Systematic evaluation of computer-based nursing process documentation

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Computer-Based Nursing Documentation

- support of the nursing process
- quality improvement
- standardisation of nursing language
- various possibilities of evaluating nursing data
- improvement of the co-operation between health-professionals
Introduction of computer based nursing documentation at the University of Heidelberg

Introduction of PIK ® 4.6. on four wards:

- Department of Psychiatry
  – Ward A 10/98
  – Ward B 11/99
- Department of Dermatology 09/00
- Department of Paediatrics 10/00
- School of paediatric nursing - being planned
Aims of the project

- nursing documentation should become part of the electronic patient record

- introduction of the ICNP (International Classification of Nursing Practice)

- long-term effects on:
  - acceptance of the nursing process
  - acceptance of computers in nursing
  - quality of nursing documentation
Functionalities of PIK ®

- nursing assessment
- care planning using predefined nursing care plans
- planning of nursing tasks
- documentation of executed nursing tasks
- evaluation of the aims set
- nursing report
- communication among health professionals
- management of catalogue
Study design

intervention study with three time measurements:

-3 0 3 6 9 12 months of PIK use

- intervention

* questionnaires
* interviews
* quality measurements
Results

- major study questions:
  - How does acceptance of nursing process change?
  - Does the user acceptance of computers change during the study?
  - How does the quality of documentation change?
Acceptance of the nursing process

Introduction
Aims
Functionality
Study Design
Results
- Acceptance of nursing process
- Acceptance of computers
- Quality measurements
Discussion
Acceptance of the nursing process

The nursing process improves nursing care.

- Acceptance of nursing process
- Acceptance of computers
- Quality measurements
Acceptance of computers in nursing

Introduction

Aims

Functionality

Study Design

Results

- Acceptance of nursing process
- Acceptance of computers
- Quality measurements

Discussion

<table>
<thead>
<tr>
<th>Wards</th>
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<th>time 2</th>
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<tr>
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<tr>
<td>D</td>
<td>4.0</td>
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</tbody>
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Acceptance of Computers in nursing

Introduction

Aims

Functionality

Study Design

Results

- Acceptance of nursing process
- Acceptance of computers
- Quality measurements

Discussion

Would you like to be assisted by a computer for nursing documentation in future?

Number of answers

- -- 1
- - 6
+ 15
++ 9

Number of answers
Quality of Documentation

The quality of nursing documentation will be improved by using computerised care plans.

- Acceptance of nursing process
- Acceptance of computers
- Quality measurements
Quality of Documentation

User acceptance: PIK-documentation is ...

- More complete: 3.09
- Leads to a better overview: 2.76
- More legible: 3.03
- Of higher quality: 3.02

Discussion

User acceptance: PIK-documentation is more complete, leads to a better overview, more legible, and of higher quality.
Discussion

- better support of the nursing process
- quality improvement of nursing documentation
- wards with no care-planning prior to PIK $\implies$ higher time investment
- user support and technical support are important issues
Discussion

- potential high benefit of computer based nursing documentation
- nursing document. must be integrated into the electronic patient record
- terminological issues will become more important (ICNP)
- factors for successful implementation of computers in nursing