

Ride the Knowledge Wave 4 – #EIE2021

Building Implementation Practice Capacity

Presenters:

Presentation 1: *Dr Niamh O'Rourke (Health Information and Quality Authority), Dr Elaine Lehane (University College Cork), Dr Aisling Sheehan (Health Service Executive) – **Ireland***

Presentation 2: *Dr Laura Snyders & Dr. Sarah Kleijnen (National Health Care Institute), Dr Felix van Urk & Eva de Groot, MSc (Berenschot) – **Netherlands***

Presentation 3: *Johanna Fritz, Lena Almqvist, Anne Söderlund & Maria Sandborgh (Mälardalen University), Lars Wallin (Dalarna University) – **Sweden***

Presentation 4: *Dr Robert P. Franks, Dr Rachel Kim, & Dr Dan Cheron (Judge Baker Children's Center/Harvard Medical School) – **U.S.A.***

Presentation 5: *Hossai Gul, Dr Janet Long, Prof. Frances Rapport, Prof. Jeffrey Braithwaite (Australian Institute of Health Innovation, Faculty of Medicine & Health Sciences, Macquarie University) – **Australia***



Presentation 1: Adding capacity – Getting Implementation Science into the healthcare curriculum

Dr Niamh O'Rourke (Health Information and Quality Authority), Dr Elaine Lehane (University College Cork), Dr Aisling Sheehan (Health Service Executive) – **Ireland**

Background

Implementation of evidence into practice is a cornerstone of delivering clinically effective care. The Department of Health in Ireland, in partnership with the Centre for Effective Services (CES) and University College Cork (UCC), commenced a capacity-building project to increase adoption of evidence-based innovations. A key part of this project was the development of a competency framework for education in evidence-based practice and implementation science, to ensure responsiveness of education standards and curricula of healthcare professionals in this area.

Research Aim

Key aims of this implementation project were to

- Develop a competency framework for healthcare professionals
- Inform academic curricula and professional development programmes at third level
- Provide a guide for attainment of knowledge and skills for health service staff

Methods

The following steps were taken to develop the curriculum:

- Baseline research on the teaching of evidence-based practice and implementation science in Ireland, including a literature review, interviews with international experts and a national survey of third-level institutions
- Two national consultation events with regulators, researchers and educators
- Analysis of health regulator requirements for education and professional standards
- Documentary analysis of EBP and implementation science education; identification of relevant competencies, curriculum considerations, teaching & learning methods and assessment strategies
- Stakeholder consultation; 13 focus groups with representatives from the health services, clinical practice, third level education & professional training sectors, regulator/ accrediting bodies, and policy makers.

Key Findings

An overarching inter-disciplinary competency framework was proposed for clinical effectiveness education, which included the following domains: Implementation science; evidence-based practice; quality improvement processes; and professional practice.

Teaching methods recommended were based on an active learning approach and included: group-based projects; role-play/modelling; simulations and case-based studies that aid learners to apply and relate theory to real-world practice.

Policy makers in the Department of Health, health-service providers and the regulators of health professionals (medicine, nursing and allied health professionals) convened an implementation group to oversee dissemination and implementation.

Discussion

Should Implementation Science be included in the curriculum for all health professionals? What assessment strategies should be used to evaluate curriculum outcomes and effectiveness?

Presentation 2: Getting it and getting it done. Using the results of implementation research to improve core practices of health service organisations

Dr Laura Snyders & Dr. Sarah Kleijnen (National Health Care Institute), Dr Felix van Urk & Eva de Groot, MSc (Berenschot) – *Netherlands*

Background

The Dutch National Health Care Institute (NHCI) is an advisory and implementing organisation for two statutory health insurance schemes: The Health Insurance Act and the Long-Term Care Act. Institute activities focus on ensuring that citizens in the Netherlands receive adequate quality care – no more and no less care than necessary. An example of its activities is determining and advising on which types of health care should be included in the Dutch basic care insurance package – and which not. Such advice is produced in close collaboration with relevant stakeholders.

Research Aim

To advance our understanding of how collaborations between service provider agencies and implementation researchers can be organised to support sustainable continuous quality improvement efforts in health care organisations.

Methods

As part of NHCI's ongoing evaluation programme, independent evaluation consultants conducted a qualitative study of four recent NHCI exemplar cases. This implied to conduct 30+ interviews with key stakeholders involved in cases, followed by a qualitative synthesis of insights from 26 evaluations of NHCI core projects and activities. The Medical Research Council framework for process evaluations and the realist evaluation approach were used for data analysis and to structure interactions with staff. Professionals at all levels of the organisation were involved throughout the research process except (independent) data collection and analyses - research questions were developed together with staff, followed by joint interpretation of findings and articulation of recommendations for further improvement.

Key Findings

Common implementation frameworks helped to structure the input and thinking of involved health services professionals and to facilitate action towards further improvements at all levels of their organisation. Their consistent involvement throughout the implementation research process together with targeted communication about the essential concepts of implementation frameworks ensured that health professionals without a background in implementation research understood their meaning and value as part of improvement processes. Close collaboration with implementation scientists proved to be beneficial to this end.

Discussion

How can collaborations between health services organisations and implementation researchers best be organised? What are key mechanisms towards effective collaboration? How can implementation frameworks be used durably in health services organisations to support continuous quality improvement efforts?

Presentation 3: Crossing the border between efforts to change professionals' clinical behaviour and patients' benefits

Johanna Fritz, Lena Almqvist, Anne Söderlund & Maria Sandborgh (Mälardalen University), Lars Wallin (Dalarna University) – **Sweden**

Research Aim

To explore how active vs. passive implementation support of a behavioural medicine approach in physiotherapy influenced the health outcomes of patients with persistent musculoskeletal pain.

Methods

A total of 155 patients with persistent musculoskeletal pain were recruited by physiotherapists who had previously participated in a quasi-experimental controlled trial targeting the physiotherapists' implementation of a behavioural medicine approach. Data concerning pain-related disability in performing activities in daily life, pain intensity, and self-rated health were collected using valid and reliable questionnaires before and after the physiotherapy treatment and at the six-, twelve- and twenty-four-month follow-ups. Descriptive, non-parametric and parametric, bi- and multivariate analyses were used.

Key Findings

There were no differences over time between the patients treated by the physiotherapists who received active vs. passive implementation support, regarding pain-related disability ($p=0.53$), pain intensity ($p=0.29$) or self-rated health ($p=0.23$). Significant improvements over time were identified in both groups ($p<0.01-0.03$) and the effect sizes were large.

It seems like the active efforts to support the implementation of a behavioural medicine approach in physiotherapy did not contribute to further benefits than those obtained with passive implementation support.

Discussion

Why were there no differences regarding health benefits between the patients treated by the physiotherapists who received active vs. passive implementation support? Why is it not enough to evaluate the professionals' clinical behaviour change in implementation research?

Presentation 4: Does Structured Implementation Support Make a Difference? A Tale of Two Strategies

Dr Robert P. Franks, Dr Rachel Kim, & Dr Dan Cheron (Judge Baker Children's Center/Harvard Medical School) – U.S.A.

Research Aim

To determine if enhanced implementation support makes a positive difference in a large-scale evidence-based practice (EBP) implementation initiative across diverse settings.

Methods

Two implementation strategies used across multiple organizations in diverse settings were compared: (1) a traditional training and coaching methodology with minimal implementation supports, and (2) a training and coaching methodology embedded in a structured learning collaboration with enhanced implementation supports. Both strategies were utilised to support the implementation of the research-supported Modular Approach to Treatment for Children (MATCH) intervention. The enhanced Learning Collaborative used a range of structured implementation tools and strategies including readiness assessment, tailored implementation plans and consultation, continuous quality improvement (such as Plan-Do-Study-Act cycles), team building and affinity groups, group problem solving, among other strategies.

A case study comparison was conducted. To determine the impact of two different levels of implementation support on EBP installation and sustainability, implementation metric and outcome data, client level outcomes, and qualitative reports were compared.

Key Findings

Both implementation approaches appeared to result in positive outcomes for clients receiving the EBP. However, using a structured implementation approach, the enhanced Learning Collaborative, yielded improvements over a more traditional training and coaching implementation model in several key areas including:

- 1) Increased data collection, analysis and application, using a monitoring and feedback system
- 2) Increased enrolment of clients
- 3) Increased number of sessions using the EBP
- 4) Decreases in clinician attrition
- 5) Anecdotal reports of increased clinician satisfaction, team building and organizational effectiveness.

Discussion

Why appear Learning Collaboratives to have broader, generalizable benefits to agencies? How can Learning Collaboratives be used at scale?

Presentation 5: Closing the gap between research and practice: A Systems-based Participatory Action Implementation Research (SPAIR) approach for combining implementation research with implementation practice to translate evidence-based interventions into routine care

Hossai Gul, Dr Janet Long, Prof. Frances Rapport, Prof. Jeffrey Braithwaite
(Australian Institute of Health Innovation, Faculty of Medicine & Health Sciences, Macquarie University) – **Australia**

Research Aim

To develop and test an overarching framework for undertaking implementation research in parallel to implementation practice in order to understand change in complex adaptive healthcare systems.

Methods

This project was structured into five phases:

- **Phase 1:** Search of the literature to understand how researchers outside of healthcare were approaching 'hairy' complex problems such as poverty, domestic violence, AIDS prevention etc. The methodology and epistemology of the approaches were noted.
- **Phase 2:** Combined the approaches found in phase 1 with implementation science models, frameworks, and theories and assessed the fit and epistemological grounding.
- **Phase 3:** Developed a framework for undertaking implementation research in parallel to implementation practice in order to understand change in complex adaptive systems.
- **Phase 4:** Consulted with 15 disciplinary-diverse, senior public health and implementation science researchers for feedback.
- **Phase 5:** Deployed the newly developed framework across three projects focused on the implementation of genetic and genomic interventions

Key Findings

Healthcare is a complex adaptive system. It has multiple moving parts, multiple semi-autonomous agents, and dynamic boundaries. Research in healthcare should be performed from a systems science point of view. This means linear cause-and-affect cannot be ascertained but rather a holistic picture should be formed by bringing parts of the systems together. To best understand change (such as implementation), within complex adaptive systems like healthcare, it is best to be actively involved in that change to gain a deep understanding of 'work as done' (WAD) as opposed to as 'work as imagined' (WAI). Conducting research in parallel to active involvement in change is the foundation of Participatory Action Research (PAR) and closes the gap between WAD and WAI. PAR is a central element of Systems-based Participatory Action Implementation Research (SPAIR), a novel framework that also includes systems science, and implementation science models, frameworks, and theories.

Discussion

How to collect data when involved in both implementation research and practice? What are the differences? How to account for biases when combining implementation research and practice?