Nursing Terminologies to Support Nursing Practice

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Learning Objectives

At the completion of this session, the learner will:

• Identify the ANA criteria for recognizing nursing terminologies and classifications
• Discuss the QSEN competences related to the use of a standardized terminology
• Describe the ways to use nursing classifications to teach, analyze, and improve nursing practice
• Describe the role of the nurse leader in supporting the use of standard terminologies
• Describe the relationship between the terminologies mandated through legislation and ANA recognized terminologies
"When I use a word," Humpty Dumpty said, in a rather scornful tone, "it means just what I choose it to mean--neither more nor less."

"The question is," said Alice, "whether you can make words mean so many different things."

"The question is," said Humpty Dumpty, "which is to be master--that's all."

In a paper record, clinicians could use and mean whatever they wanted and HIM professionals would translate for to the secondary users of the data. EHRs require that clinicians use standards.
Nursing’s Need for Terminology

- Reveals the impact of Nursing care on patient outcomes
  - Clinical care
  - Nurse staffing and other administrative variables
- Provides structure for clinically focused patient assessments
- Captures surveillance activities used to prevent complications
- Teaches students the language of clinical care and Nursing
  - Discipline specific
  - Multidisciplinary collaboration
Value Through Structured Terminology

Structured Terminology
A Foundation to Achieve

- Knowledge integration of evidence-based guidelines
- Documentation flexibility
- Care Coordination
- Quality measurement
- Nursing visibility
- Knowledge discovery

Agency for Healthcare Research and Quality, Prospects for Care Coordination Measurement Using Electronic Data Sources, AHRQ Publication No. 12-0014-EF, March 2012
Why Is Having a Nursing Terminology Model Important?

• Data sources and data applications rely on vendor software systems.
• In order for these systems to interoperate they must have a common understanding of:
  • Data model
  • Data representation (vocabulary)

Thus we need to specify *nouns, verbs, & adjectives* and their syntax and semantics.
Why Is Having a Nursing Terminology Model Important?

Without an agreed upon (standard) terminology, there is:

– No ability to exchange information (functional interoperability)

– No ability to “understand” or use information (semantic interoperability)

Thus, a standard is needed for understanding, computability, term generation, cross mapping, harmonization and integration
ISO Nursing Intervention Model

Core Criteria for ANA Terminology Recognition

- Support of nursing practice by providing clinically useful terminology and rationale for development.
- A level of development beyond an application, adaptation, or synthesis of currently recognized ANA vocabulary schemes or presents rationale for seeking recognition for synthesis, application or adaptation of existing schemes.
- Clear and unambiguous terms.
• Documented testing of reliability, validity, and utility in practice.
• A systematic method of development.
• A named entity responsible for a formal process of documenting evolving development and maintenance including tracking of deleted terms and version control.
• A coding scheme which provides a unique identifier for each term.
Criteria for Nomenclatures

- Contain terms that can be combined to represent more complex concepts
- Include a classification structure that supports multiple parents and multiple children as relevant
- Include pre-established rules for combining the terms

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<th>ANA Recognized Nursing Classifications</th>
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Developed by the NANDA International
- “Defining the Knowledge of Nursing”
- [http://www.nanda.org](http://www.nanda.org)

Taxonomy is organized into
- 13 domains of nursing practice
- 46 classes

There are currently, 201 nursing diagnoses
- Example, Ineffective Individual Coping, Activity Intolerance
Nursing Intervention Classification (NIC)

- Developed by McCloskey and Bulechek
- 7 Domains
  - Physiologic basic, physiologic complex, behavioral, safety, family, health system, community
- 30 classes
- 542 interventions
- Each intervention has non-coded, defining activities
- Example, Attachment Promotion, Airway Management
- [http://www.nursing.uiowa.edu/centers/cncce/nic/index.htm](http://www.nursing.uiowa.edu/centers/cncce/nic/index.htm)

Nursing Outcomes Classification (NOC)

• Developed by Moorhead, Johnson and Maas
  • http://www.nursing.uiowa.edu/centers/cncce/noc/index.htm
• 7 outcome domains
  • functional health, physiologic health, psychosocial health, health knowledge and behavior, perceived health, family health, community health
• 29 classes
• 385 patient states
  • Example, Knowledge: Diabetes Management
  • Scored on 5-point Likert scales

Omaha System

- Developed by the Omaha VNA and Karen Martin
- http://www.omahasystem.org
- 40 client problems
  - 4 domains: environmental, psychosocial, physiological, health related behaviors
  - Example, Communication with community resources
- 62 targets for nursing interventions
  - 4 categories: health teaching, guidance & counseling; treatments & procedures; case management; surveillance
  - Example, Surveillance of rest/sleep
- Problem rating scale for outcomes
  - Knowledge, Behavior, Status
  - Example, 3 ratings on rest/sleep
Clinical Care Classification (CCC)

• Developed by Virginia Saba
  • http://www.sabacare.com
• 176 nursing diagnoses
  • Classified under 20 care components
  • Example, Knowledge deficit of therapeutic regime
• 201 nursing interventions
  • Modified by 4 types of actions: assess/monitor, care/perform, teach, and manage/coordinate
  • Example, Teach wound care
• 3 goals: improved, stabilized, deteriorated
  • Linked with the nursing diagnosis statement
  • Example, Improved acute pain
AORN Perioperative Data Set

- Developed by AORN
- Uses a subset of NANDA diagnoses
- 29 outcomes with associated nursing interventions
  - Example, Patient is free from signs and symptoms of injury related to positioning
- 133 interventions related to goal achievement
  - Example, Identifies physical alternations that may affect procedure-specific positioning
International Classification for Nursing Practice (ICNP)

- Developed by the International Council of Nursing as a multi-axial terminology
  - [http://www.icn.ch/icnpupdate.htm](http://www.icn.ch/icnpupdate.htm)
- Nursing phenomena (similar to nursing diagnoses)
  - 8 axes: focus, judgment, frequency, duration, body site, laterality, distribution, likelihood
- Nursing interventions
  - 6 axes: actions, objects, approaches, means, body sites, time/place
- This is a reference terminology so is used as catalogs developed for specific purposes
NDNQI’s mission is to aid the registered nurse in patient safety and quality improvement efforts by providing research-based national comparative data on nursing care and the relationship to patient outcomes.

NDNQI is a proprietary database of the American Nurses Association. The database collects and evaluates unit-specific nurse-sensitive data from over 1800 hospitals in the United States.

NDNQI’s nursing-sensitive indicators reflect the structure, process, and outcomes of nursing care.

Retrieved from https://www.nursingquality.org
How Do Nursing Concepts Get Developed and Standardized?

- Clinical observation and description
- Clinical research
  - Quantitative methods
  - Qualitative methods
  - Epidemiological methods
- Terminological research
  - Database mining
  - Vocabulary modeling
Implementation Issues

• Separate training for a
  • Documentation system, whether paper or computer-based, forms and order sets
  • Education about the nursing classification system and its role in clinical judgment

• A list of terms in a nursing classification is not a substitute for clinical judgment
  • The nurse needs to know how to think critically about the concepts and make judgments about their relationships
Terminology and Clinical Judgment

Terminology and Language
• Learning the language
• Learning the clinical concepts
• Sensitivity and specificity of concept indicators

Clinical judgment
• Individual expertise and knowledge
• Learning clinical hypothesis testing
• Differentiating between concepts
Goals for Terminology Integration

Evidence-Based Practice
• Make evidence-based practice ‘actionable’ at the point of decision making
• Write rules to promote the use of evidence in patient care

Generate new knowledge regarding practice
• Build consistent, standard, comparable data that can be retrieved for research going across patient populations
Evidence-based Decision Support Using Information Systems

Executable Multidisciplinary Knowledge

Electronic Health Record

Assessment  Diagnosis  Intervention  Outcome

Referential Multidisciplinary Knowledge

Research

Clinical Knowledge Management
Terminology Server
Clinical Data Repository

Data Warehouse

Adapted from UWM
Why should you care...?

Nursing needs to define and measure its contribution to patient care. Without reliable and valid clinical data, no one will think that nurses make a difference.

Terminological support for the capture and analysis of nursing practice data is central to securing the future of professional nursing. We count and we do make a difference - let’s gather the evidence.
1. Describe how standardized nursing and multidisciplinary terminologies, like NANDA or SNOMED CT, ensure that data and information are communicated clearly and without errors.

2. What are the benefits of using a standardized terminology in documenting patient response?

3. What is the role of the nurse leader in supporting the use of standard terminologies?

4. Discuss the ANA criteria for recognizing nursing terminologies and classifications and how they insure a quality terminology.

5. Discuss the QSEN competences related to the use of a standardized terminology.

6. Describe the ways to use nursing classifications to teach, analyze, and improve nursing practice.

7. Describe the relationship between the terminologies mandated through legislation and ANA recognized terminologies.
Teaching Methods and Strategies

• Lecture
  – Use the concepts in the nursing terminologies as a focus for the lecture, then include the terminology system
  – Teach about activity intolerance or ineffective coping or pain control

• Discussion Board
  – Discuss how do standardized terminologies support nursing practice
  – Describe the role of standardized terminology in sharing patient information across nursing care sites

• Case studies
  – Include terminology in the case as a reflection of clinical judgment; have the students identify the case components that support the use of the standardized terminology

• Care plan development
  – Simulation activity: both as using the care plan for preparation and as an activity in the simulation
  – Clinical activity: both as using the care plan for preparation and as an activity in the simulation
Informatics

DEFINITION

"Use information and technology to communicate, manage knowledge, mitigate error, and support decision making."

KSAS

To review the proposed knowledge, skills and attitudes (KSAs) for nursing education on Informatics, see the following pages:

- Pre-Licensure Informatics KSAs
- Graduate Informatics KSAs

ANNOTATED BIBLIOGRAPHY(IES)

For a list of resources on Informatics, see the following page:

- Annotated Bibliographies: Informatics

RELATED TEACHING STRATEGIES

Clinical settings

- Clinical Evaluations Using KSAs: Developing Tools and Strategies
- Senior Nursing Student Capstone Clinical Integration Paper: Incorporating Quality and Safety Competencies
- Website Evaluation Exercise
- Data Mining: Directed data collection exercise
- Information Literacy In Nursing
- Health Literacy: Incorporating QSEN (Quality and Safety Education in Nursing) Competencies into a Senior Capstone Project and Paper
- A Universal Template for Designing QSEN Learning Activities: Setting Expectations Using KSAs (Graduate Level)
- Preventing Catheter-Associated UTIs: Implementing a "Clinical Activity Template" to Incorporate EBP
- Integrating QSEN Into Clinical Evaluation Tools
- Data Mining in the EHR: an activity for beginning student nurses
- Reflective Clinical Journaling: Using QSEN Competencies to Promote Student Self-Awareness of Quality and Safety in Nursing Practice
- Clinical Performance Evaluation Tools Utilizing the QSEN Competencies

A source of learning activities that help QSEN competency achievement,
http://www.qsen.org/definition.php?id=6
“If you cannot name it, you cannot teach it, research it, practice it, finance it, or put it into public policy.”
Norma Lang, 1992
Questions