Reflexions on Research as a Tool for Professional Development

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Interest in Research Is a Journey of Discovery
- Definition of Research
- Modes of Knowledge Acquisition
- Research: Uses and Applications
- Problems Encountered in Research
- Suggestions to Incorporate Research into Our Daily Lives
- New Tools at Our Disposal
Research is fundamental to the evolution of any discipline. However, the focus of research in health and education must always remain the individual.

In our field, research must always be conducted with the objectives of nursing in mind.
The objective of nursing is to help a person (family, group or community) take charge of his health according to his own capacity and the resources available at any stage in his life or in the disease. Nursing also aims to help the individual ensure his well-being and to enjoy a good quality of life.

Research is often a long, difficult journey which requires planning in order to be properly conducted.
Etymology: from the Latin term “curvis, circa, circus” which implies the meaning of a circle, to discern or define. The semantics convey a sense of action within a clearly defined space and limits, and of distinguishing, differentiating and recognizing elements.
The prefix re- in REsearch does not denote restarting or repeating something, but rather the intensity or depth of the process.

Source: Chantal Eymard, 2003, p. 3
What Is Research?

- Research is a cognitive process created from a set of works which are thoroughly investigated (i.e. planning, observing, organizing, analyzing data and so on).
- Research is conducted according to a recognized method (experimental research, quasi experimental research, descriptive research, predictive research, action research, and so on).
- The objective of research is to make discoveries and to develop a body of validated scientific knowledge.
- In nursing and in education, research may focus on biological, intellectual, emotional, sociological, technological and technical aspects.
Research is the method favoured by humans for acquiring knowledge.
Knowledge Acquisition Methods

- **Intuition** is an instantaneous mechanism for understanding which does not rely on conscious reasoning. Intuition is never completely absent from the research process.
- **Trial and error** is a long, random process which researchers attempt to avoid.
- ** Tradition and authority** refers to routine tasks (practically institutionalized) in nursing which are either supported by or disproved by research.
Modes of Knowledge Acquisition

- **Borrowing and integrating knowledge** from other disciplines. As in any other modern profession, nurses look to a wide variety of sources of information: medicine, ethics, psychology, sociology, anthropology, and so on. These additions enhance the nursing profession.

- **Personal experience** always plays an important role, even when seeking proven data and research.

- **The choice of research topic**, discriminating between valid and invalid data, and critical thinking are all too often associated with the personal experience of the researcher.
Knowledge Acquisition Modes

The Heuristic or Scientific Approach

- A labor-intensive, complicated method which nonetheless helps to establish relationships among various phenomena such as cause and effect, and to identify less obvious aspects of certain elements.

- The scientific approach does not exclude other knowledge-acquisition modes; instead, it is applied when the other methods cannot provide conclusive evidence.
Failure to conduct research in a given field means that it will fail to evolve, likely stagnate, and possibly even regress.
This stuff is too serious. I enjoy it better when there’s a touch of humour.

Why not? That would stimulate the nucleus accumbens and generate sufficient motivation to pursue research.
Acting on the nucleus accumbens generates a feeling of pleasure, motivates the individual as well as the desire to pursue research through the effect of dopamine, the molecule of the brain which creates a sensation of well-being.

That’s great! But how does it work?

The nucleus accumbens and the ventral tegmental area (VTA) are among the areas of the brain involved in the sensation of pleasure and reward. These two areas are especially important when it comes to the reward circuit.

The nucleus accumbens connects the **limbic system**, in which the emotions and the **basal ganglia** are located, help in **planning movement** and reasoning.

Thus the nucleus accumbens through pleasure is involved in controlling our motivations.

Source: Le cerveau à tous les niveaux/The Brain from Top to Bottom (see http://lecerveau.mcgill.ca)
Show me where it is!

Look!
It’s right there!
Let’s go! My nucleus thingy is feeling good!!
Research in Nursing and in Education
Concern for scientific aspects date back in history.

Florence Nightingale was a pioneer in nursing research.

Nursing research has been an organized discipline for barely 30 years.

The U.K. and the USA were the first to initiate research in nursing.

Even with limited means at their disposal, many countries pursue research in nursing.

In Québec, clinical research has made great strides over the past few years, and emphasis is placed on the role of the nurse in the health care system.
Needs for Development in Nursing Research

• Many nurses are now focused on developing and formalizing their knowledge even further so that they can offer better quality, more professional services to patients and meet modern-day requirements and ethics.

• Training nurse clinicians, pivot nurses, specialized nurses and nurses working in advanced practice requires in-depth knowledge about the needs of their clienteles and how to respond to those needs in accordance with findings provided by research. In the end, research opens doors and possibilities.
Health care organizations, already multidisciplinary by nature, are subject to a wide variety of rules and regulations as well as scientific, technical and ethical standards. Research makes it possible to assess and evaluate our performance and to shed light on the strengths and weaknesses within the network.

We must get involved as interveners in order to take the pulse of society and of the health care system and to evolve with it.

Nurses are a major spoke in wheels of the system. Our profession is therefore essential to research, its conduct, its development and its progress.
We are in an era of change marked by a shortage of nurses which will force us to make choices and to focus on the essential activities of our profession.

How will we meet this challenge? What is the future of the nursing profession? How will it evolve? Research can shed light on the future and guide us in making enlightened decisions.
Uses and Applications of Research in Nursing
Why conduct research if it is so time-consuming and difficult?
Nurses Conduct Research for Many Reasons

- To improve the quality of care, of education and of training;
- To develop new knowledge and practices;
- To explore and develop new roles;
- To shed light on the strengths, weaknesses, opportunities for further development and remedial measures which are required within our profession as well as on the best means to implement them successfully;
- To translate theoretical knowledge into practice;
- To discover new means to promote disease prevention and health care;
- To improve the work conditions of employees.
Research makes it possible to...

- Analyze problems
- Describe what is happening
- Evaluate and compare results
- Discover new knowledge
- Solve problems
- Explore new methods
La recherche oriente nos décisions vers des interventions appropriées. Elle donne à notre profession une visibilité importante. Elle nous confère une crédibilité professionnelle accrue.

Research Makes Concrete Contributions to the Nursing Profession

Quality  Credibility  Visibility
Why Do Nurses Need Research? (1)

Our normal vision of what surrounds us:

- Is not always grounded in fact. It depends more on experience than experience;
- Is limited by our knowledge;
- Can stifle critical thinking and erode curiosity as a result of automatism and habit.
Why Do Nurses Need Research? (2)

Our normal vision of what surrounds us is:

- Conditioned by (our) fragile and superficial perceptions;
- Moderated by outside conditions;
- Shrouded by proximity.
When trees hide the path in the forest, we must become aware of our surroundings and find a way out.
Why Do Nurses Need Research? (3)

- Our vision of the events that surround us is partial, imprecise and often subjective.
- Remember the story of the blind men and the elephant.
Three blind men, unaware that such an animal even existed, were allowed to touch an elephant.

The first blind man touched the elephant’s trunk and declared that it was like a hose.

The second blind man touched the body and declared that it was like a wall.

The third blind man touched the tail and, stunned, declared that it was like a rope.

Each blind man perceived the elephant differently and only obtained a partial idea of what an elephant actually was.

In real life, we are often like the three blind men.
What Can Research Contribute?

- A systematic knowledge-acquisition process centred on observation, research, clarity, objectivity and precision.

- A pertinent methodology for each element to be investigated.

- Serious foundations based on what has been said, observed and concluded by experts in the field.

- Acquisition and development of scientific knowledge.
All health care sectors need research.

• **In education:** to adapt the modes of learning of students to their skills and to competencies required for working independently as nurses, to integrate ICTs in their duties, and so on.

• **In care management:** to find conclusive evidence in order to renew organizations, enhance coordination, improve care delivery, make enlightened human resources decisions, remain on top of changes in the profession, implement and evaluate new techniques and technologies, experiment work methods and schedules that improve the quality of life of nurses, and so on.
Clinics need research to develop more efficient and functional work methods as well as better care and services. Research is required to:

- Evaluate a variety of protocols and care administration methods;
- Ascertain the relevancy of materials used;
- Identify new, efficient means to shorten hospital stays without damaging the health and well-being of the patient;
- Improve the quality of life of cancer patients;
- Find means of interventions which allow psychiatric patients to become independent or autonomous;
- Find the optimal means to stimulate persons in loss of autonomy and so on.
Technical research is usually better accepted.

The machinery and equipment used in basic care delivery are developed through technical research.

This type of research is consistent with the trend toward mechanization in health care.
Similar problems are encountered when conducting research in education and nursing, including lack of:

- Time
- Means
- Funding
- Training
- Support
- Recognition
Common Problems in Research in Health Care and Education

Lack of interest in:
- Ongoing research;
- Results of studies;
- Participating in ongoing studies.

Lack of motivation to:
- Become aware of ongoing research in our institutions;
- Apply research results in nursing and education.
Other Significant Problems

Lack of time is another great problem which plagues research initiatives.

It can also be a convenient excuse.
Research can nonetheless enlighten us. Research can provide us with conclusive evidence which can guide us in our decisions. Unfortunately, decisions are often made in a random, *ad hoc*, arbitrary manner and are dependent upon the knowledge of the decision-makers at all levels.
The problems we encounter today are often the result of erroneous decisions made in the past. Research might have helped avoid those mistakes.
Despite its necessity, research in nursing and education still remains the unloved child of the profession. Few grants are available, credit is not attributed and even nurses and teachers show little interest in conducting research.
In What Areas Can Research Innovate or Improve Our Lives?

- Methods used in health care delivery
- The organization of work and work schedules
- The selection of the materials used
- Interventions in an autonomous or prescribed function
- The traditional view of the profession by nurses despite staff shortages
- Teaching methods (i.e. use of ICTs, dynamic strategies centred on problem solving)

Research should be planned according to the potential benefits to patients, students and employees in both nursing and education and conducted in both an efficient and effective manner.
How is your nucleus accumbens...?

Can we proceed?
It is worthwhile asking why we do not enhance the visibility of our profession and expose our potential for improving prevention, treatment and case management in our health care institutions.
Why are we not concerned about presenting our field as a more prestigious, scientific discipline?

Why are we not striving to prove that we can make a difference in the health care system?
Nurses are aware of the problems in the health care system and realize the potential consequences of those problems.

They think about potential solutions and conceive of means to make the system more efficient.

The question is what do they do with their observations, about the problems they have identified and about solutions to remedy them.

They do not dare explore those solutions further or to conduct research to solve the problems. They mistakenly believe that everything is left to a few elite figures.
I wonder if there are reasons why nurses and teachers are little inclined to conduct research.
A Few Answers

- Our low self-esteem
- A tradition of submission
- Our low level in the professional hierarchy
- Our status as women
- Time constraints arising from the dual task of nurse and investigator
Our down-to-earth approach of dealing with events as they occur.
What can we do so that research papers in nursing and education are consulted, read and applied?

How do I get eggs out of the same basket?

Disseminating studies in nursing departments, in colleges and in universities in order to keep nurses and nursing students informed of the latest developments is key.
It is also necessary to develop a culture of research in health care and educational institutions.

Is that enough?
We must also encompass research in our daily lives.

Doing so helps us develop the following skills: evaluating and comparing our results, examining our roles within our profession, identifying new, better ways of doing things and improving overall performance.

Gosh…!!
Suggestions to Promote Research (1)

Use your network of administrators and leaders and ask them to:

- Initiate and support research initiatives;
- Organize information meetings and promote the reading of topics of interest;
- Serve as role models;
- Suggest that research findings be applied in health care and in education.
Suggestions to Promote Research (2)

**Use teachers to:**

- Transmit information on research topics as soon as students begin training;
- Encourage students to use critical thinking to stimulate their curiosity and interest in conducting research;
- Evaluate currently applied strategies;
- Use research to test new teaching strategies.
Other Suggestions to Promote Research

Each of us should strive to:

- Improve communications and cooperation among researchers and practitioners.
- Reinforce the lines linking research, training, administration and clinical practice.
- Provide technological and methodological support to individuals who wish to undertake a research project.
- Encourage exchanges among researchers.
- Instil a culture of ongoing education and self-improvement through research in education and nursing.
- Favour the analysis of professional practices and formalize their application through research.
- Highlight scientific excellence, methodology and achievements in nursing research.
Means Available to Researchers (1)

To promote research in education and to provide support to investigators, you may consult the following organizations:

- The Association pour la recherche au collégial (ARC) is a worthwhile resource.
- The Programme d’aide à la recherche sur l’enseignement et l’apprentissage (PAREA) offered by the Ministère de l’Éducation, du Loisir et du Sport (MELS) is an initiative to contribute to research within the college network (see: http://www.ccdmd.qc.ca/correspo/Corr13-1/Parea.html)
- Infiressources.ca is also an excellent resource for nurses, teachers and students to find out more about the latest developments in the nursing profession.
Means Available to Researchers (2)

- The Canadian Nurses Foundation (CNF) offers a research partnership program in nursing:  [http://www.cnf-fiic.ca/associatesfre.htm](http://www.cnf-fiic.ca/associatesfre.htm)
- The Canadian Health Services Research Foundation (CHSRF):  [www.chrsrf.ca/nursing_research_fund/index_e.php](http://www.chrsrf.ca/nursing_research_fund/index_e.php)
Another Suggestion Is to Apply the Theory of Dissemination and Innovation (Martha Rogers) (4)

This is a four-stage process:

- **Knowledge-acquisition:** Use various sources of knowledge such as what others say, readings and research findings.
- **Gentle Persuasion:** Use the leadership of administrators, teachers and fellow researchers to promote the benefits of research. Avoid arguing and autocratic behaviour which can prove counter-productive to your objectives.
- **Decision-making:** Accept the results of the research and the innovation, at least on a trial basis.
- **Integration:** Apply the research findings in nursing and education.
In real life, developments in the nursing profession depend upon all of us. They are our collective responsibility.
Is your nucleus accumbens still stimulated...?

Are you still motivated to learn more?
Hear ye! Hear ye!

If you answered yes, the nursing profession is already getting better.
Valuable tools are now available to researchers in health and in education. They are: 1) benchmarking; 2) the use of proven results; and 3) the availability of ICTs.
Benchmarking

Benchmarking is a comparative analysis which serves to identify the best practices and to guarantee that the delivery of care is administered and managed efficiently and effectively. Benchmarking involves studying and analyzing techniques, systems (administrative), other organizations and so on to draw out the best practices in order to improve efficiency and to enhance performance.

It is a continuous research process in which comparing oneself to others helps draw out best practices. Benchmarking involves comparing oneself to the leaders in our field or profession, and drawing inspiration and new ideas from the example those leaders have set.

http://en.wikipedia.org/wiki/Benchmarking
Benchmarking can be used to raise documentation when conducting research; it is also practical in dynamic, comparative and evaluative research. It helps researchers postulate hypotheses on means to bring about required changes in a given field.
Research Results

Rigorous, scientific data investigated by experts who enjoy considerable credibility in their respective fields.

Research results are compiled and made available to researchers and decision-makers by profit and non-profit organizations and institutions (see: The Cochrane Collaboration).

http://www.cochrane.org/
Research results are applied to various experiments through meta-analyses and meta-syntheses in order to question existing practices as well as to uncover and implement new, more efficient ways of offering care and services to patients.
The Cochrane Collaboration

The Cochrane Collaboration is a non-profit, international organization which supports professionals by attempting to improve decision-making globally through systemic reviews of the effects of healthcare interventions.

Principles:
  . To support the dissemination and updating of reliable scientific data;
  . To make the evidence available to decision-makers.
What Does the Cochrane Collaboration Provide?

- The results are published in articles in a scientifically organized review and which provides literature on a subject that has been examined.
- Decision-making in nursing is guided by quality research conducted worldwide.
- Nurses and teachers should visit the Canadian Cochrane Centre: http://www.ccnc.cochrane.org/en/about.html
New decision-making tools are now at our disposal.

Decision-making

- Tradition
- Clinical expertise
- Intuition, personal knowledge
- The desire of the patient
- Professional resources
- Benchmarking
- Research results and evidence
- Research data
Research Results or...

The doctor tells the patient: You have two options:
A. Treatment based on proven research results.
B. Promising experimental treatment which carries some risk.
Which do you prefer?
Knowledge is navigating in a sea of uncertainty through archipelagos of certitude.

(TRANSLATED from Edgar Morin: UNESCO, 1999).

It is best to put all opportunities on our side!
Information and communications technologies facilitate research:

• Questionnaires (i.e. NetSondage) can be used to gather and retrieve data more rapidly and economically than ever before, while increasing the number of respondents to reduce the margin of error of the sample.
• Spreadsheets help compile data.
• Statistics software (i.e. SPSS, Le Sphinx) can save time by performing complicated calculations rapidly and by posting data in a comprehensive manner.

http://www.ccdmd.qc.ca/ressources/?id=1246
http://www.spss.com/fr/
http://www.lesphinx-developpement.fr/fr/accueil/accueil_sphinx.php
In the end, it should be remembered that research is a collective responsibility, and that we should all feel concerned about the conduct of research.
Nucleus accumbens or…

Thank you for your attention!
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