

EIE2023 – Symposia Abstract Booklet

SYMPOSIA	2
#42 - MAKING PRACTICES MORE RELEVANT: EXAMPLES OF ADAPTATIONS OF THE SAFE CARE PARENTING PROGRAM BY POPULATION, SETTING, AND PROBLEM.....	2
<i>Symposium abstract Nr. 1: Adaptation and delivery of the SafeCare parenting model for refugees in a U.S. resettlement zone</i>	<i>2</i>
<i>Symposium abstract Nr. 2: SafeCare Delivery and Implementation Adaptations Recommendations based on the impact of COVID-19.....</i>	<i>3</i>
<i>Symposium abstract Nr. 3: Adaptation of SafeCare parenting model to address Secondhand Smoke Exposure for young children</i>	<i>3</i>
#46 - THE MEDICATION ADHERENCE KNOWLEDGE AND EXPERTISE AND IMPLEMENTATION TASKFORCE (MAKE-IT): GUIDING, MONITORING AND EVALUATING THE IMPLEMENTATION OF PREVIOUSLY TESTED MEDICATION ADHERENCE PROMOTING INTERVENTIONS IN REAL-WORLD PRIMARY CARE SETTINGS.	4
<i>Symposium abstract Nr. 1.....</i>	<i>4</i>
<i>Symposium abstract Nr. 2.....</i>	<i>5</i>
<i>Symposium abstract Nr. 3.....</i>	<i>5</i>
#106 - WHY IS IT SO HARD TO DE-IMPLEMENT LOW-VALUE CARE PRACTICES IN HEALTH CARE?.....	6
<i>Symposium abstract Nr. 1.....</i>	<i>7</i>
<i>Symposium abstract Nr. 2.....</i>	<i>8</i>
<i>Symposium abstract Nr. 3.....</i>	<i>8</i>
#136 - CAPACITY BUILDING IN GLOBAL IMPLEMENTATION SCIENCE – TRAINING, PLANNING AND SUSTAINING INTERVENTIONS IN VARIOUS CONTEXTS.....	9
<i>Symposium abstract Nr. 1.....</i>	<i>10</i>
<i>Symposium abstract Nr. 2.....</i>	<i>10</i>
<i>Symposium abstract Nr. 3.....</i>	<i>10</i>
#221 - TAILORING THE KNOWLEDGE-TO-ACTION FRAMEWORK TO GUIDE IMPLEMENTATION OF EVIDENCE-BASED PRACTICES IN THE UNITED STATES AND NORWAY	11
<i>Symposium abstract Nr. 1: Implementation in Indianapolis, Indiana (USA), T. George Hornby PT, PhD.....</i>	<i>11</i>
<i>Symposium abstract Nr. 2: Implementation in Grand Rapids, Michigan (USA), Jenni Moore PT, DHS, NCS12</i>	<i>12</i>
<i>Symposium abstract Nr. 3: Implementation in Oslo, Norway, Joakim Halvorsen, PT, MS.....</i>	<i>12</i>
#235 - WHAT ARE NEXT STEPS IN IMPLEMENTATION SCIENCE? IMPLEMENTATION RESEARCH AGENDA, MATCHING STRATEGIES AND SCALING UP PROCESSES.....	13
<i>Symposium abstract Nr. 1.....</i>	<i>14</i>
<i>Symposium abstract Nr. 2.....</i>	<i>14</i>
<i>Symposium abstract Nr. 3.....</i>	<i>15</i>

Symposia

#42- Making practices more relevant: Examples of adaptations of the SafeCare parenting program by population, setting, and problem

Daniel Whitaker¹, Shannon Self-Brown¹, Joanne Bielecki¹, Bianca Albers², Erin Weeks¹, Mary Helen O'Connor¹

¹Georgia State University, Atlanta, USA. ²University of Zurich, Zurich, Switzerland

Introduction to your symposium

Evidence-based practices must often be adapted to enhance their relevance for a population, setting, or problem context. We will present examples of how the SafeCare parenting model was adapted to a population, context, and problem. One presentation will focus on the adaptation of SafeCare for refugees in the US from Afghanistan, Burma, and Democratic Republic of Congo (population). A second presentation will discuss SafeCare delivery during COVID shutdowns (setting) and how fidelity was maintained. A third presentation will discuss how SafeCare was adapted to address issue of smoking in the home (problem), and how effectiveness and fidelity are being tested.

Symposium abstract Nr. 1: Adaptation and delivery of the SafeCare parenting model for refugees in a U.S. resettlement zone

Migrants and refugees families often suffer from poor mental health with high rates of depression, anxiety, and behavioral issues. Through a CDC-funded Prevention Research Center, we adapted and implemented the evidence-based parenting program, SafeCare, for delivery to Afghan, Burmese, and Congolese migrants in a U.S. resettlement zone.

The adaptation process for SafeCare was structured and involved SafeCare experts, implementing agencies, and community members from the targeted populations. An adapted curriculum was developed over a year long process and that curriculum is being implemented by both community-based agencies (delivery as usual) and by independent community members (task-shifting framework) with no special training in service delivery.

To date, 42 families completed a baseline survey (9 Afghan, 19 Burmese, and 14 Congolese), and 28 have completed SafeCare services. Participants were all female, has been in the US on average 5.5 years, had an average 3.4 children (range 1-8), and 52% had less than 8 years of education. Parents who completed the six session PCI module (n = 28) demonstrated substantial behavior change, with skills improving by 81% (53% at baseline to 96% of the end of training), $p < .01$. Satisfaction with SafeCare was high at 4.0 on a 5-point scale.

Many challenges emerged in this implementation and are being documented via qualitative interviews with implementing staff. Key challenges documented to date include COVID-related effects, economic challenges for families, staff turnover, coordination of translation services for program delivery.



Symposium abstract Nr. 2: SafeCare Delivery and Implementation Adaptations Recommendations based on the impact of COVID-19

SafeCare, an evidence-based parenting program serves families at high risk for child maltreatment. In March 2020, most SafeCare agencies transitioned from in-person to virtual delivery due to COVID-19 restrictions. This study examined two research questions: 1) What are the impacts of virtual delivery of SafeCare on family and implementation outcomes? Data Source: NSTRC portal data collected from U.S. and international implementations of SafeCare; 2) What are SafeCare Providers perspectives on virtual delivery compared to traditional in person delivery? Data Sources: June 2020 survey and Fall 2021 focus groups of SafeCare providers

Quantitative results from the portal data indicate that virtual delivery is a promising direction for home visiting programs as it reduced SafeCare program completion time, and families exhibited similar outcomes and satisfaction with virtual delivery compared to in-person delivery. Qualitative results from the survey and focus groups suggest that virtual delivery increases scheduling flexibility, and leads to reduced cancellations and travel time. Virtual delivery also increases program access for some populations. Service providers used creative adaptations for rapport building and family connection to deliver the program virtually, while still maintaining program fidelity. Recommendations for future delivery include a call for virtual delivery resource development (e.g., modeling videos for parents and activities for children) and tools to support for virtual delivery (e.g., internet hotspots for rural families).

Study findings inform program delivery efforts for evidence-based home visiting programs to improve effectiveness, reach, and accessibility for families at risk.

Symposium abstract Nr. 3: Adaptation of SafeCare parenting model to address Secondhand Smoke Exposure for young children

Exposure to secondhand tobacco smoke (SHS) and child maltreatment (CM) are both major threats to child health. Few programs jointly target these co-occurring risks. The purpose of this project is to use a systematic braiding approach to integrate two prevention programs: Smoke-Free Homes: Some Things are Better Outside (SHS) and SafeCare® (CM).

The first 4 steps of the Systematic Braiding process were completed, including: 1) the identification of core elements of the curriculum and implementation process for both programs, 2) the development of an initial draft of the braided curriculum (Smoke-Free Home SafeCare - SFH-SC), 3) a feasibility pilot of SFH-SC with caregivers of young children who reported a smoker living in the home (N=8), and 4) feedback on braided curriculum from SafeCare Providers (N=9).

Results of the feasibility pilot indicated that caregivers were engaged in the SFH-SC program and felt supported discussing SHS with their provider. Caregivers reported an increase in smoke-free home rules from baseline to follow-up, and a reduction in parent stress. SafeCare Provider feedback following intensive review of the curriculum indicated high feasibility for the braided program delivery and implementation fidelity.

Parent and Provider findings suggest SFH-SC is a viable intervention that has potential to reduce SHS and CM. Study findings will inform the procedures for a large NCI-funded Hybrid Trial Type 1 of SFH-SC (Step 5 of Systematic Braiding) to guide future implementation and provide a roadmap for systematically braiding additional interventions.

Key highlights of your symposium

1. Evidence-based practices are typically narrowly focused on specific problems, but successful implementation of those practices must take into account the context in which those EBPs are delivered.
2. Adaptations may be done in a planful, systematic way, or may require on-the-fly, ad-hoc adaptation for emerging problems, such as COVID-19.

Implications for research and practice

There is a critical need to understand the adaptation process, and how adapted interventions are received by providers and consumers. There is also a strong need to understand how providers make adaptation on an ad-hoc basis. This symposium will discuss these issues and show effects on fidelity and acceptability.

Overall discussion

1. What are the key elements of an adaptation process that ensures acceptability and fidelity to the original model?
2. How can we train providers to create ad-hoc adaptations while maintaining model fidelity?

#46- The Medication Adherence Knowledge and Expertise and Implementation Taskforce (MAKE-IT): Guiding, monitoring and evaluating the implementation of previously tested medication adherence promoting interventions in real-world primary care settings.

Marcia Vervloet¹, Daniëlle Eikelboom², Caroline van de Steeg-van Gompel³, Liset van Dijk¹

¹Nivel, Utrecht, Netherlands. ²Sint Maartenskliniek, Nijmegen, Netherlands. ³SIR Institute for Pharmacy Practice and Policy, Leiden, Netherlands

Introduction to your symposium

Medication nonadherence is a large problem world-wide. Although research yielded numerous interventions that have shown to promote medication adherence, these interventions are sparsely implemented in practice. The Medication Adherence Knowledge and Expertise and Implementation Taskforce (MAKE-IT) was founded to guide, monitor and evaluate the implementation of previously tested medication adherence promoting interventions in eight real-world primary care settings (living labs).

In this symposium the design of the MAKE-IT project is presented first. Then the results from a context analysis of the first four living labs are presented. The symposium concludes with the implementation strategies used by these four living labs.

Symposium abstract Nr. 1

Background: Numerous interventions have been developed to promote medication adherence. However, there is still a long way to go when it comes to their application outside research settings.

The overarching aim of our study is to guide, monitor and evaluate the implementation of proven effective medication adherence promoting interventions in real-world settings (living labs) thereby learning about the conditions that hamper or facilitate the implementation

Method/results: Eight local living labs are established. Each living lab implements an existing evidence-based medication adherence intervention in their local setting. The living labs are selected in two rounds of four labs each. The first round started in 2020, the second in 2022. They are guided by the Medication Adherence Knowledge and Expertise and Implementation Taskforce (MAKE-IT), which monitors and evaluates the implementation process in the living labs. The Consolidated Framework for Implementation Research (CFIR) is used for context analyses, the RE-AIM model for outcome evaluation and the Expert Recommendations for Implementing Change study (ERIC) for evaluating the implementation strategies used. Additionally, per living lab a set of patient outcomes is measured. Based on stakeholder analyses, outcomes will be disseminated adapted to the position and interest of the respective stakeholder. A sustainable Adherence Program will ultimately be developed.

Discussion points include what conditions facilitate and hamper the implementation of medication adherence interventions and what lessons can be learned from this project in order to develop a sustainable adherence program and to stimulate wider implementation of medication adherence interventions.

Symposium abstract Nr. 2

Background: An important step in understanding implementation success of interventions is assessing context. However, context is often not reported or only moderately described. Our study aimed to describe context-specific characteristics prior to the implementation of medication adherence promoting interventions in the first round living labs.

Method: We conducted sixteen individual interviews and four focus groups with project leaders and involved healthcare providers. Interview topics were derived from the 'inner setting' and 'outer setting' domains of the Consolidated Framework for Implementation Research (CFIR). Transcripts were analyzed with deductive thematic analysis using these two domains of the CFIR.

Results: In total, 39 healthcare providers (community pharmacists, pharmacy technicians, general physicians, a home care employee) participated. All living labs were pharmacy-driven and shared the following characteristics: a high regard for innovation by staff members; a positive implementation climate; high levels of leadership engagement; and a high compatibility between living labs and the chosen interventions. All shared concerns about external policy, especially lack of reimbursement for sustainability and upscaling. A few notable differences in the contexts were the size of the living labs, the (in)formal way of communication and the level of cosmopolitanism.

Discussion: Our study provides detailed examples of a positive implementation setting, as the first round living labs are considered early adopters. These examples will be used to inform dissemination in less-experienced settings, such as the second round living labs. These context-specific characteristics will be linked to project outcomes to assess the influence of different contextual determinants on implementation

Symposium abstract Nr. 3

Background: The ERIC-study distinguished 73 implementation strategies that can support implementation of interventions in health care. Our study aimed to explore in the first four living

labs, which were considered early adopters, which and how many of these strategies they used when.

Method: In a one-day interactive workshop with two representatives per living lab the MAKE-IT consortium presented the 73 strategies. Representatives were asked to note which strategies they used in their living lab in which phase of the project and how.

Results: Overall, 41 strategies were used by at least one living lab. The living labs used 20, 21, 22 and 31 strategies respectively. Eight strategies were used by all four living labs. These strategies (from ERIC-clusters) were: Assess for readiness and identify barriers and facilitators; Audit and provide feedback (Use evaluative and iterative strategies); Centralize technical assistance (Provide interactive assistance); Inform local opinion leaders; Build a coalition; Use an implementation advisor (Develop stakeholder interrelationships); Develop educational materials; Work with educational institutions (Train and educate stakeholders). The use of implementation strategies changed over the course of the project: from creating support among participants and involving different advisors in the preparatory stage to supporting health care professionals in the implementation phase and evaluating processes in the execution stage.

Discussion points are the challenges we met at the intersection of science and practice, e.g. with introducing the ERIC-strategies to the living lab representatives, classifying implementation activities to the ERIC-strategies and translating the findings into support for health care professionals.

Key highlights of your symposium

By connecting scientific knowledge from scientists with the knowledge and experiences of healthcare practitioners, MAKE-IT facilitates the cross-pollination between both worlds.

Lessons learned from and tools developed in the MAKE-IT living labs are bundled and used to stimulate and support wider implementation of medication adherence interventions.

Implications for research and practice

By studying the implementation in four early adopter living labs, we learned lessons which are now also applied in less-experienced living labs. By combining all the lessons learnt in these living labs, MAKE-IT develops knowledge and tools to facilitate wide-scale implementation of evidence-based medication adherence promoting interventions.

Overall discussion

- For which other topics besides medication adherence could the Make-It method be applied?
- How could the MAKE-IT method also be used in these contexts?

#106- Why is it so hard to de-implement low-value care practices in health care?

Marta Roczniowska¹, Henna Hasson¹, Tijn Kool², Sara Ingvarsson¹, Hanna Augustsson¹, Joris Müskens², Simone van Dulmen², Per Nilsen³, Ulrica von Thiele Schwarz⁴, Sara Korlén⁵, Hanna Wijk¹, Belén Morici¹, Mia von Knorring¹, Gert Westert², Ingunn Sandaker⁶, Pauline Heus⁷

¹Karolinska Institutet, Stockholm, Sweden. ²IQ healthcare Radboudumc, Nijmegen, Netherlands. ³Linköpings universitet, Linköping, Sweden. ⁴Mälardalens universitet, Västerås, Sweden. ⁵Myndigheten för vård- och

Introduction to your symposium

Health care organizations must provide high-quality care and use their resources efficiently. Yet, practices with limited evidence or practices that are potentially harmful keep being utilized. This has led to an increased interest in de-implementation, i.e., the process of abandoning practices of low value. This symposium will synthesize current knowledge and practices concerning de-implementation in healthcare. We will demonstrate how frameworks used to study de-implementation differ from those applied in implementation science, and what are its unique barriers and facilitators. We will demonstrate challenges concerning measurement of low-value care and share experiences of interventions aimed at reducing it.

Symposium abstract Nr. 1

Background: Within implementation science numerous frameworks identify a wide range of factors that can influence implementation. However, it is not certain that the same factors influence the use and de-implementation of low-value care (LVC). We will share results from research we have conducted to find out what factors influence the use and de-implementation of LVC.

Methods: A qualitative evidence synthesis, a scoping review, two qualitative studies and a cross-sectional survey have been conducted to understand which factors influence the use and de-implementation of LVC.

Results: Factors have been found on several levels of the healthcare system that influence the use and de-implementation of LVC. Examples are factors in the outer context of the healthcare system, such as lack of national governance and financial incentives that inadvertently can lead to more LVC, factors in the inner context of the healthcare organization such as the organizational context, or processes with standardized orders of LVC, and factors related to the individual healthcare practitioner such as fear of malpractice and the patients, such as patient expectations, lack of time and insufficient patient information.

Conclusion: There are similar factors that influence the use and de-implementation of LVC as in implementation. Three factors seem to be different: the influence of the individual patients, professionals' fear of malpractice and the lack of clear responsibilities related to de-implementation.

Discussion points:

- How could national governance be designed to help the health care practitioners reduce their use of LVC?
- Who is responsible for de-implementation (individuals or system)?

Symposium abstract Nr. 2

Background: An essential first step in the de-implementation of low-value care is knowing its prevalence. Besides providing insight regarding the existence of this problem, it also creates awareness among healthcare professionals about the necessity of de-implementation. So far, most assessments of the prevalence of low-value care have been conducted in the US, Australia and Canada, and their outcomes greatly differ for a multitude of reasons. We therefore aim to share our knowledge regarding the opportunities and challenges of measuring low-value care.

Method: We conducted a systematic review regarding assessments of low-value (or overuse) diagnostic testing and performed several assessments using both administrative and medical record data.

Results: We observed large heterogeneity among the identified assessments of low-value care, even among assessments of similar diagnostic tests. We discerned several key-aspects that could explain the differences in assessment outcomes: differences in assessment lenses, used data sources, low-value care definitions and their operationalization. The use of different assessment lenses (e.g., a patient-population, patient-indication or service lens) has especially large impact on the assessment outcome, with median outcomes of each lens being 11.0%, 2.0% and 30.7%.

Conclusion: The assessment of low-value care is possible, and can be achieved through multiple methods, making the comparison of assessment highly intricate and should be done with care. The provision of clear interpretations and description of methods could aid in the comparison of findings.

Discussion points

- Could we standardize the methods of assessing low-value care?
- Do these challenges make the comparison of assessment outcomes between countries impossible?

Symposium abstract Nr. 3

Background: Low-value care and strategies to reduce it have received increasing attention. The best (combinations of) interventions to reduce low-value care are unclear. The goal of this presentation is to showcase what we have learnt about the best strategies for de-implementation. We conducted a systematic review and we will make the results concrete with 2 examples of implementation studies performed by our research groups.

Methods: We have performed a systematic review to describe and compare the effectiveness of de-implementation strategies. We analyzed 121 randomized controlled trials (1990-2019) evaluating a strategy to reduce low-value care. De-implementation strategies were described and associations between strategy characteristics and effectiveness explored.

Results: The systematic review findings demonstrated that of 109 trials comparing de-implementation to usual care, 75 (69%) reported a significant reduction of low-value

healthcare practices. 73 trials included in a quantitative analysis showed a median relative reduction of 17% (IQR 7% - 42%). The effectiveness of de-implementation strategies was not associated with the number and types of strategies applied.

Discussion points:

- What are the best designs to evaluate de-implementation interventions?
- What are the best ways to map strategies to identified barriers?
- How to explain that multi-component interventions were not more effective than single components?

Key highlights of your symposium

This symposium will demonstrate the opportunities and challenges of de-implementing low-value care. This is a priority in many countries to keep the healthcare system sustainable.

This symposium aspires to help researchers, healthcare professionals, patients and policymakers to effectively de-implement LVC in their own country by giving practical tips and tricks.

Implications for research and practice

The findings presented in the symposium have implications for implementation science and practice concerning how de-implementation barriers and facilitators differ from implementation, and how measurement of low value care can be done. Furthermore, implications concern interventions to reduce low value care.

Overall discussion

- What are, in your opinion, the differences between implementation and de-implementation?
- Which influencing factors mentioned in the symposium are most relevant for your country?

#136- Capacity building in global implementation science – training, planning and sustaining interventions in various contexts.

Nora Braathu¹, Ane-Marthe Solheim Skar^{1,2}, Laura Shields-Zeeman³, Michel Wensing⁴, Juliet Babirye⁵

¹Norwegian Centre for Violence and Traumatic Stress Studies, Oslo, Norway. ²Norwegian Institute of Public Health, Oslo, Norway. ³Netherlands Institute for Mental Health and Addiction, Utrecht, Netherlands.

⁴Heidelberg University Hospital, Heidelberg, Germany. ⁵Makerere University College of Health Sciences, Kampala, Uganda

Introduction to your symposium

The 2030 Agenda for Sustainable Development urges international support for implementing effective capacity building, through strengthening the skills and resources that communities need to adapt and sustain transformation (United Nations, 2022). Sustainment is key for successful implementation. To understand factors important for sustainment, an understanding of the whole implementation process is key, and may include training of

implementers, planning, and the actual implementation. Implementation research projects from Germany, Norway, and the Netherlands will present experiences with capacity building in global settings, with the aim of learning from each other to provide more effective and sustainable interventions in various contexts.

Symposium abstract Nr. 1

Although most intervention studies discuss the importance of capacity building to facilitate sustainability, few studies report on specific strategies used to ensure this, and even fewer are conducted in low- and middle-income countries (LMICs, Hailemariam et al., 2019). This presentation will introduce the TREAT INTERACT project, where the main aim is to develop, implement, and evaluate the impact of an intersectoral program to identify and prevent mental health problems in children and adolescents in Uganda, with a special focus on sustainability and capacity building. To do this, we will implement a task-shifting program for sustainable, large-scale evidence-informed mental health strategies through the Mental Health Gap Action Programme Intervention Guide (mhGAP-IG), launched by the World Health Organization. The presentation will outline steps taken to ensure capacity by integrating the mhGAP in the existing health and education infrastructures, and by prioritizing stakeholder involvement.

Symposium abstract Nr. 2

Capacity building in implementation research and implementation of interventions in low and middle-income countries remains an important area of focus but is often under prioritized. This presentation will draw upon experience and lessons learned through two case studies: the RECOVER-E project, a European Commission Horizon 2020 funded program implemented by 16 partners in 5 countries in Central and Eastern Europe focused on implementing a community-based model of specialized mental health care, and SPIRIT, a U.S NIMH funded collaborative hub for suicide prevention in India, Bangladesh, and the Netherlands. In both projects, multiple capacity building strategies were implemented to build capacity of community members, healthcare workers, policymakers and researchers in mental health. This presentation will outline the implementation strategies used to build, as well as highlight challenges to address in future work, including supervision and mentoring structures, ways to use implementation research findings in policy dialogues, and co-creating intervention approaches with community members.

Symposium abstract Nr. 3

To develop capacity in health-related implementation science in Germany, a 2-year full-time Master of Science program for health services research and implementation science was started at Heidelberg University in 2015, funded by the Ministry of Education of the state Baden-Württemberg, Germany. Yearly 20 students start and about 100 have completed the program so far. The program comprises modules on implementation science, quality management and organizational development as well as more generic modules on the principles and methods of scientific research. The development of the program was accompanied by evaluations of students' and teachers' experiences and studies on job perspectives. The key findings of this research will be presented and discussed at the conference with a view on lessons for developing capacity for implementation science.

Key highlights of your symposium

Capacity building should be a vital part of any implementation project. Lessons learned from this symposium will provide guidance to future projects on how to ensure sustainment. We will outline different parts of implementation research and practice, from training of students, planning a project to actual implementation.

Implications for research and practice

Capacity building is vital for the successful usage of knowledge derived from implementation science. This symposium will facilitate a knowledge exchange between three different crucial stages in implementation science and practice. Sharing of knowledge will help building research capacity the field of global implementation research.

Overall discussion

- How to include research questions related to capacity-building in implementation research projects.
- How to involve policy-makers in capacity-building activities in implementation research.

#221- Tailoring the Knowledge-to-Action Framework to Guide Implementation of Evidence-Based Practices in the United States and Norway

Jenni Moore¹, Thomas George Hornby², Joakim Halvorsen³, Ingvild Lillieheie¹

¹Sunnaas Hospital, Oslo, Norway. ²Indiana University, Indianapolis, USA. ³Forsterket Rehabilitering Aker, Oslo, Norway

Introduction to your symposium

The Knowledge-to-Action framework (KTA) is an implementation framework that is commonly used in physical rehabilitation. This symposium describes how the KTA informed the implementation strategy, outcome selection, data collection, and analysis of an implementation project performed at four hospitals in the United States (n=2) and Norway (n=2). The KTA was tailored to the needs of each hospital as the teams implemented high-intensity gait training (HIT), which resulted in different dynamic processes and outcomes. The implementation methods and outcomes will be presented. Similarities and differences in the framework's application and implementation outcomes will be discussed.

Symposium abstract Nr. 1: Implementation in Indianapolis, Indiana (USA), T. George Hornby PT, PhD

Background. Evidence demonstrates that gait training at higher cardiovascular intensities (HIT) facilitates greater walking outcomes. This presentation describes the use of the KTA to successfully implement and evaluate the comparative effectiveness of HIT to usual care during inpatient stroke rehabilitation in Indianapolis, Indiana (USA). **Methods.** The KTA guided the implementation plan, which included assessment of usual care, adaptation to the local context, barrier assessments, implementation strategies, and monitoring knowledge use. Fidelity metrics included percentage of sessions prioritizing gait interventions and

documenting intensity. Changes in stepping activity and functional outcomes were compared over 9 months during usual-care (n = 131), an 18-month transition phase with attempts to implement HIT (n = 317), and 12 months following HIT implementation (n = 208). Implementation strategies used during the transition phase included educational meetings and workshops, mentoring, and audit and feedback. Results. Efforts to prioritize stepping and achieve targeted intensities led to increased steps/day ($p < .01$). After 18-months of implementation efforts, HIT was implemented consistently with fidelity. Functional measures indicated that HIT resulted in greater gains in walking speed ($p=.01$) and walking distance ($p<.01$) than usual care. Discussion points. The KTA plan required an 18-month transition phase that included several iterations of barrier assessments, selection of new implementation strategies, and monitoring knowledge use. After the transition phase, clinicians implemented HIT with fidelity and patient outcomes were assessed. HIT led to increased steps/day, resulting in greater gains in locomotor and non-locomotor outcomes.

Symposium abstract Nr. 2: Implementation in Grand Rapids, Michigan (USA), Jenni Moore PT, DHS, NCS

Background. The KTA guided the implementation of standardized assessments and HIT into clinical practice at a hospital in Grand Rapids, Michigan (USA). Method. The multi-component implementation plan included implementation facilitation, implementation leadership, and a bundle of knowledge translation interventions that targeted barriers. Two project phases were implemented sequentially. Phase 1 implemented standardized assessments (i.e., usual care), and phase 2 implemented HIT. Results. Phase 1 resulted in 46% adherence to administration of the standardized measures initially. However, with use of ongoing implementation strategies, adherence increased to more than 85% after 6 months. These adherence levels remained consistent 48 months after implementation. Phase 2 occurred over 3 years and required 3 KTA iterations that included barrier assessments, selection of new implementation strategies, and monitoring fidelity of the intervention. After 3 years of implementation efforts, improvements in documentation of fidelity metrics were demonstrated. Stepping activity increased from 2494 +/- 1865 steps/day to 2847 +/- 1592 steps/day, and steps per physical therapy session increased from 983 +/- 975 steps to 1542 +/- 1018. While these improvements were noted, ongoing implementation with fidelity was needed to demonstrate significant changes in clinical practice when comparing to usual care. Discussion points. The KTA guided the implementation of standardized assessments and HIT, resulting in different implementation outcomes despite consistent staff, leadership, and organizational factors. The required implementation time periods were different, and standardized assessments were successfully implemented more quickly than HIT.

Symposium abstract Nr. 3: Implementation in Oslo, Norway, Joakim Halvorsen, PT, MS

Background. While HIT is recommended in stroke rehabilitation, identifying effective and efficient implementation methods is challenging. This presentation will describe an implementation project conducted in two inpatient stroke rehabilitation facilities in Oslo, Norway. Methods. The KTA guided the implementation of gait assessments and HIT. Barriers were identified and the Consolidated Framework for Implementation Research was used to select implementation strategies to overcome barriers. An iterative approach of monitoring barriers and using implementation strategies (n=26) was employed to implement with fidelity. Implementation fidelity was determined by steps/day, steps/physical therapy

session, and heart rates achieved during therapy. Patient outcomes included measures of gait speed, walking distance and balance. A quasi-experimental design was used to compare practices and outcomes of usual care (n=56) to HIT (n=54). Results: Barriers included knowledge, beliefs, perceived adaptability of HIT, resources, culture, and others. Clinicians implemented HIT with fidelity in < 1 year, and fidelity metrics demonstrated a significant increase ($p < .001$) in steps/PT session, steps/day, and patients spent ~34% of sessions in the target heart rate zone. Patients demonstrated improved gait speed and walking distance ($p < .001$), when compared to usual care. The 2-year follow-up survey indicated that the new practice was sustained. Discussion points. In this project, a transitional phase of attempting HIT was not required. The clinicians quickly implemented with fidelity at the beginning of phase 2. Contributors to successful implementation may include the implementation methods, usual care interventions, and clinicians' readiness for this change.

Key highlights of your symposium

The Knowledge-to-Action Framework can be tailored to address the unique needs of an implementation project.

Although these hospitals used the Knowledge-to-Action Framework to implement the same practices, each implementation plan was unique and required different lengths of time to complete.

Implications for research and practice

Implementation frameworks inform all aspects of implementation projects. This symposium illustrates how a framework can guide implementation while being tailored to the individual needs of a project, organization, and team. This symposium also demonstrates how the KTA is dynamic and responsive to issues that arise during implementation.

Overall discussion: Discussion, Ingvild Lillieheie PT, PhD

- How can the Knowledge-to-Action Framework guide implementation projects while being tailored to the unique needs of a team and organization?
- How can the Knowledge-to-Action Framework respond to unexpected issues that arise during implementation?

#235- What are next steps in implementation science?

Implementation research agenda, matching strategies and scaling up processes

Femke van Nassau¹, Christiaan Vis², Rixt Smit¹, Sebastian Potthoff³

¹Amsterdam UMC, Amsterdam, Netherlands. ²VU University, Amsterdam, Netherlands. ³Department of Social Work, Education and Community Wellbeing, Northumbria University, Northumbria, United Kingdom

Introduction to your symposium

In recent years, implementation research has gained more attention in the Netherlands. It was therefore that the national funding agency ZonMw wanted to develop a Dutch implementation research agenda. Based on a priority setting exercise in the agenda, two spin off projects were launched to address key gaps identified in the agenda: methods to

match determinants to strategies, and insight into scaling up processes. Speakers will present the research agenda and results of the two follow-up projects, followed by a lively discussion. Attendees will be up to date about the research agenda and inspired by the two synthesize projects.

Symposium abstract Nr. 1

Background: Scarce funding of implementation research has resulted in mainly context specific knowledge and lacks generalizability to other contexts. Therefore, the Netherlands Implementation Collective (NIC) was asked by the national funding agency ZonMw to develop a Dutch implementation research agenda.

Methods: We held interviews with Dutch implementation researchers, conducted a 2-round e-Delphi study, and reached out to professionals to share their implementation barriers in an online survey. In the e-Delphi study, panelists were asked to provide research questions in round 1, which were then merged into 31 proposed research topics. Delphi panelist scored these topics. Consensus was reached if 67% agreed with inclusion of the topic. These topics guided the thematic analyses of the input of the survey among practice professionals.

Results: Of the 47 invited researchers, 26 (55%) participated in round 1 (222 research questions). Twenty participants (77% of 26) completed round 2, in which consensus was reached on 14 topics. The survey among 74 practice professionals provided 230 barriers. Topics were categorised into 7 themes linked to implementation, sustainability, scale-up and de-implementation, such as knowledge on how to link determinants to strategies, tailoring of strategies, using innovative research designs. But also need for capacity for implementation and implementation research was expressed, and the need for practical tools to apply evidence-based implementation in practice.

Discussion: By combining both input from implementation researchers (how does it work) as well as professionals (how to apply), the research agenda addresses topics relevant for both fields. But how to disseminate these findings?

Symposium abstract Nr. 2

Background. Without effective strategies, the majority of scientifically developed healthcare interventions fail to be implemented successfully. After identifying determinants of implementation, strategies need to be selected to address identified determinants. In order to improve the implementation outcomes, this process should be guided by methods that ensure that the most effective implementation strategy is selected. This study aimed to describe methods for matching strategies to address determinants affecting the implementation of evidence-based practices reported in scientific literature complemented this with those used in practice.

Methods. We conducted a scoping review to synthesize scientific literature and semi-structured interviews with implementation practitioners. This enabled us to triangulate methods reported in the literature with matching methods applied in implementation practice. A review protocol including definitions, inclusion criteria, data extraction format and interview topic guide was developed.

Results. In total, 4,699 unique studies were retrieved from 5 bibliometric databases. After screening titles and abstracts, 184 articles were selected for full-text screening. Interviewees (n>15) were recruited through relevant networks and organizations involved in implementing evidence-based interventions in various health care settings. Analyses showed a broad variation in approaches, where some were more theory driven, whilst many more had a more pragmatic approach.

Discussion: This study provides an overview of methods for matching implementation strategies to determinants that are described in scientific literature and contrast this with how implementation strategies are selected in practice. Do we need a one size fits approach to match determinants to strategies?

Symposium abstract Nr. 3

Background: Many evidence-based health interventions are proven effective, yet scaling up appears complex and does not always occur easily. This study aimed to determine determinants, pathways and scale-up strategies leading to successful scale-up of health promotion interventions in the Netherlands.

Methods: We used mixed-methods data to learn from scale-up experiences of health interventions in the Netherlands. Semi-structured interviews were conducted with intervention owners (N=25) from a broad range of successfully scaled health promotion interventions in different settings (i.e. school, community, workplace, sport) and targeting different populations (i.e. children, adults, elderly). In addition, we conducted interviews with other relevant stakeholders (N=10) involved in scaling up processes. Additionally, a survey was distributed among all interventions (N=306) registered in the national intervention database to map scale-up experiences. Survey data was analysed using SPSS and qualitative data was analysed using thematic analysis.

Results: Scaling up usually does not occur after one decisive moment, but is often the result of different circumstances, such as persistent commitment of intervention owners and stakeholders, new funding opportunities, and certification/accreditation by recognized institutions. These 'magic push buttons' together lead to a scale-able moment. Pathways vary from a more research driven, a bottom-up practice driven, policy oriented and a more commercial approach. Several scale up strategies were identified related to funding, organisation process, monitoring and advocacy.

Discussion: These insights can help future researchers, practitioners and policy makers to bring their intervention to scale. How can we translate this knowledge into practical guidance?

Key highlights of your symposium

- the research agenda showed a need for researchers (how does it work) as well as for professionals (how to apply it)
- relative small synthesizing projects like the matching strategies and scaling up process can help to move the agenda forward

Implications for research and practice

- This symposium will provide insight into current gaps in implementation science knowledge, both from a research and practice view.
- Results of the two spin-off projects will help future researchers and practitioners to match strategies, and plan for scaling up in order to have impact on a broader level.

Overall discussion

Our overall discussion will be led by dr. Sebastian Potthoff (UK) with a focus on:

- how generalizable are the results of the research agenda to other countries?
- what practical tools should be developed in order to put the obtained knowledge with regards to matching strategies and scaling up?