

Tufts Clinical and Translational Science Institute

Evidence Synthesis Examples of Evidence Synthesis

The following are examples of evidence synthesis in several studies.

Engaging Patients in Systematic Review: Patient Perspectives in Health Technology Assessments (HTA)

To explore strategies for involving patients in HTA at local hospitals, three objectives were pursued:

- 1) To synthesize international knowledge and experiences on patient and public involvement in HTA activities
- 2) To explore the perceptions of stakeholders (administrators, clinical managers, healthcare professionals, HTA producers, and patients) regarding strategies for involving patients in various HTA activities
- 3) To produce a consensual strategic framework to guide interventions for involving patients in HTA activities at the local level.

These aims were achieved through a systematic review of the literature to synthesize international knowledge and experiments regarding the implication of patients and public in HTA; focus groups with various stakeholders to explore patient perceptions about participating in HTA; and the development of a framework to support patient participation in HTA activities.

Engaging Experts for Topic Identification and Future Research Needs Prioritization: Developing a Research Strategy to Make Informed Decisions for Intervention Selection

This study aimed to develop a research strategy to make informed decisions for intervention selection, especially for low- and middle-income countries, as a response to the urgent need to scale-up mental health care for children globally. The research team addressed the critical lack of translation of research findings into policy and practice. The research strategy was piloted for development of a family-based intervention in violence-affected areas in Burundi.

There were four research phases:

- 1) A qualitative phase to assess needs and determine tentative intervention objectives
- 2) A global expert panel phase to identify and prioritize intervention modalities for low-resource settings
- 3) Systematic literature review and distillation of practice elements from evidence-based treatments
- 4) Stakeholder meetings to explore social-cultural feasibility and acceptability of the developed intervention.

The research strategy resulted in the development of a stepped family-based care intervention, which combines community mobilization, parent-management training and cognitive behavior therapy elements. This pilot-tested research strategy, encompassing global and local knowledge on needs, feasibility and effectiveness, has the potential to be useful for developing mental health and psychosocial interventions in other settings.

Implementation: Offering Language Choice to Patients to Improve Health Care

A paper reports on a scoping study of bilingual provision in nurse education in Wales, UK, to inform the evidence base for national strategic planning.

The study incorporated three elements:

- 1) Literature analysis
- 2) Policy review
- 3) Stakeholder consultation (n=70).

The study determined that strategic planning for bilingual provision in nurse education in Wales should account for the factors that affect provision at different levels. These factors feature across bilingual settings outside the UK, thus giving the study international relevance and scope to inform the delivery of nurse education that meets the needs of wider diverse language communities.



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Topic Refinement: Preparing for an Influenza Pandemic or Mass Disaster The purpose of this study was to provide recommendations and standard operating procedures (SOPs) for intensive care unit (ICU) and hospital preparations for an influenza pandemic or mass disaster with a specific focus on enhancing coordination and collaboration between the ICU and other key stakeholders.

Based on a literature review and expert opinion, a Delphi process was used to define the essential topics including coordination and collaboration. Key recommendations included:

- 1) Establish an Incident Management System with Emergency Executive Control Groups at facility, local, regional/state or national levels to exercise authority and direction over resource use and communications
- 2) Develop a system of communication, coordination and collaboration between the ICU and key interface departments within the hospital
- 3) Identify key functions or processes requiring coordination and collaboration, the most important of these being manpower and resources utilization (surge capacity) and re-allocation of personnel, equipment and physical space
- 4) Develop processes to allow smooth inter-departmental patient transfers
- 5) Creating systems and guidelines is not sufficient, it is important to:
 - a) Identify the roles and responsibilities of key individuals necessary for the implementation of the guidelines
 - b) Ensure these individuals are adequately trained and prepared to perform their roles
 - c) Ensure adequate equipment to allow key coordination and collaboration activities
 - d) Ensure an adequate physical environment to allow staff to properly implement guideline
- 6) Trigger events for determining a crisis should be defined.

The study concluded that judicious planning and adoption of protocols for coordination and collaboration with interface units are necessary to optimize outcomes during a pandemic.

Translation of Research into Policy: Developing Quality Indicators for the Care of Persons with Multiple Schlerosis (MS)

Determining whether persons with MS receive appropriate, comprehensive healthcare requires tools for measuring quality. This study used a modified version of the RAND/UCLA Appropriateness Method in a two-stage process to identify relevant MS care domains and to assess the validity of indicators within high-ranking care domains.

Based on a literature review, interviews with persons with MS, and discussions with MS providers, 25 MS symptom domains and 14 general health domains of MS care were identified. A multidisciplinary panel of 15 stakeholders of MS care, including four persons with MS, rated these 39 domains in a two-round modified Delphi process. The research team performed an expanded literature review for 26 highly-ranked domains to draft 86 MS care indicators. Through another two-round modified Delphi process, a second panel of 18 stakeholders rated these indicators using a nine-point response scale. Indicators with a median rating in the highest tertile were considered valid. Among the most highly rated MS care domains were appropriateness and timeliness of the diagnostic work-up, bladder dysfunction, cognition dysfunction, depression, disease-modifying agent usage, fatigue, integration of care, and spasticity. Of the 86 preliminary indicators, 76 were rated highly enough to meet predetermined thresholds for validity.

Following a widely accepted methodology, the research team developed a comprehensive set of quality indicators for MS care that can be used to assess quality of care and guide the design of interventions to improve care among persons with MS.