European Nursing care Pathways
Giving Nursing a Language

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- Objectives
- Development
- Organising principle and structure
- Systematic further development
- Evidence base
A classification is an organisational system based on the principle of class formation. A classification structure is a listing of terms or concepts represented in a hierarchical structure.

The sorting of different nursing phenomena or concepts in groups, classes, categories (resulting from the organisation according to criteria and types of features), can be called a nursing classification.

Reference: HIMSS 2006
A major challenge: (Dis)Orientation within the nursing process

- Nursing diagnosis
- Etiologies
- Nursing objectives
- Characteristics / Symptoms
- Interventions
- Intervention specifications
Structured illustration of the nursing process in the context of documentation in a standardized professional language

- Support of the communication process
- Support of processes and transitional care
- Support of performance transparency in nursing
- Structuring of the current nursing knowledge
- Support of quality development, nursing staff calculation and outcome measurement

Outline of the ENP history

1989: Beginning of the inductive development
- "Nursing performance can be practically illustrated with a standardized terminology."

1994: First publication of the catalogue
- Containing nursing problems, outcomes and interventions

1996: Representation of the ENP catalogue in IT

1998: Establishment of a research department
- Continuous further development in projects with end users and through literature analyses

from 2000: evidence-based development
- (validation studies, cross-mapping, systematic reviews, ...)
Division into three sections

- ENP... as a **nursing classification system** for a total of seven groups

- ENP... as **pre-combination** of the elements of this nursing classification system

- ENP... as **practice guidelines** developed from the pre-combination
Seven groups: components

- Nursing problems / phenomena
- Characteristics
- Etiologies
- Resources
- Nursing objectives
- Interventions
- Intervention specifications
The patient is impaired in **verbal communication** due to **motor aphasia** (Broca's aphasia)
The **patient** is **impaired in verbal communication** due to **motor aphasia** (Broca's aphasia)

### Characteristics/Symptoms

- Strongly pronounced agrammatism
- Strongly halting speech flow
- Uses commonplace phrases
- Uses meaningless phrases and/or stereotypes
- …

### Etiologies

**Pathophysiologic causes**
- Degenerative process of the brain
- Congenital vascular malformations
- …

**Disease-related causes**
- Cerebral vascular accident
- Encephalitis
- …
Illustration of the nursing process in the form of a care pathway representing the current knowledge, individualized for each patient!
### The structure of ENP: Summary

#### Nursing knowledge for the illustration of the nursing care process

<table>
<thead>
<tr>
<th>PART</th>
<th>CLASSIFICATION</th>
<th>GROUP</th>
<th>Domains</th>
<th>Clases</th>
<th>Category</th>
<th>Sub-category</th>
<th>ENP Pre-combinations</th>
<th>ENP Practice guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ENP</td>
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</tbody>
</table>

#### ENP Pre-combinations

- Nursing problem (NP)
- Resources (R)
- Characteristics (C)
- Etiologies (E)
- N. objectives (NO)
- N. interventions (I)

#### ENP Practice guideline

- ENP Nursing diagnosis
- Selected resources
- Selected characteristics
- Selected etologies
- Selected objectives
- Selected nursing intervention

#### Intervention specification (IS)

- Localization
- Type of super
- IS 1
- IS 2
- IS 3
- IS 4

#### Scale to measure the grade of achievement

- MD 1
- MD 2
- MD 3
- MD 4

#### Problem specification (O, C, I)

- Interventions of the class "Case out breathing exercise"
- Topics are organized from general to specific

- On each hierarchy level a further distinguishing feature is added

- Concepts are assigned to exactly one generic term
## Group: Nursing problems / phenomena

<table>
<thead>
<tr>
<th>Domain</th>
<th>Class</th>
<th>Category</th>
<th>Subcategory</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Functional/physiological area</strong></td>
<td>Personal hygiene/clothing</td>
<td>Self-care deficit washing</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Self-care deficit oral hygiene</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Self-care deficit hair care</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Self-care deficit dressing</td>
<td></td>
</tr>
<tr>
<td><strong>Respiration</strong></td>
<td></td>
<td>Ineffective self-cleansing function</td>
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<tr>
<td></td>
<td></td>
<td>of the respiratory tract</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Insufficient respiration</td>
<td>The patient has insufficient respiration due to dyspnoea</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Risk of respiration insufficiency</td>
<td>The patient is ventilated, there is a risk of insufficient respiration</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Risk of suffocation</td>
<td>The patient has serous foamy sputum associated with acute dyspnea, there is insufficient respiration</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Risk of aspiration</td>
<td>...</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Risk of atelectasis/pneumonia</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Risk of impaired respiration</td>
<td></td>
</tr>
</tbody>
</table>
Current status: scope and evidence level of ENP

<table>
<thead>
<tr>
<th>Terms/ concepts of the group</th>
<th>Items v2.5</th>
<th>Items v2.6</th>
<th>Items v2.7</th>
<th>Items v2.9 (new)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing diagnoses</td>
<td>521</td>
<td>542</td>
<td>548</td>
<td>552</td>
</tr>
<tr>
<td>Characteristics / Symptoms</td>
<td>2230</td>
<td>2719</td>
<td>2905</td>
<td>3984</td>
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<tr>
<td>Etiologies</td>
<td>1799</td>
<td>2282</td>
<td>2426</td>
<td>3526</td>
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<tr>
<td>Ressources</td>
<td>379</td>
<td>457</td>
<td>473</td>
<td>648</td>
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<tr>
<td>Nursing objectives</td>
<td>1435</td>
<td>1683</td>
<td>1724</td>
<td>1852</td>
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<tr>
<td>Nursing interventions</td>
<td>2494</td>
<td>2511</td>
<td>2558</td>
<td>2615</td>
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<tr>
<td>Intervention specifications</td>
<td>3652</td>
<td>4285</td>
<td>4461</td>
<td>4797</td>
</tr>
</tbody>
</table>

Each item has a unique and unchangeable ID number!

- Systematic literature-based revision of about 1/5 of all practice guidelines
- Growing number of ENP validation studies (completed and in progress):
  - Implementation and evaluation in nursing practice
  - Securing content and criteria validity
  - Cross-mapping, expert rating
  - Student theses

Each systematically revised nursing diagnosis is supported by a definition:

The patient is impaired in verbal communication due to motor aphasia (Broca's aphasia)

Impaired or lacking ability to actively participate in verbal communication after completion of language acquisition due to a central speech disorder with the lack of grammatical structures in the sentence structure as a leading symptom.

(DGN 2012, Wehmeyer et al. 2006, ICNP Aphasia [10002438], ICF Communicating with - receiving - spoken messages [d310], ICF Speaking [d330])

The revision history and the level of evidence (based on NANDA-I) is shown for the respective ENP nursing diagnosis:

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>ENP practice guideline</td>
<td>ENP nursing diagnosis</td>
</tr>
<tr>
<td>Level of evidence:</td>
<td>LoE 3.2</td>
</tr>
</tbody>
</table>
Systematic further development today

Influencing factors on the further development

- Practice projects with institutions
- Findings of previous ENP validation studies
- New scientific findings (studies, guidelines, etc.)
- Analysis of user databases

Elements of the systematic further development

- a. Determination of the topics to be revised
- b. Determination of a revision strategy
- c. Systematic literature review and analysis
- d. Revision of the ENP catalogue and consensus
- e. Validation of the additions/changes/deletions

European Nursing care Pathways (ENP), new version

Systematic translation of ENP (English, Italian, French)
• ENP can (and should) not replace the nurses expert knowledge

• ENP is not complete:
  • i.e about 23% of the NANDA-I nursing diagnoses can not be illustrated with ENP
  • About 18% of formulations in nursing care plans had to be added individually (2007)

• Currently, there are only a few validation studies which include a review of an entire practice guideline

• The operationalized scales for outcome measurement are partly not yet validated (e.g. own developments)

• ENP is not yet tested in some areas in practical use (e.g. recovery room, operating theatres, neonatal intensive care unit)

• Not all important questions for management, research and education can be answered from the data obtained with ENP

References: Wieteck 2007, Wieteck 2004, Berger 2010
What is next?

- Development of a new system to specify the levels of evidence (in cooperation with NANDA-I)
- Systematic revision of all nursing diagnoses and practice guidelines
- Supporting the international implementation and use of ENP
- Networking and exchange
- Establishment of strategies and concepts for analyzing the data generated with ENP
Thank you for your attention!

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