

City Research Online

City, University of London Institutional Repository

Citation: Balayah, Z., Stavropoulou, C., Chen, Y., Scarbrough, H., Nigam, A. & Ziemann, A. (2021). (Re-)conceptualising implementation depth of healthcare innovations - A systematic review and concept analysis. Implementation Science, 16, doi: 10.1186/s13012-021-01163-7 ISSN 1748-5908 doi: 10.1186/s13012-021-01163-7

This is the published version of the paper.

This version of the publication may differ from the final published version.

Permanent repository link: https://openaccess.city.ac.uk/id/eprint/27777/

Link to published version: https://doi.org/10.1186/s13012-021-01163-7

Copyright: City Research Online aims to make research outputs of City, University of London available to a wider audience. Copyright and Moral Rights remain with the author(s) and/or copyright holders. URLs from City Research Online may be freely distributed and linked to.

Reuse: Copies of full items can be used for personal research or study, educational, or not-for-profit purposes without prior permission or charge. Provided that the authors, title and full bibliographic details are credited, a hyperlink and/or URL is given for the original metadata page and the content is not changed in any way.

City Research Online: http://openaccess.city.ac.uk/ publications@city.ac.uk/

Background

The importance of using theories, frameworks and models in implementation research and practice is widely recognised. The Reach Effectiveness Adoption Implementation and Maintenance (RE-AIM) framework is one of the most highly used implementation frameworks. We report a systematic review that provides (a) an updated synthesis of RE-AIM use over time (update of review by Gaglio et al, 2013)^[1], (b) explores the pragmatic use of RE-AIM, in a sub-set of articles meeting inclusion criteria, and (c) provides an in-depth exploration of the reasoning and justification for full and pragmatic use of RE-AIM, in a sub-set of articles meeting inclusion criteria.

Method

We searched MEDLINE (R) and PsycINFO, via the Ovid interface, between January 2011 and December 2017. The search term 'RE-AIM' was used to search for relevant articles. Studies that applied RE-AIM as a planning and/or evaluation framework were eligible for inclusion.

Results

157 met inclusion criteria, of which 149 reported using RE-AIM as an evaluation framework, 3 as a planning framework and 5 as a planning and evaluation framework. Reach was the most frequently reported RE-AIM dimension followed by adoption, implementation, effectiveness and maintenance. Fifty articles applied RE-AIM pragmatically (i.e., not in its entirety). Within the sub-set analysis (approximately 10% of articles meeting inclusion criteria), 9/15 articles evaluated all RE-AIM dimensions, therefore justifying the rationale for not evaluating RE-AIM dimensions was not applicable. Of the 6/15 articles that did not evaluate one or more RE-AIM dimensions, 5 articles did not justify the rationale for not evaluating RE-AIM dimensions.

Conclusion

RE-AIM has gained increased use in recent years and there is evidence that it is being applied pragmatically. However, the rationale for its pragmatic use is often not reported, making it impossible to rule out that key aspects of the framework have not simply been overlooked.

Trial Registration:

Non applicable

Consent to publish

Yes

Reference

Gaglio B, Shoup JA, Glasgow RE. The RE-AIM framework: a systematic review of use over time. Am J Public Health. 2013;103(6):e38-46.

020

(Re-)conceptualising implementation depth of healthcare innovations – A systematic review and concept analysis

Zuhur Balayah¹, Charitini Stavropoulou², Yaru Chen³, Harry Scarbrough¹, Amit Nigam¹, Alexandra Ziemann³

¹The Business School, Centre for Healthcare Innovation Research (CHIR), City, University of London, EC1V 0HB, UK; ²School of Health Sciences, Centre for Healthcare Innovation Research (CHIR), City, University of London, EC1V 0HB, UK; ³Centre for Healthcare Innovation Research (CHIR), City, University of London, EC1V 0HB, UK

Correspondence: Zuhur Balayah (zuhur.balayah@cass.city.ac.uk) Implementation Science 2021, 16(Suppl 2):020

Background

Implementation depth, the extent to which innovations are implemented successfully, is a matter of great interest in healthcare practice. Yet, the way implementation depth is conceptualised varies between different studies, settings and contexts. The aim of this study is to report on the clarification and re-conceptualisation of implementation depth in healthcare, by synthesising the theoretic scientific literature from multiple disciplinary backgrounds.

Method

We applied a pragmatic utility concept analysis approach, a metaanalytic and interpretative method aiming at providing new insights of partially mature concepts using literature as data source. We followed the BeHEMoTh (Behaviour or phenomenon of interest, Health context, Exclusions, Models and Theories) approach for systematically searching for and identifying a comprehensive compilation of concepts from the scientific literature. The following databases were searched: Medline, Embase, CINAHL, Psychlnfo, Global Health, HMIC, Business Source Complete, and Social Policy and Practice. In addition to handsearching references of selected publications, key textbooks and citation tracking. First order-concepts' definitions, characteristics/attributes and boundaries/allied concepts were extracted and analysed to derive second-order concepts of implementation depth.

Results

We identified 66 publications that met our eligibility criteria. The preliminary results reveal the consolidated conceptualisation of implementation depth encompasses five concepts: low implementation depth (abandonment), high implementation depth (assimilation), normalising and sustaining innovation over time (sustainability), removal/reduction or substitution of an existing practice (deimplementation), and progression of implementation stages (stickiness of implementation stages). The second-order concepts of implementation depth clarify a unified structure to conceptualise the dynamic successes and/or failures of implementation efforts.

Conclusion

The consolidated framework of implementation depth delineates the type of implementation 'success'. It offers a useful heuristic for operationalising shallow to deep implementation, that may be better suited for understanding challenges with sustaining, scaling and spreading healthcare innovations.

02

Self-monitoring of blood pressure (SMBP) in pregnancy: a national roll-out in the context of a pandemic

Hannah Wilson¹, Katherine Tucker², Layla Lavallee², Lisa Hinton³, Richard J McManus², Lucy C Chappell¹

¹School of Life Course Sciences, King's College London, London, UK; ²Nuffield Department of Primary Care Health Sciences, University of Oxford, Oxford, UK; ³The Healthcare Improvement Studies Institute, University of Cambridge, Cambridge, UK

Correspondence: Hannah Wilson (Hannah.1.Wilson@kcl.ac.uk) Implementation Science 2021, 16(Suppl 2):021

Background

In April 2020, the Royal College of Obstetricians and Gynaecologists (RCOG) published guidance on establishing services so women with pregnancy hypertension could have additional remote monitoring during the COVID-19 pandemic [1]. To support implementation, NHS England distributed over 16,000 blood pressure (BP) monitors free of charge to maternity providers on request.

Method

The evaluation included the following:

- 1. Survey of 127 maternity providers in England about their implementation of SMBP
- Survey of 166 women who were currently pregnant or who had had a baby since March 2020 regarding their experiences with SMBP

Results

Of 127 providers contacted, 35% responded, of whom most (78%) did not regularly provide BP monitors to pregnant women prior to the COVID-19 pandemic. SMBP was most commonly offered to women who had developed gestational hypertension (89%) and used for additional monitoring (93%) rather than as a replacement for a routine face-to-face contact. Almost all (98%) providers provided written information to women alongside the BP monitor, as provided in the RCOG COVID-19 SMBP guidance. Overall providers were positive about the ability of SMBP to reduce face-to-face contacts (80%). Providers aimed to recycle monitors for multiple women but return rates averaged around 40%. Monitoring was largely