

## **RTKW 6 - #EIE2023**

RIDE THE KNOWLEDGE WAVE 6.....	2
<b>#54 - THE FEASIBILITY AND ACCEPTABILITY OF IMPLEMENTATION STRATEGIES TO IMPLEMENT THE COMBINED LIFESTYLE INTERVENTION PROMUSCLE IN COMMUNITY-SETTINGS: A MIXED-METHODS PILOT STUDY .....</b>	<b>2</b>
<b>#57 - EXPLORING THE FACTORS THAT DETERMINE THE SUSTAINABILITY OF RECOVERY-ORIENTED INTERVENTIONS FOR ADULTS WITH MENTAL HEALTH ISSUES. ....</b>	<b>3</b>
<b>#78 - PROGRAMMATIC COSTS OF PROJECT IMPACT FOR CHILDREN WITH AUTISM: A TIME-DRIVEN ACTIVITY BASED COSTING STUDY.....</b>	<b>4</b>
<b>#85 - OBTAINING SUSTAINABLE CHANGES IN CLINICAL PRACTICE: METHODS AND RESULTS OF A SUSTAINABILITY PLAN FOR HIGH-INTENSITY GAIT TRAINING IN INPATIENT STROKE REHABILITATION IN NORWAY .....</b>	<b>5</b>



## Ride the Knowledge Wave 6

### #54- The feasibility and acceptability of implementation strategies to implement the combined lifestyle intervention ProMuscle in community-settings: a mixed-methods pilot study

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#### Research aim

To inform an implementation effectiveness trial, this research aimed to investigate the feasibility, acceptability and fidelity of two recently developed, co-created implementation strategies targeting education and costs, to implement the combined exercise and nutrition intervention ProMuscle for community-dwelling older adults.

#### Setting

Costs and education were recently identified as main barriers for implementation of a combined lifestyle intervention. In this pilot study, implementation strategies will be investigated in seven communities of the Dutch 'Foodvalley Region' that are willing to implement ProMuscle. Physical therapists, and dieticians will collaborate in this study.

#### Method(s)

This study followed an exploratory sequential approach with a mixed-method design and included eight physical therapists and three dieticians working in the region Foodvalley, the Netherlands. After written informed consent, participants received a digital implementation toolbox in which previously developed implementation strategies were described targeting education and costs.

With online surveys, translation of the AIM, IAM and FIM (5 points-scale) of Weiner et al., feasibility and acceptability outcomes were collected at baseline, 3 months and 8 months post-implementation. During a 90-minute focus group, more insight was gained into the feasibility and acceptability as well as the fidelity of implementation strategies.

#### Key finding(s)

Participating physical therapists and dieticians deemed the implementation strategies acceptable (AIM mean score  $4.3 \pm 0.47$ ) and feasible (FIM mean score  $4.5 \pm 0.49$ ) eight months after the start of implementation. Most implementation strategies were executed by healthcare professionals as proposed by the implementation toolbox. This toolbox was perceived as helpful and easy to use. Also, ideas for improvement of the toolbox were presented. Moreover, implementation took longer than expected, and recruitment of older adults was difficult, resulting in only 2 of the 16 practices offering ProMuscle to older adults after eight months. Still, professionals remained motivated to implement ProMuscle.

#### Discussion

- ProMuscle is currently not reimbursed by healthcare insurances and therefore should be financed by recipients or other funding possibilities, resulting in low attendance. Will facilitation by the research team for assessing funding possibilities, or a national

campaign as proposed by healthcare professionals be successful strategies or would this counteract sustainment of the intervention?

- The process evaluation indicated that interdisciplinary collaboration was an important factor that could affect the effectiveness of the strategies targeting costs and education. It seems that building a coalition should be integrated into the implementation strategies. Would this result in contamination of the larger trial?

### Challenges

It took longer than expected to start the actual implementation of ProMuscle by the professionals. To deal with it, we tried to convince them about the support of the toolbox by email and phone during the pilot. In the larger trial, we will take into account a prolonged start-up time.

### Key highlights

- Strategies targeting education and costs seem feasible to investigate the effectiveness in a larger trial. However, a prolonged start-up time should be considered.
- ProMuscle is well received by older adults and professionals are committed to implementation. This and financial compensation probably led to continued motivation during the study.

## #57- Exploring the factors that determine the sustainability of recovery-oriented interventions for adults with mental health issues.

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### Research aim

This study aims to assess the capacity of four organizations to sustain two mental health recovery-oriented interventions two years after initial implementation, identify the facilitators and barriers for sustaining the interventions, and understand why some factors are associated with a higher/lower level of sustainment of the recovery-oriented interventions.

### Setting

This study builds on a pan-Canadian project that was conducted between 2017-2021. This project aimed at facilitating and evaluating the implementation of mental health recovery-oriented guidelines. Four out of the seven organizations that participated in the initial study were selected for study as cases in this follow-up research.

### Method(s)

This research follows a mixed methods multiple case study design. Qualitative and quantitative data are being collected from managers, clinicians, and implementation team members of the four participating organizations. Data collection tools and analysis are based on implementation science frameworks including the Consolidated Framework for Sustainability Constructs in Healthcare, the Program Sustainability Assessment Tool (PSAT) and the Framework for Reporting Adaptations and Modifications-Enhanced (FRAME). Data analysis consists of within-case analysis and cross-case synthesis to allow for a thorough understanding of the unique issues in each case and for similarities, dissimilarities, and common patterns across organizations to emerge.

### Key finding(s)

Data collection and analysis are in progress. Preliminary findings will report on the factors that determine the sustainment of recovery-oriented interventions.

### Discussion

Sustainability is a significant concern for all involved actors in healthcare. Researchers have not yet explored the concept of sustainability in great depth in mental health. This study has added value in filling this gap in our knowledge, and findings could pave the way for more focused research. Two key questions to discuss with the audience:

- What are the differences/similarities between the determinant factors of sustainability between the two recovery-oriented interventions?
- How are these sustainability factors different/similar with implementation facilitators/barriers of recovery-oriented interventions? What are the implications for implementing and sustaining recovery-oriented interventions?

### Challenges

Recruiting and engaging sites that didn't sustain the intervention has proven challenging. Existing definitions of sustainability/sustainment and related tools are partially applicable to explore the sustainability/sustainment of recovery-interventions since they do not include explicitly the concept of fidelity.

### Key highlights

Findings from this study will expand our evidence base on the intersection of sustainability and mental health recovery interventions that remains under-explored. Findings will provide new insights into the applicability of sustainability frameworks in mental health and the capacity of organizations to sustain mental health interventions.

## #78- Programmatic Costs of Project ImPACT for Children with Autism: A Time-Driven Activity Based Costing Study

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### Research aim

We conducted a randomized trial of Project ImPACT (Improving Parents As Communication Teachers) in which community early intervention providers coached caregivers in techniques to improve young children's social communication skills. We estimated implementation and intervention costs while demonstrating an application of Time-Driven Activity-Based Costing.

### Setting

mental health, community early intervention

### Method(s)

We defined Project ImPACT implementation and intervention as processes that can be broken down successively into a set of procedures. We created process maps for both implementation and intervention delivery. We determined resource use and costs, per unit procedure in the first year of the program, from a payer perspective. We estimated total implementation cost per clinician and per site, intervention cost per child, and provided estimates of total hours spent and associated costs for implementation strategies, intervention activities and their detailed procedures.

### Key finding(s)

Total implementation cost was \$43,509 per-clinic and \$14,503 per-clinician. Clinician time (60%) and coach time (12%) were the most expensive personnel resources. Implementation coordination and monitoring (47%), ongoing consultation (26%) and clinician training (19%) comprised most of the implementation cost, followed by fidelity assessment (7%), and stakeholder engagement (1%). Per-child intervention costs were \$2,619 and \$9,650, respectively, at a dose of onehour per-week and

four hours per-week Project ImPACT. Clinician and clinic leader time accounted for 98% of per-child intervention costs. Highest cost intervention activity was ImPACT delivery to parents (89%) followed by assessment for child's ImPACT eligibility (10%).

### Discussion

- Uncompensated time costs of clinicians are large which raises practical and ethical concerns. How to incorporate them in the planning of implementation initiatives.
- How to encourage researchers to assess costs more systematically, relying on process mapping and gathering prospective data on resource use and costs concurrently with their collection of other trial data.

### Key highlights

Our cost estimates can serve as a reference point to publicly funded early intervention systems who may wish to adopt Project ImPACT.

The use of TDABC contributes to methodological advances in Implementation Science regarding standardized methods for detailed, transparent, and quality cost information and evaluation.

## #85- Obtaining Sustainable Changes in Clinical Practice: Methods and Results of a Sustainability Plan for High-Intensity Gait Training in Inpatient Stroke Rehabilitation in Norway

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### Research aim

This project aimed to evaluate the sustainability of high-intensity gait training two years after it was implemented in inpatient stroke rehabilitation at Forsterket rehabilitering Aker, Helseetaten, Oslo kommune. Sustainability of practice was defined as maintaining the stepping activity, cardiovascular intensity, and functional outcomes achieved during the initial implementation project.

### Setting

Inpatient subacute stroke rehabilitation in primary healthcare in Norway. The unit consists of an interdisciplinary staff, and patients receive five hours of individual physical therapy sessions per week.

### Method(s)

In 2018, high-intensity gait training was successfully implemented with fidelity using the Knowledge-to-Action Framework in inpatient stroke rehabilitation (Moore et al. 2020; Moore et al, 2021). The NHS Sustainability Model was used to guide the sustainability efforts in the model's three domains, and factors with high potential were identified and targeted. Strategies to promote the sustainability of high-intensity gait training were implemented; however, no active implementation strategies were used after completion of the implementation project. Two years after implementation, fidelity metrics were collected and compared to the implementation phase to determine whether the practice was sustained.

### Key finding(s)

Fourteen explicit strategies to promote sustainability were utilized. The NHS Sustainability total score was 79 out of 100, indicating «reason for optimism» in the sustainability process accordingly to the NHS. The factors not reaching full score were «adaptability», «strategic aims», «infrastructure», and

«senior leadership engagement», with the latter being the single factor with the most potential for improvement. Comparisons between the implementation and sustainability phases determined that the practice had some minimal changes. However, the patients still achieved the same beneficial functional results.

#### Discussion

Despite identified changes in practice, patients continued to receive high-intensity gait training leading that resulted in similar functional benefits two years after the initial implementation. These results lead to two questions:

- When do minor changes in practice compromise the sustainability of an implemented practice?
- What other sustainability strategies should be added to ensure the practice continues to be delivered with fidelity?

#### Challenges

The COVID-19 pandemic led to substantial changes in our unit. Sustainability might have been influenced by activity restrictions, as well as by reduced personnel resources.

#### Key highlights

After successful implementation, strategies are needed to ensure sustainability. Analyses of sustainability should be included as part of implementation research; otherwise, the long-term benefits for society will remain unknown. Using the NHS Sustainability Model may help identify areas with potential for high impact and guide and focus the sustainability strategies.