MACH
Melbourne Academic
Centre for Health

MacHSR Future Leaders Fellowship program
Final reporting (Cohort 3)

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Project title: ***SMOOTH*: S**ystematic **M**easurement of **O**utcomes in **O**ccupational **T**herapy **H**ealth Services

Report:

Problem Overview

Avoidable hospital readmissions are rising disproportionately to hospitals' resources (IHACPA, 2021). Those at the greatest risk of avoidable readmissions are those with impairments in activities of daily living (Schiltz et al., 2020). Occupational therapy (OT) affords strong economic value in reducing these readmissions through OT's ability to reliably predict post discharge performance in these essential tasks and intervene accordingly (Rogers et al., 2017; Wales et al., 2022). Despite OT's significant value, occupational therapists largely favour informal assessment approaches, resulting in the inconsistent identification of this high-risk patient population. Standardised participation-based outcome measures present a potential solution, yet their uptake is low, restricting the discipline's ability to have the greatest impact (Davenport & Underhill, 2023; Wales et al., 2022).

The Functional Autonomy Measurement System (French Acronym: SMAF) is a known, effective participation-based outcome measure that can positively and significantly impact patient care in OT as well as patient flow in hospitals (Hebert et al., 1988; Tse et al., 2023). The SMAF identifies impairments in essential everyday activities, but also recognises when these limitations are resolved or compensated for, signalling readiness for discharge. This tool was not used in OT at St Vincent's Hospital Melbourne (SVHM) before the SMOOTH project. Across other Victorian hospitals, uptake of the SMAF, or similar participation-based outcome measures, remains low or inconsistent due to implementation barriers (D'Souza et al., 2025). This raises questions of what these barriers are, and how we can best facilitate the sustained uptake of these tools.

Project Aims

i. To identify local barriers and facilitators to SMAF use at SVHM;
ii. Implement the SMAF in inpatient OT using a knowledge translation intervention ('the intervention'); and
iii. To investigate the impact of the intervention to effect behavioural change.

Methods

This study used an observational, mixed methods design. Pre-implementation data was collected using questionnaires and focus groups to gather comprehensive data on local barriers and facilitators to SMAF use. The data was analysed and mapped to the Theoretical Domains Framework (Cane et al., 2012) to support the intervention's design. Post implementation data using questionnaires will be collected at two time points to assess the impact of the intervention longitudinally. The intervention was delivered through a structured, multiphase implementation model designed to build engagement, capability, and sustainability of SMAF use.

Activities

Stage	*Focus*	*Key Activities*
Stage 1	Knowledge Development and Preparation	• Introduction to health-services research subject completed (October 2024) • Internal stakeholder group established for organisational governance (2024) • Ethics approval received (February 2025) • Introduction to RedCap course completed (February 2025) • Fortnightly research supervision with university partners (2024 – 2026)
Stage 2	Data Collection and Analysis	• Pre-implementation focus groups conducted and data analysed jointly with university partners (March – June 2025) • Questionnaire data collected and analysed (March – May 2025)

		• Baseline data mapped to the Theoretical Domains Framework (May – June 2025)
Stage 3	Intervention Development and Implementation	• Knowledge translation strategy developed and endorsed (June – August 2025) • Pre-implementation data and the implementation blueprint presented to the research participants (September 2025) • SMAF Implementation working party established (September 2025) • Education and training workshop developed and delivered to participants (September 2025) • Simulations developed and rolled out (October 2025) • Additional resources developed and piloted (September – November 2025)
Stage 4	Clinician Co-Design and SMAF Launch	• Clinician co-design workshop facilitated and data analysed (November 2025) • Final SMAF support resources developed and rolled out (September – November 2025) • SMAF launched (December 2025)
Stage 5	Post-Implementation Planning and Data Collection	• Ethics amendments for protocol change for an additional data collection time point (October – January 2026) • Transitioned the SMAF implementation working party to be self-governing (January 2026) • 'Early implementation' data collected and analysed (February 2026)

Project Refinements

Several refinements were made to the project's design and the intervention in response to emerging needs and organisational preferences. Data collection was expanded, beyond the original pre-implementation and six-month time points, to include an additional three-month post-implementation measure. This enabled earlier insight into behavioural change and supported monitoring of uptake over time. The intervention plan initially proposed establishing an implementation working party comprised of early adopters, consistent with implementation science recommendations. However, to align with local organisational preferences, this approach was adapted to include senior clinicians instead. Simulations were incorporated into the intervention; however, the original plan to use volunteers was not feasible due to unexpected timeline delays. Alternatively, clinicians used scripted scenarios and role-played the patient to maintain the intended learning outcomes.

Barriers and Delays

Early in the Fellowship, there was routine, weekly access to a Grade 4 OT researcher for discipline-specific guidance and support. Owing to an extended vacancy, however, that resource came to an end. Consequently, an associated REF grant, originally intended to provide research assistant support under the Grade 4 OT researcher's leadership, could not be used as planned. As a result, access to routine internal research expertise was reduced, increasing reliance on university supervisors and the Allied Health Research and Knowledge Translation Lead. Further, the planned deliverables needed to be realigned to be achievable without utilisation of the REF grant.

Progress was affected at times by extended internal processes. Multiple rounds of review, and the need for ongoing negotiation between several stakeholders contributed to extended timeframes for approval or progression of key research activities. In addition, implementation activities were temporarily paused when emerging external SMAF research prompted an unanticipated internal review. Further analysis and consultation was requested internally before approval to proceed was provided. This deviation compressed the timeline for several planned deliverables.

Achievements and Impacts

Across the Fellowship period, substantial progress was made in advancing the implementation of the SMAF and strengthening the foundations for ongoing knowledge translation in OT at SVHM. Extensive pre-implementation data collection and analysis provided a strong empirical basis for decision-making, and informed targeted

implementation strategies. A comprehensive suite of resources—including education materials, documentation templates, and support tools—was developed to build clinician capability and confidence, with preliminary data showing increased confidence following the intervention.

A major achievement was progressing the project toward a model in which SMAF implementation can be increasingly self-governed through an established working party. Though still developing, this structure has supported shared ownership, strengthened sustainability, and aims to reduce reliance on individual project leads. The SMAF is now being used routinely at SVHM, with ongoing strategies to strengthen compliance. This shift supports more consistent, data-driven decision-making. Clinician co-design was central to shaping the final model, ensuring alignment with clinical workflows and fostering meaningful engagement.

The implementation approach has also established a replicable model with key learnings applicable to other settings and future knowledge-translation initiatives. The project also generated broader professional and research contributions, including presentations at internal and external conferences, a BMJ publicity piece, and manuscripts currently underway for several publications. Two abstracts have also been accepted at an OT conference.

Outputs

- Oral and poster presentations at SVHM's 2025 research week (Melbourne, August 2025)
- Poster presentation at the International Forum on Quality and Safety in Healthcare (Canberra, November 2025)
- Two abstracts accepted for the OT Exchange Conference (Brisbane, June 2026)
- Two publications as primary author underway; one publication as secondary author underway

Plans for Continued Activity

The final phase of the knowledge-translation strategy is ongoing, with plans to establish a quality-assurance process to support audit and feedback mechanisms, and to integrate the SMAF into standard operating procedures. Post-implementation data collection is scheduled for mid-year, enabling comparison of pre-, early- and post-implementation outcomes to assess the intervention's overall impact. Following completion of final data collection, a manuscript is planned to report on the knowledge-translation strategy and its effects on behavioural change.

Resulting Collaboration

This project involved collaboration between SVHM and two university partners, La Trobe University and the Australian Catholic University, who provided in-kind research supervision. This collaboration evolved over the course of the Fellowship to include input from a Latrobe University PhD candidate, increasing support for the various research activities. New networks were also built with the Austin Health and the Royal Melbourne Hospital's OT research leads who shared knowledge and resources that aided aspects of the intervention.

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