

# Nursing Diagnosis & Midwifery

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# STRENGTHS AND WEAKNESSES OF STANDARDIZED NURSING TERMINOLOGIES USED IN ELECTRONIC HEALTH RECORDS: A LITERATURE REVIEW

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**Background:** Standardized Nursing Terminologies apprise the nursing care provided and facilitate clinical research and education.

**Aim:** To identify strengths and weaknesses of standardized nursing terminologies used in electronic health records.

**Methods:** A literature review was conducted. Studies were retrieved from: PubMed, Cochrane Library, CINAHL, Cuiden, Scopus, and ISI Web of Knowledge. The search strategy included articles in English, French, Portuguese and Spanish published between 2002 and 2016 focusing on standardized nursing terminologies most frequently used in electronic nursing records.

**Findings:** NANDA/NIC/NOC and ICNP were the Standardized Nursing Terminology most frequently used. The use of Standardized Nursing Terminology allows to make comparisons between nursing records sharing the same terminologies. Sometimes the standard terminology was not sufficiently understood by nurses and therefore it could not be efficiently used, at some extent, hindering nursing continuity care.

**Discussion:** Standardized nursing terminologies had a strong impact on information quality, process quality and efficiency, but not on patients or professionals.

**Conclusion:** nurses must know why they are using a particular standardized terminology is beneficial or detrimental for patients, nursing knowledge or for themselves.

Table 1. Strengths and weaknesses of standardized nursing terminologies in electronic health records

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Reference	Year	Country	Standardized Nursing Terminologies	Strengths (+) or weaknesses (-)	Design	Effects using in EHR
Batton	2003	USA	Onsala	+	Observational	Use of Onsala system provide documentation of patient problems interventions and their outcomes
Tonsvall	2004	Sweden	VIPS	-	Experimental	It is necessary that all the nursing process is reflected correctly: Little use of nursing terminologies in EHR
				+	Observational	The participation of nurses is necessary in the design and implementation of nursing record programs
Rowntree	2005	Australia	ICNP	+	Observational	Observational studies have shown a positive in a paradigm of standardized clinical language and their incorporation in EHR
Keenan	2005	USA	NNN	-	Experimental	It was found that increasing the visibility of nursing care promotes greater use of nursing terminologies in EHR and nursing documentation consistency
Fukukawa	2005	Pakistan	ICNP	-	Experimental	Use of the ICNP records provides data to describe and quantify nursing practices and outcomes
Theodoreou	2005	Iceland	NNN	+	Experimental	Experimental studies have been conducted to describe the work and supports the construction of nursing knowledge
Cho	2006	Korea	ICNP	+	Observational	The ICNP could cover about 75% of the nursing reports in an EHR
Dunne	2006	Denmark	VIPS	-	Observational	It is likely that in the future have to be replaced by interdisciplinary VIPS model facilitates the storage and retrieval of nursing. It is simple to use and improve nursing documentation
Dorn	2006	Canada	NIC	+	Observational	Observational studies have shown that linking nursing interests are associated with patient outcomes
Theodoreou	2007	Iceland	NANDA/NIC	+	Observational	Important interest in the use of functional health patterns using terminologies NANDA/NIC
Reference	Year	Country	Standardized Nursing Terminologies	Strengths (+) or weaknesses (-)	Design	Effects using in EHR
Boyd	2007	USA	NNNN	-	Experimental	The creation of computerized management plans, evidence-based care instructions
Milner-Stoth	2007	Sweden	NNNN	-	Experimental	The implementation of NNNN coupled with a planned educational programs led to a higher quality of nursing documentation
Von Kregel	2007	Norway	NNNN	-	Observational	The implementation of NNNN is a good example of technological specificity of a standardized model registration
Milner-Stoth	2008	Sweden	NNNN	-	Experimental	The use of NNNN improves nursing documentation
Vittemo	2009	Italy	Onsala	+	Observational	Development of the computerization of the Onsala system
Dykes	2009	USA	ICNP and NANDA	+	Observational	Wide coverage of the content and the structure of the logic-based ICNP makes it a good choice for EHR
				+	Observational	The use of ICNP nursing system with system records promotes the interchange and communication between the two records thereby allowing consistency in the use of nursing terminologies
Hwang	2009	Korea	ICNP	-	Experimental	The creation of a domain combining clinical data and NNNN allows user to detect the nursing coding problems in relation to their condition
Lau	2009	USA	NNNN	-	Qualitative	Qualitative studies have shown that the NNNN is a good choice to use in the nursing documentation
Milner-Stoth	2010	Sweden	NNNN	-	Experimental	Implementation of NNNN in EHR is used to measure the quality of nursing documentation
Berzelius	2010	Sweden	NNNN	-	Experimental	Implementation of NNNN in EHR is used to follow the logical sequence of nursing process
Hyltman	2010	Finland	FinC	+	Observational	National project of computerized nursing documentation model to measure the quality of nursing documentation and effectiveness of the interventions
Jurilla	2010	Finland	NANDA	-	Observational	Validation of diagnoses for recording preventive care
Sotelo	2010	Spain	NNNN	-	Observational	The computerized map of care offers the opportunity to measure losses and gains in the quality of care
Westra	2010	USA	Onsala	+	Observational	It's feasible to integrate the Onsala system and computer the use to document nursing problems, interventions and outcomes. The feasibility of the Onsala system to be used in EHR

## Biography

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