Nursing Diagnoses

Clinical and Management Considerations

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Introduction: A Brief Historical View
1859-present
Crimea, 1859
## Pre and Post Arrival of Florence Nightingale

<table>
<thead>
<tr>
<th>Mortality Rates/1000 soldiers</th>
<th>Before Nightingale’s Arrival</th>
<th>3 months after Nightingale’s Arrival</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zymotic diseases</td>
<td>480.3</td>
<td>47.5</td>
</tr>
<tr>
<td>All other causes except wounds</td>
<td>68.6</td>
<td>5.0</td>
</tr>
</tbody>
</table>
“Conditions” not diseases treated by Nightingale

- Cold
- Frostbite
- **Hunger**
- Scurvy
- Lack of clothing
- Lack of shelter
- Excessive **fatigue**
- **Diarrhea**
- Dysentery
- **Fever**
In their text on the legal aspects of nursing, Lesnick and Anderson state that nurses diagnose, despite what nursing and medical practice acts at that time indicated.
Faye Abdellah states that nursing diagnoses represent the foundation of nursing science
1972

- New York State includes the term “nursing diagnosis” in its States Nurse Practice Act, under the definition of professional nursing.
New Jersey includes the term “nursing diagnosis” in its States Nurse Practice Act, under the definition of professional nursing.

Gebbie and Lavin call the First National Conference on the Classification of Nursing Diagnoses in St. Louis, Missouri

- Saint Louis University Clearinghouse of Nursing Diagnoses
- Task Force on Nursing Diagnoses, chaired by Marjory Gordon
American Nursing Association defines nursing as the “diagnosis and treatment of human responses to actual and potential health problems.”
1982

- NANDA, considering its birth to be 1973, becomes formally incorporated in 1982.
Adams and Duchene published first account of computerized use of standardized nursing diagnoses (NANDA).

- Integrated diagnoses with acuity levels and care plans
- Its management and practice features allowed for
  - Cost accounting of nursing care as a function of patient needs and outcomes
  - Justified nurse staffing and budget projections
1992

- NANDA become first nursing classification recognized by the American Nurses Association.
By 2005

- Nursing Diagnoses (NANDA)
  - Included in the Unified Medical Language System of the National Library of Medicine Metathesaurus, version 2004 AA (U.S. National Library of Medicine)
  - Adopted by Nurse Practice Acts in 41 or 50 States.
  - Included in SNOMED-CT, the reference terminology model approved for Medicare/Medicaid, VA System, DOD
  - Included in the words of the Institute of Medicine’s Report, *Key Capabilities of an Electronic Health Care Record System*: “…a defined dataset that includes medical and nursing diagnoses will insure providers ready availability to needed information.”
  - ISO-approved
International implications

- Text translated in 13 languages
- NANDA becomes NANDA International in 2002
- The term NANDA is no longer an acronym, as of 2002, but a trademark name.
- Abstracts are written in four languages: English, Spanish, French, and Korean.
- First international member of NANDA becomes member of NANDA Board in 2002 and second in 2004.
- Approximately 33% of NNN Conference participants represent countries other than the U.S.
Does NANDA make intuitive nursing sense?
New Orleans, Hurricane and Flood, 2005

- Ineffective community and societal coping
- Fear (individual, family, community, cultural, societal)
- Anxiety
- Impaired communication
- Ineffective coping
- Decisional conflict
New Orleans, Hurricane and Flood, 2005

- Risk for infection
- Interrupted family processes
- Fatigue
- Deficient fluid volume
- Imbalanced nutrition: Less than body requirements
New Orleans, Hurricane and Flood, 2005

- Post-trauma syndrome
- Powerlessness
- Ineffective protection
- Relocation stress syndrome
- Risk for suicide
New Orleans, Hurricane and Flood, 2005

- Risk for self and other directed violence
- Ineffective community therapeutic regimen management
- Deficient self-care
How do we arrive at such conclusions or diagnoses?
Part II: Diagnostic Reasoning

- Store information links, e.g., defining characteristics (signs and symptoms) with diagnoses and their related (etiologic) factors.
- Recognize cues
- List of tentative diagnoses
- Perform diagnostic tests
Link between diagnoses, desired outcomes, and interventions

- List definitive diagnoses that form basis for:
  - Articulating desired outcomes
  - Planning and implementing nursing interventions (treatments)
This approach to diagnosis is NANDA-consistent

- NANDA definition of nursing diagnosis
  - Clinical judgment
  - About individual, family or community responses
    - To actual or potential health problems/life processes.
    - Therefore, whereas disease diagnoses are the purview of medicine; health problems/life processes are the purview of nursing.
    - And...
NANDA Definition of Nursing Diagnoses (con’t)

- A nursing diagnosis provides the basis for selection of nursing interventions to achieve outcomes for which the nurse is accountable (1990).
  - True, but...
But…

- Is risk for hemorrhage a nursing diagnosis?
- Is hypoglycemia a nursing diagnosis?
- Is hypokalemia a nursing diagnosis?
- Is decreased urinary output a nursing diagnosis?
According to the current NANDA definition, the preceding are not nursing diagnoses.

- But...
Meyer and Lavin (2005) recommend a change in the definition to include them.

- Meyer and Lavin believe there should be two categories of NANDA-approved diagnoses.
  - The current category in which nurses diagnose, intervene, and are held accountable for outcomes; AND
  - A newly articulated category of vigilance diagnoses, in which nurses are responsible for making the diagnosis (and held legally accountable for doing so) but share rather than assume responsibility for their management and outcomes attained.
  - For example, risk for hemorrhage...
The newly post-operative patient is at risk of hemorrhage. Therefore,

- Vital signs at 15 minute intervals
- Check color
- Check skin
- Check dressing

Note: No physician’s order is needed for a professional nurse to know who is at risk and how that risk is to be assessed.
The professional nurse does not simply “monitor” these indicators, nor simply document assessment findings. The professional nurse “watches out for” or anticipates hemorrhage and diagnoses it when it occurs, or when its occurrence is highly probable. This is the value (albeit invisible) added by the professional nurse. If the professional nurse misses the cues and misses the diagnosis, he or she is responsible for failure to diagnose.
But, he or she is not responsible for surgically operating to repair the cause of the hemorrhage;

He or she is not totally responsible for the outcomes.

But, he or she shares responsibility for prompt intervention and the outcomes attained.
We believe this class of nursing diagnoses needs to be recognized by NANDA. We call these vigilance diagnoses. Vigilance is a mindset that transcends and permeates the nursing process. It is a state of alertness, a watching out for, combined with a readiness to act, and act quickly. In the next part, these differences will be further explained.
Break
Part III: Models for Clinical, Epidemiologic, and Management Application of Nursing Diagnoses in Emergency and Acute Care Settings
Premises

- If we do not name and document what we do
  - We will not be able to articulate the value professional nursing contributes to patient outcomes.
  - We will not be able to study the impact of professional nursing on outcomes.
  - We will not be true to the scientific foundation of nursing, established by Florence Nightingale almost 150 years ago.
Conversely…

- If we do name and document what we do
  - We will be able to articulate the value professional nursing contributes to patient outcomes.
  - We will be able to study the impact of professional nursing on outcomes.
  - We will be true to the scientific foundation of nursing, established by Florence Nightingale almost 150 years ago.
Such naming and documenting impacts

- The patient (better care and outcomes)
- The profession (professional identity)
- Management and cost considerations
- Progress being made in nursing epidemiology
More concretely…
<table>
<thead>
<tr>
<th>Acuity Level</th>
<th>Pain Scale</th>
<th>Fear Scale</th>
<th>Anxiety Scale</th>
<th>Coping Scale</th>
<th>Degree of Powerlessness</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
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<tr>
<td>II</td>
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# Nursing diagnosis x medical diagnosis

<table>
<thead>
<tr>
<th>Medical Diagnosis</th>
<th>Pain Scale</th>
<th>Fear Scale</th>
<th>Anxiety Scale</th>
<th>Coping Scale</th>
<th>Degree of Powerlessness</th>
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</thead>
<tbody>
<tr>
<td>ACS/MI</td>
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<td>Asthma</td>
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<td>Violence</td>
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<td>Suicide</td>
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</table>
Questions

- How much does the interaction between acuity level and nursing diagnoses influence mortality, length of patient stay, cost?
- How much does the interaction between medical and nursing diagnoses influence mortality, length of patient stay, cost?
- How much do all interactions influences mortality, length of patient stay, cost?
We will never know unless

- We name and document...
- Store, retrieve, and study information
- Improve patient care and expand evidence base in the process...
Acuity level x vigilance diagnoses in diabetic patient following repair of severed renal artery

<table>
<thead>
<tr>
<th>Acuity Level</th>
<th>Hemorrhage</th>
<th>Hypo- or hyperglycemia</th>
<th>Hypo- or Hyperkal- emia</th>
<th>Hourly urine output</th>
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<td>I</td>
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Note that acuity level, associated medical and preceding nursing diagnoses are much more closely related to each other than are the NANDA nursing diagnoses.

This closer schematic relationship probably reflects the reality of greater interprofessional teamwork being employed, when vigilance diagnoses surface in the care of the patient.
While the term “vigilance diagnoses” has not been used previously by NANDA, the concept of vigilance is not new to nursing literature.
Related Evidence-Based Literature: Instructions: NLINKS, PubMed, My NCBI

- [www.nlinks.org](http://www.nlinks.org)
- Click on Research Center
- Click on one of the databases – Note the nursing diagnoses or patient center nursing outcomes databases that are combined with a primary data database are the most evidence-based ones.
- When activated a PubMed.gov page appears.
- In its search box is the nlinks.org filter
- To conduct a search... (next slide)
- Insert your search term or terms in front of the filter terms in the PubMed search box.
- Connect your search terms to the filter terms by a Boolean AND, preceded and followed by a space.
- Once you have a search you want to save, then go to “My NCBI,” a hyperlink in the blue, left hand margin of the PubMed page (next slide)
- Register free
- Enter your search once registered.
To access searches I saved for you,

- Go to Pubmed.gov
- Click on “My NCBI” in the blue left hand margin of the page
- Enter
  - ID: Bern
  - Password: search
  - NOTE: The ID and password are case-sensitive.
  - Enjoy the stored search.
Building infrastructure

- The infrastructure for a knowledge base is built on the principles underlying search methodologies, filter development and testing, save search methods, etc.

- The infrastructure for clinical or management decision support consists of the digitalizing of clinical information for later retrieval and analysis.

- In both cases, information is standardized.
Part IV: Selected Diagnosis Research and Suggested Intervention and Outcomes Classifications
Nursing diagnoses (Welton & Halloran, 1999)

- Influence
  - Length of hospital stay
  - Length of ICU stay
  - Total hospital charges

- Explain a portion of the variance in these outcomes that is not explained by the medical diagnosis.
Nursing diagnoses (Marek, 1996)

- Explain a variance in the number of home health nursing visits and hours of care that is greater and different from that explained by the patient’s medical diagnoses.
The number of nursing diagnoses present on admission is significantly related to in-hospital mortality.

- 34 of 61 diagnoses were independent predictors of mortality.
- They formed the Nursing Severity Index
- But...
Findings not substantiated in smaller sample, where $n = 140$ (Bakken, Dolter, & Holzemer, 1999)

- More and larger studies are needed
The ANA approved classifications

- NANDA
- Nursing Interventions Classification (NIC)
- Home Health Care Classification (now Clinical Care Classification)
- Omaha System
- Nursing Outcomes Classification
- Nursing Management Minimum Data Set
The ANA approved classifications (con’t)

- Patient Care Data Set
- PeriOperative Nursing Data Set
- SNOMED-CT
- Nursing Minimum Data Set
- ICNP
- ABCodes
- Logical Observation Identifiers Names and Codes (LOINC)
How to choose?

- Which are most conducive to study?
  - Those that provide the most clinical information, which are NANDA, NIC, and NOC, given limited resources.
Comparison of diagnosis definitions

- Risk for falls
  - NANDA: Increased susceptibility to falling that may cause physical harm
  - ICNP: Falling is a type of Self Care: Physical Activity with the specific characteristics: Rapidly decent of body from a higher to a lower level due to disturbed balance of the body or reduced capacity to bear weight of body in different positions.
Comparison of diagnosis defining characteristics (signs or symptoms)

- Risk for falls
  - NANDA lists 51 risk factors divided according to age within
    - Physiologic
    - Cognitive
    - Medications
    - Environment
  - ICNP: Defining characteristics not included. Does rate severity: high, low or moderate risk, etc.
Interventions for fall risk

NIC

- Consists of 54 individual activities identified under the intervention called, fall prevention.
- ICNP: Codes the term “fall prevention” only and defines prevention as “Preventing is a type of attending with the specific characteristics: Stopping or hindering something from happening.”
Outcomes for fall risk

- ICNP: No outcomes classification
- NOC: Located under risk for injury
  - Outcome is fall prevention, i.e., falls do not occur.
  - Outcome is also symptom-related and frequency related e.g.,
    - Does patient rise slowing from a supine position?
    - Does the patient evidence fall-free days, weeks, months, etc.?
Why is more information better?

- Information is used for many purposes:
  - Quality monitoring and patient improvement
  - Management, billing, reimbursement
  - Epidemiologic research
Why do we need as much information as possible?

- If the etiology of falls in the hospital is to become known and if falls are to be effectively decreased due to fall prevention interventions, then nursing needs to collect and analyze systematically obtained and complete fall-related data. Only then can we improve quality.

- This is especially true because medical approaches to in-hospital falls concentrate on the site of injury and the number of falls, rather than on prevention. In other words, medical articles tend not to examine the etiology of the fall and its prevention.

http://ip.bmjournals.com/cgi/content/full/8/4/280
Project Manager: Leading simultaneous implementation into the future

- Clinical
  - Discuss
  - Read/learn applications with organized structure
  - Reflect
  - Apply in your clinical setting
    - Expert utilization
      - Clinical expert
      - Expert in methods (case study, rounds, or consensus method)
  - Evaluate

- Nursing Informatics:
  - An advanced degree nursing position
  - Analogous to a medical informatics position
  - Principle: Next slide
Nursing informatics is not medical informatics

- Different terminologies, i.e., content
- Even different use of the term “diagnosis”
- More patient centered and process oriented than a more disease and treatment centered prescriptive approach of medicine.
- There would be no difference in the variance in outcomes explained by nursing and medicine, if the two were the same. They are different but complementary approaches to patient care.
Nursing Project Director and Medical Project Director Characteristics

- **Nursing Project Manager**
  (Possesses advanced degree in nursing and experience in nursing informatics)
  - Responsible for nursing (human response/life processes) knowledge and information base, including selection of terminologies to be used, working in conjunction with clinical and managerial nursing staff
  - Collaborates with and maintains open communication with Medical Project Manager

- **Medical Project Manager**
  (Possesses degree in medicine and experience in medical informatics)
  - Responsible for medical (disease) knowledge and information base, including selection of medical terminologies to be used, working in conjunction with clinical and administrative medical staff.
  - Collaborates with and maintains open communication with Nursing Project Manager.
Administrative Structure

- Collaborative team relationship between medical and nursing informaticist leaders.
- Preferably, each is responsible to same administrative head and to the professional constituency of each.
Who tells who what?

- The nursing and medical informaticists inform the vendors about what is or is not acceptable for the system being developed.
- Not the other way around.
- Aim for a collaborative relationship with the vendors as well. This means making sure that negotiation over content is a reality and not just lip service.
Desired characteristics of standardized nursing classification system

- Capable of handling diagnoses, interventions and outcomes in an integrated manner
- Vendor is responsible for licensing of the classifications used
- Interoperable with other systems nationally and ultimately internationally
- User-friendly
Thank you and the end!