehouse. When the aggregate data are accessed by administrators and researchers, trends in patient care can be uncovered (Zytkowski, 2003), best practices of nursing care unlocked, efficiencies in nursing care discovered, and a relevant knowledge base for nursing can be built. Nursing research performed with these larger sample sizes achieved by using databases may reveal more powerful patterns with stronger implications for practice than can past research that depended on small samples.

Kennedy (2003) states that one byproduct of accurate documentation of patient care is an estimation of acuity level. Patient care data entered into a computer and stored in a database can be used to help develop and adjust nursing schedules based on the projected patient census and acuity. Utilizing a standardized nursing language to document care can more precisely reflect the care given, assess...
Summary

Use of a standardized language is not something that is done just because it will be useful to others. Use of a standardized language has far reaching ramifications that will help in the delivery of nursing care and demonstrate the value of nursing to others. The benefits of a standardized nursing language include: better communication among nurses and other health care providers, increased visibility of nursing interventions, improved patient care, enhanced data collection to evaluate nursing care outcomes, greater adherence to standards of care, and facilitated assessment of nursing competency.

The ultimate goal should be the development of one standardized nursing language for all nurses. Although that goal has not yet been attained, examples of work toward it can be demonstrated. The International Council of Nurses (ICN) has developed the International Classification for Nursing Practice (ICNP) (ICN, 2006) in an attempt to establish a common language for nursing practice. The ICNP is a combinatorial terminology that cross-maps local terms, vocabularies, and classifications.

The Nursing Intervention Classification (NIC) and Nursing Outcome Classification (NOC) were developed as companion languages. These have linkages to other nursing languages, such as NANDA nursing diagnoses, the Omaha System, and Oasis for home health care, among others. Both are included in Systematized Nomenclature of Medicine’s (SNOMED) multidisciplinary record system. NIC has been translated into nine foreign languages and NOC into seven foreign languages.

By using one standardized nursing language, nurses from all over the world will be able to communicate with one another, with the goal of improving care for patients globally. Nurses will be able to convey the important work they do, making nursing more visible.

Correction Notice: The paragraphs below appeared in this article on the original publication date of January 31, 2008. The information in these paragraphs has been revised in the above article as of February 23, 2009 to clarify the difference between CNPII and NIDSEC. (See current content.)

Current Standardized Nursing Languages and Their Applications

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