

Health Services Researcher Pathway

Glossary of Terms

Attitudes

Values and beliefs associated with and the ability to contribute to the research process (e.g., “I believe that the research process is important to improve quality of care” or “I am open to learning through a research process” or “I am willing to collaborate with others on research and quality improvement projects”); attitudes shape behaviors.

Competency

A set of defined behaviors that provide a structured guide enabling the identification, evaluation and development of behaviors in a profession. A competency includes knowledge, skills and attitudes.

Complex Intervention

Interventions (therapeutic or preventative) that consist of multiple behavioural, technological, and organizational components. Complex interventions are common and important features of healthcare practice and research. However, they pose special evaluation problems because their components may act independently or interdependently, and it is often difficult to determine the relationships between them.

Data Analysis Methods (see [Methods](#))

Data Extraction

The act or process of retrieving data (e.g., article objectives, methods, sample size, findings, etc.) from full-text article data sources for further data analysis.

End-of-Grant Knowledge Translation

A form of Knowledge Translation (KT) that focuses largely on dissemination activities at the end of a research project. In end-of-grant KT, messages are tailored for specific audiences and with various intensities from diffusion to dissemination to application via traditional routes (e.g., academic conferences and peer-reviewed journals) to more innovative strategies to promote uptake of new knowledge (e.g., engaging the media). See the definition at the Canadian Institutes of Health Research (CIHR): <http://www.cihr-irsc.gc.ca/e/39033.html#Two-Types-2>

Evidence-Based Practice (EBP)

An act that entails making decisions about how to promote health or provide care by integrating the best available evidence (i.e., current research findings) with practitioner clinical experience and expertise and with the characteristics, state, needs, values and preferences of those who will be affected (i.e., patient needs and preferences) taking into consideration the nature and norms of the setting and culture within which healthcare is being delivered.

Evidence Informed Practice (EiP)

A continuous, interactive process involving the explicit, conscientious, and judicious consideration of the incorporation of the best available research evidence, clinical expertise, client preferences, and other available resources to make decisions about patients and to provide care. Some scholars argue that EiP is not always research-based; it rather takes into account a range of information in addition to empirical evidence (Rycroft-Malone, 2008; Rycroft-Malone et al., 2012).

Grey Literature

Information which has not been published or which, although published, cannot be found through readily accessible sources. Grey literature can take many forms across multiple disciplines, including conference proceedings, theses and dissertations, research and technical reports, census information, and ongoing research.

Health services research

Research with the goal of improving the efficiency and effectiveness of health professionals and the healthcare system, through changes to practice and policy. Health services research is a multidisciplinary field of scientific investigation that studies how social factors, financing systems, organizational structures and processes, health technologies, and personal behaviours affect access to healthcare, the quality and cost of healthcare, and, ultimately, Canadians' health and well-being.

Indicators

Specific knowledge, skills and attitudes for each competency mentioned in the literature.

Informed Consent

A vital part of the research process that entails educating potential study participants about the details of a study to ensure that they can reach a truly informed decision about whether or not to participate in the research. Informed consent must be given freely, without coercion, and must be based on a clear understanding of what participation involves.

Information and Communication Technologies

A more specific term for information technology (IT) that stresses the role of unified communications and the integration of telecommunications (telephone lines and wireless signals) and computers, as well as necessary enterprise software, middleware, storage, and audio-visual systems. In this way, information and communication technologies enable users to access, store, transmit, and manipulate information.

Integrated Knowledge Translation (iKT)

A form of Knowledge Translation (KT), in which stakeholders or potential research knowledge users are engaged in the entire research process. In integrated KT, researchers and research findings' users work together to shape the research process by collaborating to determine the research questions, deciding on the methodology, being involved in data collection and tools development, interpreting the findings, and helping disseminate the research results. This approach may also be referred to as collaborative research, action-oriented research, and co-production of knowledge. See the definition at the Canadian Institutes of Health Research (CIHR):

<http://www.cihr-irsc.gc.ca/e/39033.html#Two-Types-2>

Knowledge

Knowledge is possession of strong theoretical understanding of concepts related to the research process, with or without practice background.

Knowledge Translation (KT)

The exchange, synthesis and ethically-sound application of knowledge – within a complex system of interactions among researchers and users – to accelerate the capture of the benefits of research for Canadians through improved health, more effective services and products, and a strengthened healthcare system. See the definition at the Canadian Institutes of Health Research (CIHR):

<http://www.cihr-irsc.gc.ca/e/39033.html>

Methods

Method is a fixed, step-by-step, rigorous, logical and systematic approach/process of achieving certain goals/objectives in an ordered sequence of activities with accuracy and efficiency. to solve a problem that is pursued by: (1) Identifying and defining a problem/issue (goal of the study), (2) Formulating a tentative hypothesis, (3) Empirically testing the hypothesis, (4) Interpreting the results, and (5) Repeating the aforementioned steps, if necessary. Data analysis methods may be qualitative (see ***Qualitative Data Analysis***) or quantitative (See ***Quantitative Data Analysis***).

Methodology

A framework that guides the overall research process; a system or set of methods, principles, and rules used for regulating a particular discipline; it is the branch of philosophy concerned with and studied the underlying

principles and rules of the scientific inquiry procedure; in other words, methodology is the science of methods and procedures that does not describe specific methods.

Nursing Informatics

Use of information and computer technology to support all aspects of nursing practice.

Nursing Information System

Information system that supports the use and documentation of nursing processes and provides tools for managing the delivery of nursing care.

Project Wiki

A project website that allows collaborative editing of its content and structure by its users.

QL or Qualitative Data Analysis

Techniques and an ongoing iterative process, in which data are continuously collected, analyzed (almost simultaneously), and examined for patterns in observations. The researcher analyzes the collected data, explains, provides a form of understanding or interpretation of participants' situations and experiences on a topic under investigation. The form of the analysis is determined by the specific qualitative approach taken (e.g., field study, ethnography content analysis, oral history, biography, unobtrusive research) and the form of the data (e.g., field notes, documents, audiotape, videotape).

QN or Quantitative Data Analysis

Techniques and process of describing, presenting and interpreting numerical data that includes summary of the data (e.g., descriptive statistics) and inferences from a sample (generalizing) to a population (e.g., inferential statistics).

Research

A systematic investigation on a topic (using QN, or QL or Mixed-method methodologies) aimed at uncovering new information or knowledge (i.e., collecting data) and or interpreting relations among concepts, constructs or other parts (e.g., theorizing). Research is done in many ways such as searching among old court cases for legal precedents (e.g., lawyers), smashing atoms to study subatomic particles (physicists), or describing participants' experiences to better understand a phenomenon or the experiences of those lived it (nurses). Usually, research findings are generalizable or transferable to other contexts, but not in the QI research.

Research Competency

Sound specific theoretical knowledge, skills and attitudes related to evidence-based practice (including research utilization) and the research process.

Research Process

The ordered set of activities focused on the systematic collection of information using accepted methods of analysis as a basis for drawing conclusions and making recommendations.

Research Utilization (RU)

The process of synthesizing, disseminating and using research-generated knowledge to make an impact on or to change existing clinical practice. RU includes instrumental, conceptual and persuasive use of research findings. Instrumental (or direct) RU refers to the application of research findings to practice in making clinical decisions or specific interventions); Conceptual (or indirect) RU refers to changing the way of thinking in response to research findings, but not necessarily changing behaviour; and Persuasive (or symbolic) RU refers to the use of certain research findings to convince others.

Skills

The ability to carry out the research process with sufficient practical experience (e.g., I have read about it, understand it and can do it consistently to a satisfactory standard).

Statistical Literacy

The ability to understand statistics, which is necessary for individuals to understand material presented in publications (e.g., newspapers, television, the Internet, peer-reviewed journals, scientific papers). Statistically literate individuals generally have both the ability to appreciate the relevance of statistically-based approaches and critically evaluate statistical material. Numeracy is a prerequisite to being statistically literate.

Systematic Review

A literature review focused on a single question that tries to identify, appraise, select and synthesize all high quality research evidence relevant to that question. Systematic reviews of high-quality randomized controlled trials are crucial to evidence-based practice.