

# **Unifying Nursing Languages**

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## **The Harmonization of NANDA, NIC, and NOC**

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**Editors: Joanne McCloskey Dochterman, PhD, RN, FAAN  
and Dorothy A. Jones, EdD, RNC, FAAN**



## Taxonomy of Nursing Practice: A Common Unified Structure for Nursing Language

Domains			
<b>I. Functional Domain</b> Includes diagnoses, outcomes, and interventions to promote basic needs.	<b>II. Physiological Domain</b> Includes diagnoses, outcomes, and interventions to promote optimal biophysical health.	<b>III. Psychosocial Domain</b> Includes diagnoses, outcomes, and interventions to promote optimal mental and emotional health and social functioning.	<b>IV. Environmental Domain</b> Includes diagnoses, outcomes, and interventions to promote and protect the environmental health and safety of individuals, systems, and communities.
Classes			
includes diagnoses, class outcomes, and interventions that pertain to:			
<b>Activity/Exercise</b> —Physical activity, including energy conservation and expenditure.	<b>Cardiac Function</b> —Cardiac mechanisms used to maintain tissue perfusion.	<b>Behavior</b> —Actions that promote, maintain, or restore health.	<b>Health Care System</b> —Social, political, and economic structures and processes for the delivery of healthcare services.
<b>Comfort</b> —A sense of emotional, physical, and spiritual well-being and relative freedom from distress.	<b>Elimination</b> —Processes related to secretion and excretion of body wastes.	<b>Communication</b> —Receiving, interpreting, and expressing spoken, written, and nonverbal messages.	<b>Populations</b> —Aggregates of individuals, or communities having characteristics in common.
<b>Growth and Development</b> —Physical, emotional, and social growth and development milestones.	<b>Fluid and Electrolyte</b> —Regulation of fluid/electrolytes and acid base balance.	<b>Coping</b> —Adjusting or adapting to stressful events.	<b>Risk Management</b> —Avoidance or control of identifiable health threats.
<b>Nutrition</b> —Processes related to taking in, assimilating, and using nutrients.	<b>Neurocognition</b> —Mechanisms related to the nervous system and neurocognitive functioning, including memory, thinking, and judgment.	<b>Emotional</b> —A mental state or feeling that may influence perceptions of the world.	
<b>Self-Care</b> —Ability to accomplish basic and instrumental activities of daily living.	<b>Pharmacological Function</b> —Effects (therapeutic and adverse) of medications or drugs and other pharmacologically active products.	<b>Knowledge</b> —Understanding and skill in applying information to promote, maintain, and restore health.	
<b>Sexuality</b> —Maintenance or modification of sexual identity and patterns.	<b>Physical Regulation</b> —Body temperature, endocrine, and immune system responses to regulate cellular processes.	<b>Roles/Relationships</b> —Maintenance and/or modification of expected social behaviors and emotional connectedness with others.	
<b>Sleep/Rest</b> —The quantity and quality of sleep, rest, and relaxation patterns.	<b>Reproduction</b> —Processes related to human procreation and birth.	<b>Self-Perception</b> —Awareness of one's body and personal identity.	
<b>Values/Beliefs</b> —Ideas, goals, perceptions, spiritual, and other beliefs that influence choices or decisions.	<b>Respiratory Function</b> —Ventilation adequate to maintain arterial blood gases within normal limits.		
	<b>Sensation/Perception</b> —Intake and interpretation of information through the senses, including seeing, hearing, touching, tasting, and smelling.		
	<b>Tissue Integrity</b> —Skin and mucous membrane protection to support secretion, excretion, and healing.		

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From Dochterman, J. M. and Jones, D. A. (eds.), 2003. *Unifying Nursing Language: The Harmonization of NANADA, NIC, and NOC*. Washington, D.C.: NursesBooks.Org.

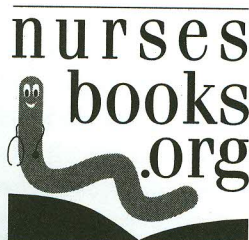
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The Publishing Program of ANA



**AMERICAN NURSES  
ASSOCIATION**

WASHINGTON, D.C.



**Library of Congress Cataloging-in-Publication Data**

Unifying nursing languages : the harmonization of NANDA, NIC, and NOC /  
Joanne McCloskey Dochterman and Dorothy Jones, editors.

p. ; cm.

Includes bibliographical references.

ISBN 1-55810-208-6

1. Nursing—Classification.

[DNLM: 1. Nursing. 2. Vocabulary, Controlled. Z 695.1.N8 U58 2003]

I. Dochterman, Joanne McCloskey. II. Jones, Dorothy A.

RT42U554 2003

610.73'01'2—dc21

2003004483

Published by  
NursesBooks.org  
600 Maryland Avenue, SW  
Suite 100 West  
Washington, D.C. 20024-2571

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ISBN 1-55810-208-6

UNL23      1.5M      03/03



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# Preface and Invitation

This monograph presents the process, content, and outcomes of the project funded by a National Library of Medicine grant (R13 LMO7243). The grant supported an invitational conference with a three-fold focus: articulating the assumptions underlying the individual languages of diagnoses, interventions, and outcomes; examining the existing taxonomic structures; and identifying the issues and preparing a first draft of a common taxonomic structure. The conference brought together leaders in nursing language development to create a common unifying structure across the three classification systems: NANDA for nursing diagnoses, NIC for nursing interventions, and NOC for nursing outcomes. You hold the results of that conference in your hands.

The editors, who were awarded the grant, serve as co-chairs of the NNN Alliance. The NNN Alliance represents a virtual and collaborative relationship between the North American Nursing Diagnosis Association (NANDA) and the Center for Nursing Classification and Clinical Effectiveness (CNC) at the University of Iowa. This alliance was created to advance the development, testing, and refinement of nursing language.

Having a common structure is more efficient than having separate structures and facilitates implementation of all the languages in practice and education. Many groups stand to benefit from a common unified nursing language classification, including educators, clinicians, researchers, and administrators. As well, informatics specialists will be able to integrate a common unified classification of nursing language into their development of information systems that can benefit from refinement, accuracy, and clarity of terms used to communicate nursing to others.

The contents of this monograph, however important a step forward for nursing science, are but a beginning. To advance nursing language overall and to increase its use throughout the discipline, continued feedback from all nurses will be needed. Since the common unifying structure proposed in these pages is in the public domain, nurses—whether involved in language development, education, administration and leadership, or clinical practice—are encouraged



to use the classification and help in its refinement. Opportunities to discuss the strengths and limitations of the proposed common structure will arise at open nursing forums, on web sites ([www.nanda.org](http://www.nanda.org) or [www.nursing.uiowa.edu/cnc](http://www.nursing.uiowa.edu/cnc)), and at the next NNN conference, to be held in April 2004.

### *About the Authors*

*Joanne McCloskey Dochterman*, PhD, RN, Distinguished Professor and Director of the Center for Nursing at the University of Iowa College of Nursing, is co-Principal Investigator (with Gloria Bulechek) of the Nursing Interventions Classification (NIC). She is a past member of the NANDA Board of Directors and co-chair of the NNN Alliance. She has also participated in the national efforts to develop a Reference Terminology Model for nursing. She has an extensive research and funding background in the areas of nursing administration and classification. She has participated in various efforts to link NIC and NOC with NANDA.

*Dorothy A. Jones*, EdD, RNC,FAAN, Professor, Boston College, Boston, MA is the immediate Past President of NANDA; she serves as Co-Chair of the NNN Alliance. She brings her work in knowledge development, nursing informatics and language development to this project. Dr. Jones has conducted multiple funded research projects that helped to identify nursing phenomena (interventions and outcomes) within a variety of clinical populations. In addition, she has developed and established the psychometric properties of the Functional Health Pattern Assessment Screening Tool (FHPAST), which uses as a conceptual framework the work of Gordon (1994). Dr. Jones has authored numerous publications in the area of nursing language.

*Geoffrey C. Bowker*, PhD, Professor in the Department of Communication at the University of San Diego, La Jolla, California. He has spent his academic career studying the structure of knowledge in various disciplines. He presented the keynote talk on the science of classification at the NNN 2001 conference and assisted in laying important groundwork for collaboration.

*Margaret Lunney*, PhD, RN, Professor and Program Coordinator, Master of Science in Adult Health Nursing at the College of Staten Island, City University of New York, has long involvement in NANDA and numerous publications on nursing diagnosis and critical thinking. Dr. Lunney completed an NIH funded study of the effects of using NANDA, NIC, and NOC on the health outcomes of school children. Her clinical and teaching background is in adult health and community health.



# Introduction: The Groundwork for Unification

# 1

Joanne McCloskey Dochterman  
and Dorothy Jones

In 1973, Kristine Gebbie and Mary Ann Lavin held the First Conference on the Classification of Nursing Diagnoses, a conference designed to classify health problems within the domain of nursing (Gebbie & Lavin 1975). This group later became known as the North American Nursing Diagnosis Association (NANDA). Over the years, other classifications, including the Nursing Interventions Classification (NIC) and the Nursing Outcomes Classification (NOC), were developed. As NANDA, NIC, and NOC have grown, each group has worked independently to classify, name, and define diagnoses, interventions, and outcomes in three separate structures. In an effort to promote the consistent use of a unified disciplinary language by all nurses, NANDA and the Center for Nursing Classification and Clinical Effectiveness at the University of Iowa (home to NIC and NOC) created a virtual NNN Alliance to facilitate movement toward the development of a unified nursing classification.

## *NANDA, NIC, and NOC: The NNN Alliance*

The NNN Alliance represents a virtual and collaborative relationship between the North American Nursing Diagnosis Association (NANDA) and the Center for Nursing Classification and Clinical Effectiveness (CNC) at the University of Iowa College of Nursing. The goal of this alliance is to advance the development, testing, and refinement of nursing language. This goal has been realized in part through the development of a grant proposal, designed to bring together leaders in nursing language development in order to create a common unifying structure across the three classification systems (i.e., NANDA—nursing diagnoses, NIC—nursing interventions, and NOC—nursing outcomes).

In 2001, Joanne Dochterman and Dorothy A. Jones, co-chairs of the NNN Alliance, received a grant from the National Library of Medicine (R13 LMO7243). The purpose of the grant was to support an invitational conference to focus on:

- articulating the assumptions underlying each language (diagnoses, interventions, and outcomes);



- examining existing taxonomic structures; and
- identifying issues and preparing a first draft of a common taxonomic structure.

Nursing leaders involved in nursing language classifications—particularly nursing diagnoses (North American Nursing Diagnosis Association, NANDA), nursing interventions (Nursing Interventions Classification, NIC) and nursing outcomes (Nursing Outcomes Classification, NOC)—were invited to participate in the conference.

## ***Invitational Conference***

In August 2001, an invitational conference was held at the Starved Rock Conference Center in Utica, Illinois, during which the participants studied existing language classifications, nomenclatures, and data sets. At the completion of the conference, a small task force compiled the work of the conference attendees and created the first draft of a common unifying structure for diagnoses, interventions, and outcomes (NANDA, NIC, and NOC). The proposed structure was then disseminated among conference participants and exposed to the nursing community for feedback at the NNN Alliance International Conference in April 2002 and on the NANDA and CNC web sites.

Feedback from nurse colleagues was on a international level, and revisions to the document were made on the basis of this new information. The manuscript, entitled *Collaboration in Nursing Classification: The Creation of a Common Unifying Structure for NANDA, NIC and NOC*, was prepared by Dochterman and Jones and is the second chapter in the present monograph. Table 2-6 (see Chapter 2, page 20) contains the proposed common structure. It is hoped that nurses interested in documentation, knowledge development, nursing classification, and language development, as well as information systems developers, educators, and administrators, will review and critique this document. This feedback will enable further refinement and testing of the proposed unifying structure.

## **Framework for Proposed Common Unifying Structure**

The developers of the proposed common structure used the clinical reasoning process and problem solving along with the work of Donaldson and Crowley (1978) and the American Nurses Association's *Nursing's Social Policy Statement* (1995) to guide the creation of a unifying structure. This knowledge provided a framework that fostered the linkages among NANDA, NIC, and NOC classifications.

Nursing language developers have historically been concerned with classifying phenomena of concern to nursing. Changes that result from nursing interventions are measured and described by the achievement of outcomes. Problem solving and clinical reasoning have been used to process information about the patient experience. Problem solving is structured within a model that relies on data (cues) obtained through assessment, resulting in a judgment or the identification of a patient problem (diagnosis). Nursing's goal is to relieve the problem by linking the judgment and related data to interventions "that restore function,



promote comfort and foster optimal health" (Jones 1997: 80). Outcomes are then measured, and responses to interventions are observed. Within nursing, the clinical reasoning process is guided by the ANA, according to *Standards of Clinical Nursing Practice, 2<sup>nd</sup> Edition*. (1998).

Donaldson and Crowley (1978) cited three core nursing principles that also informed the developers of the proposed common unifying structure. These principles include (a) concern with principles and laws that influence life principles, well-being, and optimum functioning of humans sick and well; (b) concern with the patterning of human behavior in interaction with the environment in critical life situations; and (c) concern with processes by which positive changes in health status are affected.

The American Nurses Association's *Nursing's Social Policy Statement* (1995) provided additional focus direction for developers. In particular, the *Social Policy Statement* states that "the phenomena of concern to nurses are human experiences and responses to birth, health, illness and death" (p. 8). The *Statement* goes on to define concepts that were central to the creation of the common structure, including (a) diagnoses, "the identification of responses to actual or potential health problems"; (b) interventions, "actions nurses take on behalf of patients and families or communities . . . to improve, correct or adjust physical, emotional, psychosocial, spiritual, cultural, and emotional conditions"; and (c) outcomes that evaluate "the effectiveness of interventions in relation to identified outcome" (pp. 1 & 9).

Knowledge from these resources provided the conference participants with a common framework to guide the creation of a unifying structure and to name and define domains and classes within the proposed classification. The framework was applicable to individuals, families, and communities and allowed for the integration of specific nursing theories to guide problem identification, diagnosis, intervention selection, and outcome evaluation.

## *Presentation Format for the Monograph*

This monograph presents the process, content, and outcomes of the National Library of Medicine's funded project (Dochterman & Jones 2001). Conference papers and deliberations contained within the monograph are presented in three sections (1) the Main Paper, (2) Supporting Background Papers, and (3) Conclusion. In addition, three appendices are also incorporated into the document to support the presentations.

**The Main Paper:** Entitled "Collaboration in Nursing Classification: The Creation of a Common Unifying Structure for NANDA, NIC, and NOC," the main paper (Chapter 2) focuses on the invitational conference overall and on the iterative process for developing the common structure. The paper provides the background of existing nursing languages and the steps and methods used to generate a common unifying structure for NANDA, NIC, and NOC. The proposed common unifying structure for NNN includes domains and classes with definitions. The paper also discusses comments received since it was disseminated at the April 2002



NNN conference and web site responses; addresses issues concerning the overall structure, as well as term definitions and major unresolved issues; and reviews changes made in the structure since it was first developed.

**Supporting Background Papers:** The background papers include two papers presented during the Starved Rock Conference in order to provide the reader with additional information used by participants prior to developing the proposed common unifying structure.

The first paper is by Margaret Lunney, professor at the College of Staten Island, City University of New York. Her paper, entitled "Theoretical Explanations for Combining NANDA, NIC, and NOC," discusses the differences in the structures of NANDA, NIC, and NOC (NNN) and focuses on the difficulties users have encountered in identifying interrelationships among the three classification systems. The presentation speaks to past efforts to develop a common structure for NNN and their limitations related to practical utility without theoretical explanation. Lunney offers three theoretical explanations that support the significance of combining NNN: (1) Hayakawa's theory of linguistics, (2) critical thinking in nursing, and (3) the concept of accuracy and nursing diagnoses.

Hayakawa's theory of linguistics states that classification systems are essential for communication and collaboration and that the pooled knowledge within these systems helps us address the real world of nursing and practice. Critical thinking literature suggests that reducing the complexity of NNN will help improve the efficiency and effectiveness of nurses' discernment of diagnoses, interventions, and outcomes. Nursing diagnoses are more likely to be accurate when effective reasoning and critical thinking are associated with a more unified NNN.

Geoffrey Bowker, a professor in the Department of Communication at the University of California, San Diego, is the author of the second background paper, entitled "The Science and Art of Classification." Bowker addresses the central role of classification in both the scientific operation and organizational work of nursing and other professions. He also explores the strategy used by the August 2001 NNN invitational conference group in working with an interlocking set of classifications that focus on nursing work (nursing interventions), nursing diagnoses, and nursing outcomes. The paper draws on the literature in the study of classification in medicine, virology, and taxonomy to elucidate the features of nursing classification work. Bowker takes the example of the NIC classification, which he has studied over the past decade, to draw conclusions about the art of classification. The discussion supports the idea that classification work is central to the creation of professions and emphasizes that even though this work is often hidden from view, it is essential to the building of robust informational and organizational infrastructures.

**Conclusion:** Suggestions are made as to the uses of the proposed unifying nursing classification by educators, clinicians, researchers, and administrators.

Both NANDA and Mosby Year Book (the publisher of NIC and NOC) have given permission to include current labels and definitions in this monograph's appendices. As developers of NANDA, NIC, and NOC continue to expand or refine their existing classifications based upon research and clinical use, this information will appear in respective publications for each group. In the future, each



group's publication will also include placement of NANDA diagnoses, NIC interventions, and NOC outcomes within the new common unifying structure.

Since the proposed common unifying structure for NANDA, NIC, and NOC is in the public domain, nurses involved in language development, education, administration and leadership, and clinical practice are encouraged to use the classification. Continued feedback from all nurses will be needed in order to advance nursing language overall and to increase its use throughout the discipline.

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