RtKW 7: Learning from Implementation Trials

When the skins speak: A hybrid type III approach to address self-harm behaviours in correctional settings

Rosa Lorente Català[1], Azucena García Palacios[1]

Stagewise Implementation to Target: Clinic participation, fidelity, and costs within two resource implementation strategies in an adaptive implementation trial to improve access to MOUD

Jay Ford[1], Michele Gassman[1], Mark Campbell[2], Lisa Saldana[2]

An implementation science-informed process evaluation for a multi-disciplinary intervention for childhood brain cancer survivors

Joseph Elias[1,2], Skye McKay[1], Carolyn Mazariego[1], Jordana McLoone[2,3], Christina Signorelli[2,3], Claire E. Wakefield[2,3], Richard J. Cohn[2,3], Shuang Liang[1], Elijah Tyedmers[1], Natalie Taylor[1]

Optimising the Implementation of Digital Health Applications: Insights from Healthcare Professional Engagement and Strategy Evaluation in Germany

Anne Etzelmueller[1]

RtKW 143

When the skins speak: A hybrid type III approach to address self-harm behaviours in correctional settings

Rosa Lorente Català[1], *Azucena García Palacios*[1]

[1]*Universitat Jaume I, Castellón de la Plana, Spain*

Research aim
This study aims to explore the factors influencing the implementation of the Systems Training for Emotional Predictability and Problem Solving (STEPPS) program to address self-harm behaviours within correctional settings. Additionally, it examines inmate profiles across Catalonia, Spain, and evaluates the program's effectiveness and the key determinants of its implementation.

Setting
The study was conducted in correctional settings across Catalonia, Spain, a region with executive authority over the management and organisation of its penitentiary centres. It included all closed centres in Catalonia (N=10) except for one.

Method(s)
A hybrid implementation-effectiveness type III study using mixed methods was conducted. Eight focus group discussions were held with professionals involved in implementing the program to identify barriers and facilitators. These discussions were guided by the Consolidated Framework for Implementation Research (CFIR) and employed the Consensual Qualitative Research (CQR) methodology. A quantitative assessment based on the CFIR questionnaire was conducted to complement the qualitative findings. Professionals also completed measures evaluating satisfaction, normalisation processes, burnout, acceptability, appropriateness, and feasibility. Inmates completed measures addressing self-harm behaviours, emotion regulation, impulsivity, mental health symptoms, and their satisfaction with the intervention.

Key finding(s)
A total of 41 inmates participated in the study, with self-cutting as the most common form of self-injury, typically impulsive, isolated, and without pain. The main function was affect regulation, with most inmates wanting to stop. Participants showed significant reductions in emotional dysregulation, impulsivity, and obsessive-compulsive symptoms, alongside high satisfaction levels. The program was implemented by 24 professionals, who rated its appropriateness, acceptability, feasibility, and satisfaction highly. Facilitators included supervision, evidence for the intervention, and its alignment with inmates' needs. Barriers included mobility between modules, scheduling conflicts, and punitive isolation, which must be addressed for future success.

Discussion
After conducting this study, many questions arise, including: How can we include public officials in the implementation process? What designs should we use to evaluate the sustainability of the intervention with limited resources?

Challenges
One of the main challenges was adapting the STEPPS program to the specific context and characteristics of the sample. This was addressed by incorporating bi-weekly online supervision sessions to ensure proper support and alignment with the unique needs of the participants.

RtKW 173

Stagewise Implementation to Target: Clinic participation, fidelity, and costs within two resource implementation strategies in an adaptive implementation trial to improve access to MOUD

Jay Ford[1], Michele Gassman[1], Mark Campbell[2], Lisa Saldana[2]

[1]University of Wisconsin-Madison School of Pharmacy, Madison, USA
[2]Lighthouse Institute - Chestnut Health System, Eugene, USA

Research aim
Implementation studies assess effectiveness of implementation strategies without considering participant competency in using the implementation strategies and their associated implementation costs. The Stages of Implementation Completion® (SIC) and Cost of Implementing New Strategies (COINS) were adapted to assess competency and implementation costs across implementation strategies within an adaptive implementation trial.

Setting
Sixty-nine specialty addiction and primary care clinics participated in the Stagewise Implementation-to-Target Medications for Addiction Treatment (SITT-MAT) initiative. SITT-MAT uses a measurement-based approach to identify which sequence of strategies – Audit and Feedback (A&F), Two-day Workshop (Academy), Internal Facilitation, and External Facilitation most effectively improve RE-AIM mapped clinic-level outcomes.

Method(s)
An iterative approach modified and adapted the SIC and COINS for SITT-MAT. The SIC tracks implementation strategy activities, produces proportion and duration scores, and provides norms and benchmarks from other implementing programs that reach competency. The COINS associates staff time and costs to determine costs of organisational implementation efforts within the SIC. Competency was based on a clinic reaching target on the three outcomes (No, Partial, or Full) within each implementation strategy. The analysis explored proportion and duration scores for the Pre-Implementation and Implementation phases and costs for the first two SITT-MAT strategies – A&F and Academy - overall and by clinic type.

Key finding(s)
Data were entered from A&F (n = 69) and Academy (n = 57) clinics. Only the A&F implementation strategy facilitated clinics reaching competency. Primary care clinics were faster during the implementation phase and more often able to achieve competency (260 days, 14.3% competency) than specialty care (381 days, 3.6% competency). Average implementation cost for clinics reaching Stage 6 or above differed significantly between the Academy ($1,022.45) and A&F ($1,391.16) strategy (p = 0.0145). Primary care clinic costs differed substantially between the A&F ($1,600) versus Academy ($961) strategies (p = 0.0044) but not for specialty care clinics.

Discussion
- What are the key messages for funders and policymakers related to findings from the SIC and COINS within a measurement-based stepped implementation approach to identify the most effective and efficient implementation strategies to improve study outcomes?
- What reasons might be present to explain why the implementation strategy cost differences are less in the Academy implementation strategy and why the difference is being driven by primary care versus specialty care clinics, given that both clinics were exposed to the same set of implementation strategies?

Challenges
Challenges included how to: identify and define key activities across implementation strategies to create a common SIC and COINS metrics across conditions; develop a system to assess each activity and cost component prospectively; and track activity completion or non-completion including staff (who) and time-associated staff activity engagement.

RtKW 178

An implementation science-informed process evaluation for a multi-disciplinary intervention for childhood brain cancer survivors

Joseph Elias[1,2], Skye McKay[1], Carolyn Mazariego[1], Jordana McLoone[2,3], Christina Signorelli[2,3], Claire E. Wakefield[2,3], Richard J. Cohn[2,3], Shuang Liang[1], Elijah Tyedmers[1], Natalie Taylor[1]

[1]Implementation to Impact (i2i), School of Population Health, UNSW, Sydney, Australia.
[2]Kids Cancer Centre, Sydney Children's Hospital, Randwick, Australia
[3]Discipline of Paediatrics & Child Health, School of Clinical Medicine, UNSW Medicine & Health, Sydney, Australia

Research aim
'Engage' is a multidisciplinary intervention designed to improve quality of life for childhood brain cancer survivors and has been evaluated in a multi-site type-1 implementation-effectiveness trial. We conducted a mixed-methods process evaluation of Engage to identify factors influencing its sustainability and scalability.

Setting
The findings from our process evaluation apply to paediatric oncology and long-term survivorship services at multiple levels within our healthcare system, including oncology wards, outpatient clinics, and primary care settings.

Method(s)
Data collection for the Engage program spans four key implementation domains: (1) Planning – leveraging program and implementation logic models to identify critical implementation factors and refine intervention components, (2) Implementation – evaluating implementation quality through Proctor outcomes, (3) Practice setting – examining contextual factors influencing implementation between trial sites and within primary care, and (4) Ecological setting – exploring requirements for scale-up. Data sources include semi-structured interviews with clinical stakeholders and primary care practitioners (PCPs), implementation meeting notes and project logs, transcribed nurse consultations, study materials (e.g., protocol and nurse manual), and administrative/process data.

Key finding(s)
In Domain 1 (Planning), barriers/facilitators to existing survivorship practices across trial sites included the importance of engaging PCPs (CFIR: partnerships and connections), and challenges transitioning patients from acute to survivorship care (TDF: environmental context and resources). In Domain 2 (Implementation), Engage was reported as acceptable and appropriate, though sites varied in anticipated feasibility and sustainability. In Domain 3 (Practice setting), factors influencing Engage implementation included obtaining referrals (CFIR: communications), scheduling multi-disciplinary meetings (CFIR: work-infrastructure) and PCPs preferences for care plans (CFIR: design). In Domain 4 (Ecological setting), scale-up would require demonstrating improved long-term health outcomes, service efficiency and cost-effectiveness.

Discussion
- How can implementation learnings yielded during trial delivery be applied in real-time?
- How can process evaluation findings be generalised to inform the evaluation and scale-up of other complex interventions?

Challenges
Engage is a multi-component intervention integrated into an existing model of care. This integration complicates distinguishing the factors affecting the success of the intervention unique to Engage, its multi-site trial implementation, and the broader delivery of survivorship care. Program and implementation logic models helped disentangle these complexities during our evaluation.

RtKW 298

Optimising the Implementation of Digital Health Applications: Insights from Healthcare Professional Engagement and Strategy Evaluation in Germany

Anne Etzelmueller[1]

[1]*Technical University Munich, Munich, Germany*

Research aim
This study explores the implementation of Digital Health Applications (DiGAs) in Germany through two complementary projects. The first investigates healthcare professionals' (HCPs) perceptions of DiGAs, while the second evaluates ways to assess the effectiveness of implementation strategies to optimise the adoption of DIGA into routine care.

Setting
The projects focus on DiGAs in Germany, integrated into the healthcare system via the Digital Care Act. These applications can be prescribed by HCPs and have shown medical benefits in randomised controlled trials. As such, they provide a critical step in embedding digital innovations within routine clinical practice.

Method(s)
The first project employs a mixed-method design, combining surveys and semi-structured interviews with healthcare professionals to understand attitudes, barriers, and facilitators for DiGA adoption. The second project uses the Multiphase Optimization Strategy (MOST) framework and a factorial design to assess the effectiveness of implementation strategies within a proof-of-concept study. We retrospectively analysed calls, online meetings, and onsite engagements with the goal of increasing DiGA activations among HCPs.

Key finding(s)
Barriers to DiGA adoption include limited awareness, scepticism among clinicians, and a lack of training, while facilitators include hands-on support, multi-modal engagement strategies, and policy frameworks. The exploratory findings of the second project highlight the effectiveness of the MOST framework in revealing meaningful differences in activation rates across the groups. We found that combining onsite meetings and calls significantly increased DiGA activations. HCPs with greater exposure to implementation strategies demonstrated higher awareness and adoption of DiGAs.

Discussion
Identifying barriers and facilitators of DiGA implementation proved essential in systematically addressing challenges to their adoption. Our results highlight the utility of the MOST framework in evaluating and optimising implementation strategies for DiGAs. By testing tailored, multi-faceted approaches, such as onsite meetings and targeted communication, we gained an understanding of the mechanisms of DiGA adoption. The insights of these projects inform the integration of digital health innovations, improving access to mental health care for broader populations.

Challenges
The MOST study's use of existing data, lack of randomisation, evolving strategies, and other confounding variables hindered clear causal attributions and robust strategy evaluation, emphasising the need for controlled, comprehensive designs to optimise implementation processes to understand the adoption of digital health applications.