



RESEARCH BRIEF

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Evaluating the implementation process and health and cost outcomes of a multi-disciplinary care model for identifying and managing frailty among older adults in the community: A study protocol

Research article: Protocol for a mixed-methods and multi-site assessment of the implementation process and outcomes of a new community-based frailty programme. *Published in BMC Geriatrics in July 2022. Click [here](#) to view the published article online.*

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KEY FINDINGS

1. Geriatric Service Hub (GSH) is a novel multi-disciplinary care model that adopted a collaborative approach bringing together different healthcare service providers for early identification and delivery of targeted interventions for frail community-dwelling older adults in Singapore.
2. Given that the GSH is a complex intervention with multiple interacting components, a mixed-methods approach will be employed to provide information on its implementability and effectiveness, which can support programme planners and policymakers in their decision-making.

IMPLICATIONS AND SIGNIFICANCE OF FINDINGS

1. Frailty compromises older adults' ability to cope with daily or acute stressors but can be managed and even reversed.
2. GSH is a multi-disciplinary care model to identify and manage frailty in community-dwelling older adults that was piloted by five hospitals, with each hospital adapting the model to develop their own community-based programme alongside community-based partners.
3. All GSH sites offer a range of medical, social, and other services, which should increase the use of appropriate services and lead to benefits such as improved health outcomes, improved patient satisfaction and engagement, along with reductions in emergency hospitalisation and nursing home admission.
4. Evaluation findings will provide information on each site's programme effect on patients' health outcomes, along with the programme's cost-utilisation and replicability at other future sites.
5. Insights gained from this study will be disseminated to programme planners, implementers as well as policymakers to support the development and decision-making of similar initiatives in the future.

BACKGROUND

In Singapore, frailty prevalence among community-dwelling older adults ranges from 5.7% to 6.2%, with another 37% to 46% classified as prefrail. Managing frailty requires a comprehensive care model, such as the GSH programme, which identifies frail older adults through quick screening, before referring them for comprehensive geriatric assessments (CGAs). Multi-disciplinary meetings use CGA results to develop individualised care plans, followed by referrals to frailty-related services and care coordination to facilitate the utilisation of these services.

However, there is limited evidence on the effects of these care models on healthcare cost and health outcomes for frail older adults in Singapore. Most successful implementation evidence comes from Western settings, which may not be transferable locally. Therefore, evaluating the implementation and effectiveness of the GSH care model is essential to collect localised data that can aid programme planners, implementers, and policymakers.

FOCUS OF PROJECT

The aim of this study was to assess factors influencing the implementation of the GSH programme, evaluate its effects on patients' health outcomes and quality of life, and examine its impact on healthcare utilisation and cost. The findings will contribute to the understanding of implementation considerations for complex interventions, as well as the effectiveness of the GSH care model.

PARTICIPANTS

Participants would be older adults referred to any of the five pilot hospitals, including Alexandra Hospital, Changi General Hospital, Ng Teng Fong General Hospital, Sengkang General Hospital, and Singapore General Hospital. They must be at least 65 years old and have a Clinical Frailty Score between 4-7.

STUDY DESIGN

The study will adopt a mixed-methods approach. Interviews and focus group discussions with relevant stakeholders will be conducted to understand the development and implementation of the GSH programme at each site. A pre-test and post-test design will be used to analyse the quantitative data on participants' demographic and health outcomes, such as quality of life. A retrospective cohort design with propensity score-matched comparators will be used to analyse the quantitative data on healthcare utilisation and cost.

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