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Meeting the criteria of a nursing diagnosis classification: Evaluation of ICNP®, ICF, NANDA and ZEFP

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Abstract

Background: Few studies described nursing diagnosis classification criteria and how classifications meet these criteria.
Objectives: The purpose was to identify criteria for nursing diagnosis classifications and to assess how these criteria are met by different classifications.
Design/methods: First, a literature review was conducted ($N = 50$) to identify criteria for nursing diagnoses classifications and to evaluate how these criteria are met by the International Classification of Nursing Practice (ICNP®), the International Classification of Functioning, Disability and Health (ICF), the International Nursing Diagnoses Classification (NANDA), and the Nursing Diagnostic System of the Centre for Nursing Development and Research (ZEFP). Using literature review based general and specific criteria, the principal investigator evaluated each classification, applying a matrix. Second, a convenience sample of 20 nursing experts from different Swiss care institutions answered standardized interview forms, querying current national and international classification state and use.
Results: The first general criterion is that a diagnosis classification should describe the knowledge base and subject matter for which the nursing profession is responsible. ICNP® and NANDA meet this goal. The second general criterion is that each class fits within a central concept. The ICF and NANDA are the only two classifications built on conceptually driven classes. The third general classification criterion is that each diagnosis possesses a description, diagnostic criteria, and related etiologies. Although ICF and ICNP® describe diagnostic terms, only NANDA fulfils this criterion. The analysis indicated that NANDA fulfilled most of the specific classification criteria in the matrix. The nursing experts considered NANDA to be the best-researched and most widely implemented classification in Switzerland and internationally.
Conclusions: The international literature and the opinion of Swiss expert nurses indicate that—from the perspective of classifying comprehensive nursing diagnoses—NANDA should be recommended for nursing practice and electronic nursing documentation. Study limitations and future research needs are discussed.

Keywords: Classification evaluation criteria; International classification of nursing practice; International Classification of Functioning, Disability and Health; NANDA International; Nursing Diagnostic System of the Centre for Nursing Development and Research; Classification use

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What is already known about the topic?

- Various classification systems—ICNP® Beta Version, ICF, NANDA and ZEFP—have been described in the literature.
- Scientific research on the NANDA classification is extensive, but limited with regard to the other classifications.

What this paper adds

- For the first time, an assessment matrix containing criteria derived from nursing diagnosis literature is presented for the purpose of comparing classification systems, specifically the ICNP®, the ICF, the NANDA and the ZEFP diagnosis classifications.
- This assessment helps to demonstrate the advantages and disadvantages of the different systems, especially from a conceptual point of view.
- Based on the literature, the NANDA system fulfils most of the criteria of a nursing diagnoses classification and is the classification most disseminated internationally.

1. Introduction

Nursing diagnosis classification systems categorize patients' health problems for which nurses provide solutions through nursing interventions. Nursing diagnoses are internationally accepted as a part of systematic, individualized care planning (Ehrenberg and Ehnfors, 1999). The increasing use of biomedical technology, reduced lengths of hospital stay, and escalating healthcare costs place nurses under increasing performance pressure even as the demands increase for nurses to describe their contribution (Larrabee et al., 2001). Often only the most urgent needs in direct patient contact are met and adequate documentation of nursing care is neglected. Nursing documentation written in free style is frequently incomplete, the relation between nursing diagnoses and nursing interventions is not logically indicated, and progress reports are deficient (Bartholomeyczik, 2004; Moers and Schiemann, 2000; Müller-Staub, 2003). Use of nursing diagnoses facilitates comprehensive nursing documentation (Gordon, 1994b, 2003) and helps in increasing the efficiency of data management. Thus, standardized, computer-compatible professional terminology[2] is becoming a requirement, especially by institutions and healthcare systems that bear the costs of health care.

2. Background

Nursing diagnoses have been introduced in many hospitals and projects are being conducted to make data collection electronically retrievable. Administrators and clinical nurses often know little regarding criteria a nursing diagnoses classification should fulfill and to what degree existing classification systems meet these criteria. These deficiencies render the selection of a nursing diagnosis classification system difficult. This article is intended to serve as a decision-making aid in choosing a nursing diagnosis classification for practice purposes. Several design steps were employed to address the primary aim of this study. The selection of the classifications to be evaluated was based on the recommendations of a panel of advanced degree nurses and managers in Switzerland. The panel consisted of 17 advanced degree nurses of a university hospital, one university professor in nursing science and a nurse manager. The four systems ICNP® Beta 2, ICF, NANDA and ZEFP (see pp. 5–6) were chosen because: (1) NANDA and ICNP® were not new for the group, but little was known about their use and scientific base. (2) ZEFP was developed and used in Switzerland, but there was a lack of information about its limitations and advantages in comparison with the other systems. (3) ICF was not known by all members in this group, but was conceived and recommended by a statewide project for its application in nursing. This led to a politically driven recommendation. Even if it was evident that ICF is not a nursing classification, it has been applied to nursing and nursing diagnoses (Van Achterberg et al., 2002). For these reasons, the research questions were also applied to the ICF. This study focused on classification systems, designed for use in a broad range of clinical settings and translated into German. Therefore, the Omaha System and the Clinical Care Classification (CCC) were not included. The Omaha System includes an assessment component (Problem Classification Scheme), an intervention component (Intervention Scheme), and an outcomes component (Problem Rating Scale for Outcomes), but not nursing diagnoses with

[2] *Terminology*: "Set of designations belonging to one special language. In terminology work, three types of designations are distinguished: symbols, appellations and terms"(ISO, 2003, p. 10). *Term*: "Designation of a defined concept in a special language by a linguistic expression. Note—a term may consist of one or more words or even contain symbols (ISO 1087: 1990)" (Sall, 2005, p. 10). Chute (Chute, 2000), page 4, defines: "Terminology," then, is a convenient moniker, which can mean everything or very little. Many authors, including I, invoke terminology to subsume the entire problem, from classification to nomenclatures, language labels to concepts. Practically, we mean the naming problem, enabling clinical users to invoke a set of controlled terms that correspond to formal concepts organized by a classification schema."