

61 OBTAINING AND TRANSFERRING ADEQUATE EVIDENCE FOR INTEGRATED CARELiset Grooten. *Vrije Universiteit Brussel, Brussel, Belgium*

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Obtaining and transferring adequate evidence for integrated care. **Problem:** In many countries health and social care are too often fragmented and subsequently result in deficiencies in service delivery, causing low responsiveness of the health system, low satisfaction of patients with health services, low job-satisfaction, suboptimal health outcomes, and inefficient use of resources. Integrated care initiatives are being developed around the world to drive forward transformation of health systems to achieve accessible, quality, effective and sustainable health care. However, despite attempts by the Evidence-based medicine movement to emphasize the importance of using evidence to inform healthcare practice, the quality of research providing evidence supporting integrated care initiatives remains unsatisfactorily. This is partly caused by the use of traditional evaluation efforts that focus on outcomes and illustrate an oversimplification of the environment and the complex initiatives. The linkage between changes in services and service outcomes is problematic because most patient or service user outcomes do not emerge from linear cause and effect chains. Current methods and measures of quality in health care provide limited information about the effectiveness of complex interventions within uncontrolled, context-rich settings, and do not clarify the underlying mechanisms governing the components of integrated care. **Objective:** To achieve a successful transformation towards more integrated care systems, adequate insights are needed into what factors contribute to the progress and success of integrated care initiatives. **Possible solution:** What is needed are multi-method approaches to evaluation, such as realist research (RR), which captures the complexity of integrated care as reflected in its multiple components and dynamic nature with a view to understanding what works, for whom, and under what conditions. Since the use of comprehensive evaluation approaches, such as RR, is relatively new to scientist in the field of integrated care, it is important to raise awareness on the shortcomings of current evaluation approaches and the need for new comprehensive evaluation approaches. Not only among scientists, but also among doctors, policymakers, and the public. Next to obtaining adequate evidence on integrated care initiatives, it is important to transfer the findings to a wider audience to achieve a wide scale change in health systems. In order not to make the same mistake by having a too narrow perspective on the process of knowledge transfer, as is currently the case, it is important to regard the transfer process as a complex process of interaction and collaboration. Understanding context and the diverse types of knowledge have been observed to be more and more important in affecting behaviour change. Furthermore, evaluation of these complex knowledge translation interventions must be part of the knowledge transfer process, to collect lessons to understand what works, for whom, and under what conditions.

62 THE ROLE OF THE RESEARCH ADVISORY COUNCIL (RAC) IN BRIDGING THE EVIDENCE-TO-POLICY GAP IN MATERNAL AND CHILD HEALTH IN ETHIOPIA

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Objectives To report on the experiences and challenges of the Research Advisory Council (RAC) of the Maternal and Child Health Directorate (MCHD) at the Federal Ministry of Health, Ethiopia.

Method Review of products (e.g. policy briefs, technical reports, systematic reviews), meeting minutes and terms of reference of the RAC was supplemented with interview of key persons in the establishment and operation of the advisory council.

Results The RAC is composed of university researchers, partner organizations and staff from the Directorate. We found that the RAC regularly (4-6 times per year) meets to consider policy relevant questions from the MCHD. The maternal thematic group of the RAC produced a technical report based on a systematic review which the group conducted. This report was used by the MCHD to make the decision of including uterine balloon tamponade (UBT) and Non-pneumatic anti-shock garment (NASG) in the guideline for the management of PPH. The child health thematic group led an implementation research (IR) to test the feasibility and acceptability of treatment of young infants with possible serious bacterial infection (PBI) by community health workers. This led to the inclusion of this approach in the national guideline for management of sick infants. Its voluntary nature and dependence on external funding were the key challenges.

Conclusions The RAC has proved to be instrumental in bridging the disconnect between those who produce evidence and those expected to use it. Planned efforts to integrate the operation and funding of the RAC in the regular annual plan of the Directorate is recommended.

63 ZDSEARCH: FACILITATING REPRODUCIBLE AND VALID SEARCHING IN EVIDENCE SYNTHESIS

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Objectives Search is the first stage in evidence synthesis, and the use of a valid and reproducible search strategy forms the foundation of the systematic review process. However, the key steps of developing, validating, visualising, saving, sharing, peer-reviewing, and translating search strategies (to the syntax of other interfaces) are often fragmented across a variety of unconnected, non-interoperable platforms. We present an open-access platform that offers a unified approach to structured searching which promotes replicable methods and reproducible results.

Method 2dSearch is a radical alternative to conventional line-by-line query builders. Instead of entering Boolean strings into one-dimensional search boxes, queries are formulated by manipulating objects on a two-dimensional canvas. Query suggestions are provided via an NLP services API, and support is offered for optimising and translating search strategies for different databases. Moreover, strategies can be saved, shared and reviewed as executable artefacts. This approach eliminates many sources of error, makes the query semantics more transparent, and offers an open-access platform for sharing reproducible search templates and best practices.

Results 2dSearch currently supports over 300 registered users (and many more unregistered) in providing an open-access, integrated development environment specifically optimised for search strategy development. It includes:

- A visual framework which eliminates many errors associated with traditional command-line query formulation tools;
- Search results that update in real-time, and individual blocks with hit counts that can be enabled/disabled on demand;
- Queries that are analysed and validated, with common errors (e.g. duplication, orphaned lines, redundant bracketing) detected and corrections offered;
- Platform-agnostic representation and support for multiple databases which mitigates inefficient 'translation' of search strategies across databases;
- Interactive query suggestions that avoid the problems of phrase boundary detection and 'query drift' that undermine traditional query expansion techniques;
- Outputs that may be shared as executable artefacts or exported as traditional Boolean strings.

Conclusions Complying with seven recommended strategies to enhance the reproducibility in scientific research, this platform supports pre-registration of searches, open search strategies (methods), open search results (data), collaboration in review team in search step, automation of validation and translation of search syntax, compatibility with reporting guidelines, and finally pre- and post-publication peer-review.

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THE FACT THAT 'THE SCANDAL OF POOR MEDICAL RESEARCH' BY DOUGLAS ALTMAN (1994) LARGELY HOLDS TRUE TODAY INSINUATES THE PERSISTENT CONDUCT AND DISSEMINATION OF POOR-QUALITY RESEARCH. HOWEVER, FUTURE DIRECTIONS PRESENTED IN THE EBM MANIFESTO PROVIDE SOME ASSURANCE THAT RESEARCH QUALITY IN EVIDENCE-BASED MEDICINE CAN BE SALVAGED

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The objective of this submission is to describe four additional suggestions to alleviate issues around the quality of research and publications. Currently, positive results are twice as likely to be published as negative results. Advocating the publication of negative findings too would beseech individuals to report true findings and be less tempted to fabricate data. Moreover, negative findings help expedite the process of uncovering positive results and is supported by 'Missing pieces' by PLOS ONE and the journal 'Negative results'. However, their negligible impact factor and low profile may dissuade researchers

from exhibiting their work here. It can be challenging for new journals to compete with gold standards like Nature, NEJM or the BMJ. To tackle this, introducing a subset journal under well-known 'brands' eg. 'Nature/BMJ Negatives' could help attract contributions from researchers. Additionally, the regular updating of reviews calls for more living documents. Universities could collate the appropriate manpower and educational bodies, the necessary funding, to develop field specific documents under open access peer review journals such as the 'Living Journal of Computational Molecular Science.' Living documents help prevent duplication of research, allow for consistent presentation of data and the chronological depiction of findings allows comparisons to be made and trends to be detected as the topic evolves. Many healthcare professionals (HCPs) are not formally trained to conduct research resulting in them addressing questions with low statistical significance or engaging in ghost authorship to climb the career ladder. As such, there is a need to raise the requirements for HCPs who wish to do research (by completing mandatory research training courses) or ensure they are adequately supervised (eg. through collaboration with a career researcher). The feasibility of this suggestion is reiterated by the advent of digital technology which allows HCP's education to seamlessly integrate into their hectic schedules as e-resources can be accessed remotely and at their own convenience. Finally, a reduction in research output is necessary to alleviate the '75 trials and 11 systematic reviews a day' predicament. A revamp of the 'quantity over quality' mind-set is necessary. Researchers should be encouraged to broaden their scope of work beyond publication numbers and impact factors towards conference presentations, teaching, mentoring, contributing to scientific communications etc. These various components contribute towards a rewarding career, unlike a chase for an admirable h-index. To conclude, this proposal targets issues listed in the EBM manifesto. Promoting transparency in research helps reduce questionable research practices. Initiating more living documents elevates the worth of existing evidence through systematic representation of a topic. Furthering HCP education enables them to expand their roles in research. And finally, encouraging a reduction in research output results in evidence being more 'relevant, replicable, and accessible to end users.'

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SCIENCE REBOOT. CREATION OF AN EVIDENCE-BASED LITERATURE BY INCREASING THE USE OF REGIONAL LANGUAGES IN SCIENCE

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Objectives English as an International Language is widely used in science. Unfortunately, scientific information space is oversaturated by using International Language, while Regional Languages remain informatively poor. The oversaturation leads to the information overload¹⁻⁴, reducing the quality of information and data interpretation. At the same time, non-English speaking countries publish new studies in regional journals, causing contrary effect – information deficiency in English.⁵

Similarly to RCSB PDB and NCBI, the authors suggest to create a novel scientific database in order to: - Enrich the regional languages allowing them to be competitive; - Concentrate on the evidence-based and up-to-date information in