RESEARCH BRIEF

Health Research Board (HRB) Applied Partnership Award

Overview and findings of study on the implementation and sustainability of an integrated falls prevention pathway for older people

STUDY OVERVIEW

The aim of this project was to investigate the implementation and sustainability of the Cork Integrated Falls Prevention Pathway for community-dwelling older people, established in 2015 in Cork-Kerry Community Healthcare Organisation (CHO4). The research was conducted by health service researchers from University College Cork (UCC), together with stakeholders in the Health Service Executive (HSE) Services for Older People, local hospitals and community services in CHO4.

Funding for the study was provided through a **HRB Applied Partnership Award (APA)**, designed to bring knowledge users and academic researchers together to address a specific need within the Irish health or social care system.

This research project (2018-2021) was led by **Dr Sheena McHugh** from the School of Public Health at UCC. Post-doctoral researchers Dr Susan Calnan, Dr Caragh Flannery and Dr Rebecca Dennehy from UCC undertook the research for the study.

Dr Sheena McHugh, UCC

DETAILS OF FALLS PREVENTION PATHWAY

The Cork Integrated Falls Prevention Pathway comprises a continuum of services spanning primary and secondary care as well as community-based services as follows:

- Preliminary **screening** for falls incidence and risk in primary care (GPs and public health nurses)
- A **single point of referral** to the service managed by a dedicated falls coordinator
- Multifactorial **falls risk assessment clinics** delivered in primary care/healthcare centres
- **Specialist assessment** and treatment clinics delivered in a hospital setting
- **Consultant-led clinics** on falls-related issues (i.e. syncope and frailty)
- **Community exercise classes** to promote improved strength and balance
- **Rehabilitation** services delivered in clients' homes and provided by a multidisciplinary team (**CREST**)

The pathway is provided using both existing and new services in CHO4.

STUDY WORK PACKAGES

There were three work packages as follows:

- **Work package 1 (WP1)** investigated the delivery of evidence-based falls prevention interventions and services in the pathway to community-dwelling older people using 'process mapping';
- **Work package 2 (WP2)** examined the scalability (suitability for scaling up) of the integrated falls prevention pathway;
- **Work package 3 (WP3)** identified factors influencing the perceived acceptability, appropriateness and feasibility of implementing the falls risk assessment clinics among primary healthcare professionals.

WP1 – Study to investigate service delivery in pathway

Study overview: This study used an approach known as 'process mapping' to describe onward referral pathways following falls risk assessment. It also sought to examine whether the recommended follow-on interventions were received by older people after assessment.

What is process mapping?

Process mapping is a quality improvement tool that has been used extensively in service review and health planning. It captures the reality of health service processes, while highlighting variation barriers, gaps and potential duplication.

Methods: A mixed methods study design was used, involving focus groups with falls risk assessment teams and analysis of administrative data to estimate the level and type of onward referrals, and whether follow-on interventions were received by older people.

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WP1 RESULTS

- A total of **85 risk assessments** were completed across five falls risk assessment clinics in primary care (2018–2020).
- The average number of **risk factors** identified during assessment was 5.4 out of a maximum of 10 risk factors.
- Overall, 16.5% of clients (n=14) were identified as low risk, 54.1% (n=46) as medium risk and 29.4% (n=25) as high risk.
- Following assessment, clients (n=85) received an average of 3 **onward referrals**.
- All clinics had similar **onward referral options**; however, the way referrals were made to these services varied from **formal to informal**, e.g. explicit referral pathways, or using personal networks and in-house referral pathways, respectively.

CONCLUSION

- High levels of **missing data** made it difficult to fully assess whether interventions were delivered or not.
- Lack of an **integrated IT system** led to challenges in tracking patients across the integrated care pathway.
- **Standardised monitoring** across services on the pathway is needed to improve service delivery, along with a shared integrated IT system for managing and tracking follow-up care.
- Proper screening at the triage stage is key to prevent **inappropriate referrals**.
- Additional **skills** and **time** are needed to carry out the falls risk assessments.

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WP2 – Study to assess scalability of pathway

Study overview: This study aimed to assess the scalability of the integrated falls prevention service for community-dwelling older people. A secondary aim was to examine the feasibility and usefulness of applying the **Intervention Scalability Assessment Tool (ISAT)** – a new scalability tool comprising 10 domains for consideration prior to scaling up a service or innovation.

What is scalability?

Scalability is the ability of a health intervention shown to be efficacious on a small scale and/or under controlled conditions to be expanded under real world conditions to reach a greater proportion of the eligible population while retaining effectiveness.

METHODS

A number of steps was used in this study to assess the scalability of the falls pathway:

Step 1: Document analysis of existing evaluation data on service implementation, policy documents and falls-related literature

Step 2: One-to-one interviews with key stakeholders (n=11) involved in management and oversight of the service

Step 3: Online questionnaire with stakeholders (n=10) to rate scalability (using ISAT readiness assessment questions scored from 0 to 3) and provide feedback on reasons for their rating

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WP2 RESULTS

Figure 2 below shows the results of the scalability assessment for the integrated falls prevention pathway:

- Points on the outer part of the Figure indicate domains that received a higher score and which are supportive of scale-up;
- Points closer to the centre indicate weaker areas or those requiring further consideration.

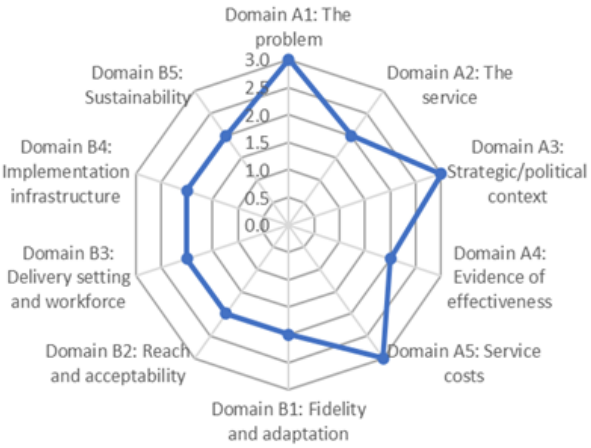

Figure: Radar plot of scalability assessment

DOMAINS IN SUPPORT OF SCALE UP

- The **problem** of falls among older people was considered of sufficient priority to warrant scale up.
- The pathway aligned with the **strategic/ health policy context** regarding the increased focus on falls prevention and on the integrated care model.
- Benefits of the service were perceived to outweigh potential **costs** given the significant costs related to falls, e.g. high cost of fractures.

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DOMAINS FOR CONSIDERATION BEFORE SCALE-UP

- The need for improved **resourcing** (e.g. healthcare professionals to run clinics, room space, parking)
- The need for an **integrated electronic patient management system** linking primary and secondary care services and to avoid duplication of services
- The gap in data on **effectiveness** of the service as it is currently operationalised
- The potential to expand **service reach** to those aged 50+ and need for additional components, e.g. bone health information, fracture liaison services

CONCLUSIONS

There is **limited evidence** to support scalability (suitability for scaling up) of this service in its current form due to the issues raised. The **ISAT** provides a systematic and structured framework for examining scalability, although the detailed and technical nature of its questions require considerable time and knowledge of the service to complete.

WP3 – Study to examine perceptions of delivering the assessment clinics

Study overview: This study aimed to examine factors influencing the perceived acceptability, appropriateness and feasibility of implementing the falls risk assessment clinics among primary healthcare professionals delivering the clinics.

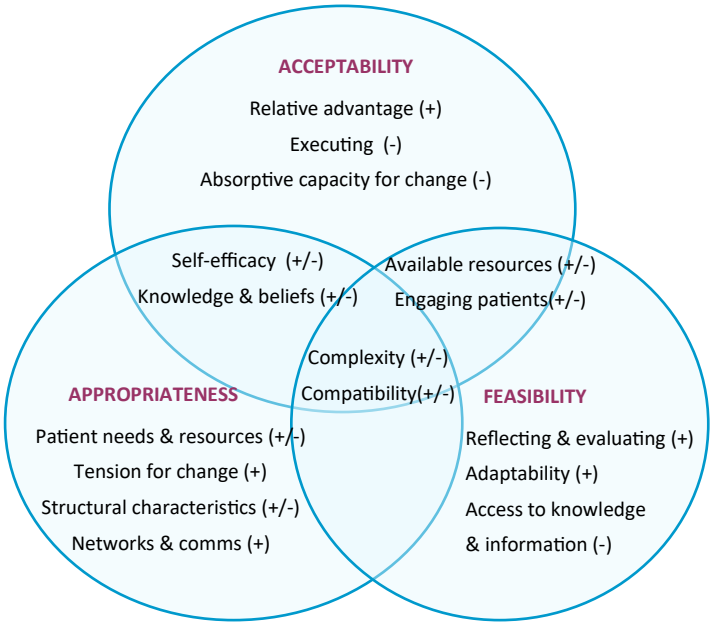
Acceptability, **appropriateness** and **feasibility** are deemed key 'implementation outcomes', defined as "the effects of deliberate and purposive actions to implement new treatments, practices and services" (Proctor, 2011) and indicators of implementation success.

METHODS

- One-to-one interviews (n = 24) were conducted with healthcare professionals (physiotherapists, occupational therapists, nurses) providing the clinics at four sites. Interviews were conducted at two timepoints: before commencement of the clinics and six months after commencement, between April 2016 and June 2017.
- The study used two popular implementation frameworks to guide the data collection and analysis: the Consolidated Framework for Implementation Research (CFIR) to categorise factors that influenced implementation and the Implementation Outcomes Framework (IOF) to define perceived acceptability, appropriateness and feasibility.

RESULTS

A range of factors, mapped to the CFIR taxonomy, influenced implementation outcomes – as shown in the Venn diagram below. Some factors influenced more than one outcome – e.g. available resources influenced both acceptability and feasibility. Relationships between determinants were also found: for example, complexity of the service in terms of its multidisciplinary scope reduced perceived self-efficacy for some professionals.



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WP3 RESULTS

- **Perceived acceptability** of the service was favourably influenced by the relative advantage of multidisciplinary working rather than working on one's own, but undermined by a lack of available resources (e.g. healthcare staff, room space) and 'do not attends' (DNAs) at the clinics.
- **Perceived appropriateness** of the service was enhanced by the strong perceived need for falls prevention services, co-location of healthcare professionals and compatibility with other services in the community (e.g. exercise classes), but diminished by complexity of the assessment and need for training in multi-disciplinary aspects.
- **Perceived feasibility** was positively influenced by provision of administrative support and flexibility to schedule the timing of clinics, but undermined by a lack of GP engagement (referring to the service) and potential to increase waiting lists for follow-on falls prevention interventions or treatment.
- **All three outcomes** were influenced by the complexity of the intervention (content, multidisciplinary scope, duration) and compatibility with existing workflows/systems and services.

CONCLUSIONS

The study highlights the importance of greater planning of resources at the pre-implementation stage (e.g. adequate staffing, appropriate physical and technological infrastructure) and ongoing training for primary healthcare professionals.

Issues such as DNAs and lack of GP referrals highlights the need to foster greater understanding and awareness of the service among both service users and potential referrers.

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KEY LEARNING

Based on the findings from this research project, a number of key learning points were identified:

- **Need for pre-implementation planning and preparation** – designating sufficient resources early on is crucial, including healthcare professionals with protected time to deliver the service and adequate/appropriate room space for assessment clinics. Provision of administrative support and appointing a dedicated falls coordinator are elements worth maintaining in future iterations.
- **Importance of developing integrated IT infrastructure** – establishing an integrated electronic patient management system linking primary and secondary care services is critical to facilitate the service and to avoid duplication of services.
- **Need for proactive and ongoing engagement with key stakeholders** – engagement with GPs and service users is paramount to ensure referrals to the service and attendance. This includes raising awareness of the service and explaining the rationale for and benefits of the service.
- **Importance of fostering team-building to support multidisciplinary teams** – ensuring a greater focus on team-building skills in training provision is also important to support multidisciplinary working and encourage buy-in among healthcare professionals.

Further information

Further information on the study can be found at:
https://www.ucc.ie/en/implementation-research/projects/fallspreventionproject/

Or please email **Dr Sheena McHugh**, Principal Investigator at: S.McHugh@ucc.ie

Images: Flaticon.com

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