

9-1-1993

Knowledge Synthesis - What Is It?

Judith A. Floyd

Wayne State University, ab9208@wayne.edu

Recommended Citation

Floyd, J. A. (1993). Knowledge synthesis - what is it? *Michigan Nurse*, 66(8), 8-9.
Available at: <http://digitalcommons.wayne.edu/nursingfrp/8>

This Article is brought to you for free and open access by the Nursing at DigitalCommons@WayneState. It has been accepted for inclusion in Nursing Faculty Research Publications by an authorized administrator of DigitalCommons@WayneState.

Knowledge synthesis – What is it?

by Judith A. Floyd

Knowledge synthesis is part of any research utilization project and also a necessary step in developing research proposals. This process produces a status report on what is known about a clinical phenomenon, the effectiveness of a specific approach or the usefulness of a theory.

Three major approaches to knowledge synthesis are: narrative, quantitative and consensus. The narrative synthesis is the most common. It is usually done by a single individual or small group and consists of a verbal or descriptive interpretation of a body of research on a given topic.

The quantitative synthesis is referred to as "meta-analysis." It involves statistical analysis of data combined mathematically from many studies on the same topic.

The third approach, consensus synthesis, results from a panel of highly qualified individuals who combine their professional experience with research results. Structured or non-structured group judgment methods are used to achieve a formal agreement regarding inferences and conclusions appropriate to draw from the research base. A recent example of the consensus synthesis is the use of nationally recognized health care experts – including nurse clinicians and nurse researchers – to develop the clinical guidelines now being disseminated by the Agency for Health Care Policy and Research.

Most research utilization projects in nursing have used narrative synthesis combined with informal consensus approaches.

Research Notes is sponsored by the Cabinet on Nursing Research.

Most research utilization projects in nursing have used narrative synthesis combined with informal consensus approaches to review research reports and decide if the results are ready for clinical use or require further study. This combined approach to knowledge synthesis works well for small groups of nurses in clinical settings. When such a group decides to synthesize scientific knowledge, the first step is to consider who needs to be involved.

The previous experience of research utilization groups suggests that nurse administrators, practicing nurses and nurse methodologists are needed to make judgments about the clinical validity, scientific validity, and feasibility of clinical guidelines or further studies suggested by the knowledge synthesis.^{3,2}

The basic steps in knowledge synthesis are: (a) identifying the topic, (b) retrieving research reports, (c) reviewing research reports and integrating the findings. The third step is often the most intimidating, but continuing education films on the process of reviewing and integrating research to improve nursing practice are now available.^{4,5,6} The films can be very helpful in getting a group started. Increasing numbers of clinical specialists learn research utilization skills in their master's programs. They often have contacts with doctorally-prepared

nurses who specialize in clinical research and its utilization, who can serve as consultants.

Once a group of nurses has determined what is known about a topic of interest, recommendations can be made from this knowledge to guide practice or to ask researchers to explore the topic further. How can the group decide which is the better course of action? The Conduct and Utilization of Research in Nursing (CURN) project staff listed the criteria for considering what to do with research findings – the scientific merit of the studies, whether findings have been replicated, and the risks to patients are all considered as well as clinical merit, control, cost, and feasibility.¹

The results of the knowledge synthesis conducted by a group of nurses for their own setting is often worth sharing. A new journal, developed specifically for making the results of knowledge synthesis activities available to other nurse clinicians and researchers, is "The Online Journal for Knowledge Synthesis in Nursing," published by Sigma Theta Tau International. All the articles will contain: (a) a statement of the practice problem or issue; (b) a summary of related research; (c) an annotation of each reference judged to be of critical importance; (d) a description of practice implications; and (e) an identification of what is not known from the existing research with specific priorities for needed studies.

More studies are addressing clinical phenomena in nursing. When the results of these studies

are synthesized, they can validate or fail to validate the cost-effectiveness or utility of long-standing practices or beliefs; suggest new, more innovative approaches; and help practitioners choose between competing theories or interventions. Groups of clinically-based nurses who participate in knowledge synthesis have an opportunity to influence what nurse researchers choose to study.

Learning knowledge synthesis techniques takes time, energy and collaboration, but the rewards for the patients and nursing staff in the settings which choose to engage in knowledge synthesis activities can be great. Patients will receive care based on the latest knowledge, and nurses will have the satisfaction of helping themselves and others use research to improve practice.

The nursing profession has invested a great deal in the preparation of researchers, the conduct of clinical studies and the dissemination of results through written research reports. As more nurses become involved in knowledge synthesis, the profession will see a greater return from its investment in research.

References

1. Haller, K., Reynolds, M. & Horsley, J. (1979). Developing research based innovation protocols: Process, criteria, and issues. *Research in Nursing and Health*, 2, 45-51.
2. Horsley, J., Crane, J. & Bingle, J. (1978). Research Utilization as an Organizational Process. *Journal of Nursing Administration*, 8, 4-6.
3. Goode, C., Lovett, M., Hayes, J., & Butcher, L. (1987). Use of research based knowledge in clinical practice. *Journal of Nursing Administration*, 17, 11-18.
4. "Using Research in Clinical Nursing Practice" (film) 1987. Ida Grove, Iowa: Horn Video Productions.
5. Research Utilization: A Process of Organizational Change" (film) 1989. Ida

Grove, Iowa: Horn Video Productions.
6. Reading and Critiquing a Research Report" (film) 1991. Ida Grove, Iowa: Horn Video Productions.

Judith A. Floyd, PhD, RN, is Associate Professor, Psychiatric and Mental Health, Wayne State

University College of Nursing and a member of the MNA Cabinet on Nursing Research and the Task Force on Impaired Professionals. She is former Director of Nursing, Residential Program, Lafayette Clinic, Detroit.

pre-convention conference



Sharing, communicating and embodying the vision:

Influencing health care through effective communications

During these times of accelerated and unprecedented change, nurses must learn to increase their awareness, focus their energy, engage in critical thinking, anticipate the future, and work more effectively with others. In this six-hour session you will learn effective communication strategies to get your message across.

- Learn to address individual and organizational paradigms – and increase your ability to move beyond them.
- Learn to maximize personal potential to lead self and others and to remain on purpose while shaping the present for the future.
- Understand your own leadership and communication style and how to work more effectively with others.
- Explore the changing role of leadership and how to meet its challenges.
- Examine the impacting power of verbal, vocal and visual messages.
- Share strategies to develop working relationships with the media, meet the media with confidence, and present yourself and your ideas in a professional, polished manner.
- Learn to utilize approaches to maximize results-oriented change.

This seminar will be led by nationally-recognized communication consultant Marilyn Semonick. As a highly regarded stimulator of action, Semonick has inspired thousands of individuals during the past 17 years to realize and activate their individual and organizational excellence.

To register, see page 15.

October 25 – Flint Radisson Hotel