Informatics: The Infrastructure for Quality Assessment and Quality Improvement in Nursing

The invitational working conference entitled "Informatics: The Infrastructure for Quality Assessment and Improvement in Nursing" followed the Fifth International Nursing Informatics Congress, which was held in San Antonio, Texas, June 19–22, 1994. Approximately 1,000 participants from more than 40 countries attended the Congress. Previous venues of the Congress have been London, England; Calgary, Canada; Dublin, Ireland; and Melbourne, Australia. Each Congress has been followed by an invitational working conference focused on a specific theme related to nursing informatics.

The conceptual underpinnings for the 1994 invitational working conference came from two areas: quality assessment and improvement and medical informatics. Quality assessment and improvement utilized the classic model of quality assurance adapted from systems theory by Donabedian, which involves an assessment of structure, process, and outcomes in the evaluation of health care quality. The informatics framework utilized a conceptual framework for the study of nursing knowledge, as described by Graves and Corcoran. This framework includes the concepts or substance of nursing knowledge (data, information, and knowledge) and the procedural knowledge or heuristic related to the management and processing of the concepts. The specific conference aims were:

1. To provide state-of-the-science presentations on topics related to informatics as the infrastructure for quality assessment and improvement in nursing.
2. To establish an environment for global networking of international colleagues.
3. To promote advancement of the state of the science by the generation of action agendas targeted at practice, education, research, and administration.

These aims were achieved through formal presentations, group discussions, and networking opportunities under the direction of cochairs William Holzemer and Marianne Tallberg. The Scientific Program Committee for the Fifth International Conference on Nursing Use of Computers and Information Science served as the advisory group for the conference. Members included:

Elly Pluyter-Wenting, The Netherlands (Chair)
Ulla Gerdin, Sweden
Susan J. Grobe, USA
Evelyn Hovenga, Australia
Kathleen A. McCormick, USA
Virginia Saba, USA
Wing-Fun Helen Sit, Hong Kong
Marianne Tallberg, Finland

Formal presentations reviewed the essential requirements for an informatics infrastructure designed to support quality assessment and improvement. These included standardized vocabularies that describe patient problems and characteristics; health care interventions, patient outcomes, and intensity of care/resources required; computer-based methods to examine the linkages among patient problems and characteristics; and an integrated clinical information management environment. The following presentations provided background and served as a starting point for the group discussions and the formulation of the action agendas.

Informatics: The Infrastructure for Quality Assessment and Improvement in Nursing
Suzanne Bakken Henry, USA

Clinical Nursing Vocabulary: Current Data Definition Projects
International Council of Nursing International Classification for Nursing Practice
June Clark, United Kingdom
Nursing Terms Project
Anne Casey, United Kingdom
American Nurses Association Database Steering Committee
Norma Lang, USA

TELEnursing Project: European Union, Advanced Informatics in Medicine
Randi Mortensen, Denmark
Variation in Practice: The Challenge of Outcome Assessment
William L. Holzemer, USA

Structure Control: Risk-Adjusted Outcomes
Linda-Lee O'Brien-Pallas, Canada

Process Control: Clinical Practice Guidelines
Carole Hudgings, USA

Process Control: Care Planning as a Strategy to Control Variation in Practice
Derek Hoy, Scotland

Process Control: Critical Path Analysis
Rosa Portus, Australia

Outcome Control: Decision Analysis for Patient Satisfaction
Patricia F. Brennan, USA

Outcome Control: Clinical Markers
Rita Zielstorff, USA

Four discussion groups were each led by an expert in the field of nursing informatics. They examined the implications of the topics through discussion and the formulation of specific questions and action agendas. The group leaders included:

Administration—Elly Pluyter-Wenting, The Netherlands

Education—Margareta Ehnfors, Sweden

Practice—Anneli Halttunen, Finland

Research—Walter Sermeus, Belgium

Additional conference participants included Tove F. Buch (Denmark), Majda Fajdetic (Croatia), Carole Gassert (USA), Helmer F. Martin (Brazil), Gunnar Nielsen (Denmark), Marilyn Patililo (USA), Patricia Pryshchen (Canada), Cheryl Relly (USA), Diane Sallows-Walsh (Canada), Roy Simpson (USA), and Elizabeth van Gennip (The Netherlands).

In an effort to disseminate the ideas beyond the conference audience, each presenter was given the opportunity to recast his or her material in a manuscript for review and revision through the JAMIA editorial process. Three such papers appear in this issue and more will appear in the July/August 1995 issue. The complete proceedings of the conference, including the action agendas, will be published in fall 1995 by the University of California, San Francisco, School of Nursing Press.

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Marianne Tallberg, RN, PhD

References


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