INTERNATIONAL CLASSIFICATION OF NURSING PRACTICE - A MULTILINGUAL APPROACH TO HEALTH TERMINOLOGY.

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Abstract

Interoperability and standardization are perhaps the two most significant result of information and communication technologies penetrating routine operations in both medical education and medicine. Concepts like continuity of care, quality assurance or academic degree compatibility are based on shared understanding of processes, of laws they follow, of possible interactions with these processes, of roles and outcomes. Also on shared not-understanding: the nature of biomedical knowledge gives enough room for legitimate contradictions.

International classifications and language systems are examples of tools to support such shared understanding on international level. Of these, the International Classification of Nursing Practice (ICNP) is an ambitious project started by the International Council of Nurses (ICN), the top-level body representing the nursing community world-wide. Significant effort has been put into the development of ICNP and into its translation into various languages used by the nursing community. Besides contributing to the development of the ICNP itself, these translations (and the history of ICNP development) show a most interesting example of cultural determination of health, of health-related concepts and processes.

Key words: nursing, terminology, classification

The Foundation of ICNP

The development of ICNP was started in late 1980's by the ICN, with the aim to provide a tool for the nursing community that would allow to address one of its main problems: the lack of structured data about nursing practice. Serving to both scientific and practical purposes, ICNP was designed to serve as a classification useful for record-keeping, patient follow-up and quality assessment in daily nursing routine as well as an internationally accepted base for standardization in nursing. From the very beginning, ICNP was designed as an international project, aiming at a multi-lingual classification of terms and situations. More generally, ICNP was designed upon several conceptions:

⚔ the conception of health care as an interdisciplinary activity (which is now the generally accepted approach to healthcare)

⚔ the conception of nursing data as a valuable resource for patient health monitoring and for optimization of care (corresponding to today's general principles of personalized medicine)

⚔ the conception of nursing as a distinct discipline related to health which has its foundations and principles of universal (global, cross-cultural) validity.

ICNP versions

The first version of ICNP was given the code ICNP-alpha, following the usual notation of computer software products under development (where alpha is used for the very first versions serving as proof of concept and feature design, not meant for public testing), thus stressing the tight relation of ICNP to contemporary information technologies. Since the alpha version (proposed in 1994, released in 1996), ICNP consists of three main components: classification of nursing phenomena, classification of nursing actions and assessment of nursing outcomes. The initial English version of ICNP-alpha was translated into 14 European languages. ICNP-beta was released in 1999, accompanied by development of software products to assist data collection using ICNP. On the European level, Danish and German user groups have made the most progress in ICNP implementation. ICNP-beta was a two-fold structure, with the two main classification areas covering nursing phenomena and nursing actions, each of them built as a multi-axial combinatorial classification. ICNP-beta was translated into further languages, among them Czech, in 2000.

In 2001, the release of ICNP-beta2 (still following the notation usual in software development, where beta means a mature development version that is released for public testing) corrected several minor mistakes.

Version 1, surprisingly, changed the structure of ICNP: leaving the two-fold structure of the beta versions. Claiming to overcome the inconsistencies of ICNP-betas, ICNP-1 was released in 2005 as a single classification that consists of 7 axes: Client, Focus, Judgement, Means, Action, Time and Location. Versions ICNP-1.1 and ICNP-2 were launched in 2008 and 2009, respectively. The last version that was released this year has again changed the notation to ICNP-2011. The last version keeps the 7-axis structure of ICNP-1, adding 2 new entities to the main classification scheme: Diagnosis and Intervention. Version 2011, available in languages> English, German and Mandarin, with Icelandic,

Norwegian, Slovak and Swedish translation in development, is accompanied by a formal definition of ICNP ontology (in the sense that is used in computing applications: a formal definition of concepts and their relations).

ICNP Ontology

Despite the obvious progress from ICNP-alpha to ICNP-2011 that has resolved many inconsistencies and problems of the classification, there still exist areas where further development must bring further improvements. One of these areas is the ICNP multilinguality that brings to attention not only general problems with translation of terminology – but also the cultural background of nursing in various communities that is reflected in the language these communities use to describe the area of nursing. Nursing as a name for discipline is itself a nice example of this non-uniform cultural background: the German equivalent Kranken- und Gesundheitspflege is a new construction in German language, and replacement with only Pflege (as in Pflegesprache being used for nursing language) is not perfect. To support the international character of ICNP, ICNP-betas contained (besides the plain list of concepts) also their verbal descriptions (which were most useful for translations). Unfortunately, these descriptions/definitions have not always been in exact accord with the definitions of the same terms coming from other areas of healthcare, and instead of stressing the nursing perspective in these definitions/explanations, they were abandoned in ICNP-1.

Other issues are related to the hierarchical structure that is imposed on the 7+2 axes of ICNP-2011.

Hierarchical division of Diagnoses into "Negative Diagnosis and Outcome" and "Positive Diagnosis and Outcome", an example of mixing observation with judgement, and may be regarded a sign of a developing ontology. On the other hand, classification of position (laterality, anteriority/posteriority etc.) in a hierarchy with a fixed number of axes brings up fundamental questions about the suitability of hierarchical systems to describe the multitude of relations between concepts in a dynamically developing field of health care. These questions have been asked with SNOMED (Systematic Nomenclature of Medicine), and their re-appearance in the context of nursing demonstrates that more flexible ontologies (systems of organization of concepts and relations) must be used.

Conclusion

Based on the author's experience from the Czech translation of the ICNP-beta in 2000, and reflecting the international and multi-language aspects of the ICNP classification, a tool is being developed that aims to:

⚔ support further translators of ICNP with a multi-lingual track of history of the individual concepts and their translations, re-introducing concept descriptions

⚔ support further creation of ontologies (systems of relations among concepts) by tracking the history of relations and hierarchical positions of the individual concepts.

References

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