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Stakeholder perspectives on selecting falls prevention programmes in Brunei Darussalam: A qualitative study

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Original article

Abstract

Background: Falls are a major contributor to morbidity, disability, and loss of independence among older adults. Although several evidence-based falls prevention programmes have demonstrated effectiveness, decisions about which programmes to implement in practice should take into account feasibility, accessibility, and local context. Understanding the perspectives of key stakeholders is necessary to inform programme selection and implementation.

Methods: This qualitative descriptive study explored the perspectives of two key stakeholders, community-dwelling older adults and allied health professionals, regarding falls prevention programmes in Brunei Darussalam. Focus group discussions were conducted with older adults (n = 15), and semi-structured individual interviews with allied health professionals (n = 6). Participants discussed three established falls prevention programmes: the Otago Exercise Programme, Stepping On, and Lifestyle-integrated Functional Exercise. Data were analysed using reflexive thematic analysis.

Results: Four interrelated themes were identified. Older adults expressed agreement regarding the importance of reducing falls risk and supported initiatives to introduce falls prevention programmes, focusing primarily on accessibility rather than differentiating between specific interventions. In contrast, allied health professionals engaged more critically regarding programme delivery and sustainability. They expressed a conceptual preference for Stepping On, while considering how delivery could be adapted to local settings. Across both groups, the need for contextual and cultural adaptation emerged as a shared priority.

Conclusions: Stakeholder perspectives highlighted that programme preference was shaped less by intervention content or evidence base and more by feasibility, accessibility, and system fit. Integrating older adults' and allied health professionals' perspectives may enhance uptake, acceptability, and sustainability of fall prevention initiatives.

Keywords

- allied health professionals
- fall prevention
- older adults
- qualitative research
- stakeholder perspectives

Contribution

A – Preparation of the research project
B – Assembly of data
C – Conducting of statistical analysis
D – Interpretation of results
E – Manuscript preparation
F – Literature review
G – Revising the manuscript

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Introduction

Falls represent a major public health concern in ageing societies, contributing substantially to morbidity, disability, institutionalisation, and mortality among older adults. Approximately one-third of community-dwelling adults aged 65 years and older experience at least one fall each year, with a significant proportion causing injury, fear of falling, functional decline, and reduced quality of life.[1] Beyond physical injury, falls are also associated with psychological distress, activity restriction, and social isolation.[2]

A range of evidence-based falls prevention programmes have been developed and implemented internationally.[3] Interventions such as the Otago Exercise Programme (OEP), Stepping On, and Lifestyle-integrated Functional Exercise (LiFE) have demonstrated meaningful reductions in fall rates by approximately one-third.[4] These programmes share common goals of improving strength, balance, and confidence with mobility. All require an element of individualisation and progression over time.[5] However, there are important differences in delivery format, professional involvement, and degree of individualisation.

The Otago Exercise Programme is a home-based intervention focusing on progressive strength and balance exercises, typically delivered through individualised sessions.[6] Stepping On is a group-based programme combining exercise, education, and peer discussion to enhance self-efficacy and awareness of fall risk.[7] In contrast, the LiFE programme embeds strength and balance activities into everyday routines, emphasising habit formation rather than structured exercise sessions.[8] These differences have important implications for feasibility, acceptability, and sustainability when programmes are translated into diverse health system contexts.

While the effectiveness of these programmes is well established, less attention has been paid to how health systems, particularly small or resource-constrained systems, decide which programme to implement. In such contexts, programme selection must balance evidence of effectiveness with practical considerations including workforce capacity, training requirements, service delivery models, and cultural acceptability.[9] Stakeholder engagement is therefore increasingly recognised as a critical component of implementation planning.

Brunei Darussalam, a small Southeast Asian nation of around 450,000 people, is experiencing a rapid increase in its ageing population.[10] A recent survey conducted among older adults attending Brunei's senior citizen activity centres found that 19.6% had fallen within the previous 12 months and 59.8% were identified as being at risk of falls, highlighting the relevance of implementing evidence-based falls prevention programmes within this setting.[11] At present, there is no structured, nationally implemented falls prevention programme. As these three fall prevention programmes of interest have similar efficacy, an understanding of how older adults and allied health professionals (AHPs) perceive these programmes is an important step in informing feasible and contextually appropriate programme selection. This study aimed to explore stakeholder perspectives on three established falls prevention programmes to inform implementation planning within Brunei's healthcare system.

Methods

Study design

This study employed a qualitative descriptive design to explore stakeholder perspectives on falls prevention programmes in Brunei Darussalam.

Participants and setting

Participants included community-dwelling older adults aged 60 years and above and AHPs working within the public healthcare system. Older adults were recruited from an activity centre for older people in Tutong district, while AHPs were recruited from the main tertiary hospital. The allied health professional participants comprised physiotherapists and occupational therapists directly involved in the assessment and rehabilitation of older adults within the public healthcare system. Purposive sampling was used to capture perspectives relevant to falls prevention and programme implementation.

Data collection

Data were collected between October 2020 and March 2021 using group-based qualitative approaches tailored to each stakeholder group. For older adults, a structured engagement session was conducted, where participants were provided with an overview of falls risk and falls prevention, followed by a presentation outlining the purpose, format and activities involved in the three programmes: OEP, Stepping on, and LiFE. Following this, focus group discussions were facilitated

to explore participants' perceptions of falls prevention, views on the proposed programmes, and considerations for acceptability and participation.

The presentations were standardised across all sessions and were designed to provide participants with a comparable understanding of the three evidence-based falls prevention programmes before discussions commenced. The educational sessions described the aims, core components, mode of delivery, and expected participant involvement for each programme but did not advocate for any particular intervention. This approach was adopted because none of the participants had previous experience with these programmes.

For AHPs, a continuing medical education (CME) session on falls prevention was conducted, during which the same three programmes were introduced. The programme manuals were provided to the physiotherapy and occupational therapy departments, and participants were given two weeks to review the materials. Semi-structured individual interviews were then conducted to allow in-depth exploration of implementation considerations and professional perspectives, including programme content, feasibility, delivery models, and how these could be integrated within the local health system.

All group discussions and interviews were audio-recorded and transcribed verbatim for analysis.

Data analysis

Data were analysed using reflexive thematic analysis following the six phases described by Braun and Clarke.[12] Initially, transcripts were read repeatedly to achieve familiarisation with the data. Initial codes were generated inductively from meaningful segments of text relating to perceptions of falls prevention programmes. Similar codes were grouped into broader categories before candidate themes were iteratively reviewed, refined and defined. The final themes were developed through repeated comparison across transcripts to ensure they accurately reflected participants' experiences.

Coding was initially undertaken by the first author, with regular discussion among the research team to review code definitions, theme development and interpretation. Differences in interpretation were resolved through discussion until consensus was reached. Trustworthiness was enhanced through investigator triangulation, maintenance of an audit trail documenting analytical decisions, and regular peer debriefing among researchers with expertise in geriatric medicine, rehabilitation and qualitative research.

Ethical considerations

Ethical approval was obtained from the Institute of Health Sciences Research Ethics Committee (IHSREC), Universiti Brunei Darussalam, and the Medical and Health Research Ethics Committee (MHREC), Ministry of Health, Brunei Darussalam. Written informed consent was obtained from all participants, and confidentiality was maintained throughout the study.

Results

A total of 21 participants took part in the study, comprising 15 community-dwelling older adults who participated in focus group discussions and six AHPs (two physiotherapists and four occupational therapists) who participated in individual interviews. Thematic analysis identified four interrelated themes describing how participants understood falls risk and evaluated the three established falls prevention programmes (OEP, Stepping On, and LiFE) in relation to acceptability, feasibility, and local service context. While both groups recognised the importance of falls prevention, differing emphasis emerged across the themes.

Theme 1: Shared recognition of falls risk and the importance of prevention

Older adults frequently described falls as an issue in later life. Their accounts linked falls to declining physical strength, reduced vision, environmental hazards, and occasional lapses in attention, often drawing on personal experience or observations of peers.

> I fall mainly because of my poor vision. In places which are poorly lit, it's not as clear. If I can't see well, I fall easily. (P6)

The older adults consistently agreed that reducing falls risk was important. However, their responses were not framed around comparing different programmes, but rather around the hope that something practical would be provided to help them remain safe.

> What is important for us is there is a programme to reduce falling. We want to know what to do, and how it can help us. (P4)

The AHPs viewed falls as preventable and multifactorial, drawing on clinical experience to emphasise environmental hazards, medication effects, balance impairment, and ageing-related functional decline.

> In my experience, falls are never just one thing. It's usually a combination of factors; environment, medication, balance, strength. So prevention is really important. (A1)

This shared understanding of falls risk formed a common foundation for engagement with all three falls prevention programmes.

Theme 2: Older adults' acceptance of falls prevention programmes without strong differentiation

Older adults expressed generally positive attitudes toward falls prevention initiatives and appreciation that such programmes were being considered. Rather than weighing the relative merits of specific interventions, participants tended to respond at a conceptual level, agreeing that any effort to prevent falls would be beneficial.

> All the programmes shared today all look good. For us, what is important is there is effort made to reduce us falling. (P4)

Some older adults commented on delivery format in broad terms. Group-based programmes were perceived as potentially enjoyable due to opportunities for social interaction, while individualised approaches were considered useful for those with difficulties accessing group programmes. However, these comments did not amount to strong preferences.

> We will just do what (programme) is prepared for us. If it is good for our health, and it will reduce falls, we are willing to try it. (P1)

Overall, discussions involving older adults focused less on programme-specific pros and cons and more on whether programmes would be available, accessible, and easy to participate in.

Theme 3: Allied health professionals' preference shaped by implementation and delivery considerations

AHPs engaged in detailed comparisons of the three programmes, focusing on how each could realistically be implemented within existing service structures. Many AHPs expressed a conceptual preference for Stepping On, highlighting its group-based format, educational content, and emphasis on self-efficacy.

> *Stepping on* isn't just about exercise. It provides education, discussions and awareness. That's important so that older people understand why they fall and what they can do about it. (AHP3)

The discussions also demonstrated active problem-solving on how to realistically deliver the programme. Several AHPs discussed whether Stepping On could be delivered through shared facilitation, with different professionals contributing to different sessions so that no single provider carried the full workload.

> It will be a heavy workload if just one person runs all sessions. But if we divide them out, OT, physio, pharmacy, and we each cover our own topic, I think that would be more practical. (AHP4)

The OEP was familiar among some AHPs and regarded as clinically robust and effective for addressing strength and balance. However, the individualised, home-based delivery raised concerns about time demands and manpower.

> The Otago Exercise Programme is definitely proven. But because it is one-to-one and home visits, it will take up lots of time, including travelling. From the manpower perspective, it will be challenging. (AHP1)

However, the same AHP acknowledged the importance of building rapport, follow-up and continuity throughout a programme.

> The advantage is it's one-to-one. You would know the patient you personally supported during that period. It's the same therapist or same trainers going through and the same patient. That is a big plus. (AHP1)

LiFE was perceived as flexible and adaptable, and seemed intuitive for the occupational therapists, as exercises could be incorporated into daily routines. However, it was discussed less frequently in relation to implementation and delivery, compared to the other two programmes.

Theme 4: Importance of accessibility, context, and cultural fit

Across both participant groups, there was strong agreement that successful implementation would depend on how well programmes were adapted to local context. Older adults emphasised the importance of familiar and accessible venues, such as activity centres, which were perceived as convenient and encouraging participation.

> We are already used to coming here. Just do it here. It will be easier to join the programme. (P12)

There were concerns about time commitment and travel to another venue, particularly if the programme required frequent sessions or attendance at unfamiliar locations.

> If we have to meet up many times, or its far away, it may be hard for us to arrange our schedule. (P11)

Allied health professionals identified the need for contextual adaptation, mentioning the need to individualise or make it relevant to each client. From previous experience, some AHPs also mentioned that programmes from other countries usually require some changes before local implementation.

> With Stepping On, the content seems generic. But you can't assume everyone has the same issues. (AHP5)

> These programmes are good, but it needs to be relevant to our culture and our lifestyle. Otherwise, it will be difficult to sustain. (AHP2)

LiFE was described as inherently adaptable due to its routine-based approach, while Stepping On was viewed as adaptable through tailoring the set educational session content to local settings. Regardless of the programme, participants emphasised that clarity, cultural relevance, and continuity of support would be essential for sustained engagement.

Comparative summary of stakeholder perspectives

Taken together, the findings illustrate complementary but distinct perspectives. Older adults expressed gratitude for falls prevention initiatives without strongly differentiating between interventions. They focused primarily on whether programmes would reach them, be accessible, and fit within their daily lives. Allied health professionals shared a conceptual preference for Stepping On and engaged actively in troubleshooting delivery models, such as shared facilitation to enhance feasibility and sustainability. Rather than identifying a single preferred programme, stakeholders highlighted the importance of aligning programme delivery with both service capacity and older adults' practical needs.

Discussion

This study highlights the value of seeking input from relevant stakeholders, including older adults and allied health professionals when planning falls prevention initiatives in ageing societies. Older adults approached falls prevention from a standpoint of willingness to participate and how to access them, while allied health professionals engaged more critically with questions of feasibility, delivery, and sustainability. Although programme efficacy and resource requirements are important considerations in programme selection, all three programmes (OEP, Stepping On, and LiFE) have comparable reductions in fall risk. In addition, implementing these programmes requires broadly similar resources, including trained therapists, dedicated manpower and time, venue, financial and management support, printed information for participants, and collaboration among stakeholders.[13] In this study, hearing both perspectives provided a more complete understanding of how evidence-based interventions can be translated into practice. These findings demonstrate that stakeholder engagement contributes insights beyond identifying a preferred intervention. By bringing together the perspectives of intended programme recipients and healthcare providers, implementation planning can better anticipate barriers to uptake, delivery and long-term sustainability.

Older adults did not strongly differentiate between the OEP, Stepping On, and LiFE but rather centred on whether programmes would reach them, be delivered in familiar settings, and fit within their daily lives. These responses should not be interpreted as lack of engagement in the discussions related to the selection process. Rather, older adults articulated practical, experience-based recommendations regarding location, session frequency, and access that delineated the conditions under which any programme would be acceptable and sustainable. They were also receptive to the potential benefits of such programmes, compared to some settings which required more buy-in from older people.[14] This finding is consistent with previous qualitative studies demonstrating that older adults often prioritise convenience, accessibility, opportunities for social interaction, and confidence in programme providers over the specific exercise content or delivery model.[14] Such preferences suggest that successful implementation depends not only on programme effectiveness but also on how well interventions fit within the everyday lives of older adults.

AHPs demonstrated a conceptual preference for Stepping On, valuing its educational content and group-based format. This preference was shaped by consideration of delivery models rather than uncritical endorsement. Similar to other settings, the AHPs in Brunei mentioned the main barriers to implementing fall prevention programmes were time and manpower

constraints.[15] However, discussions focused on how facilitation could be shared across professionals to distribute workload while maintaining programme integrity, which reflects readiness for implementation within existing constraints. These implementation challenges are consistent with qualitative studies from community rehabilitation settings internationally, where workforce shortages, limited clinical time, and competing service priorities have been identified as major barriers to delivering evidence-based falls prevention programmes.[15] Shared multidisciplinary delivery models have therefore been proposed as practical strategies to improve sustainability while maintaining programme fidelity.

Across both groups, programme preference was shaped less by detailed consideration of intervention content or evidence base and more by perceptions of feasibility, accessibility, and system fit. These findings align with international literature emphasising that acceptability, feasibility and contextual adaptation are central to implementation success, particularly in resource-limited settings.[16] Rather than identifying a single preferred programme, this study demonstrates that stakeholder perspectives are complementary and role-dependent. Older adults prioritised reach and accessibility, while allied health professionals focused on sustainability and delivery. Integrating both perspectives may enhance uptake, acceptability, and long-term viability of falls prevention initiatives. Although this study was conducted in Brunei Darussalam, these findings are consistent with implementation research from other resource-constrained settings, where programme adaptation is often necessary to accommodate local healthcare systems, cultural expectations, and available workforce. Rather than representing a compromise, context-sensitive adaptation is increasingly recognised as an essential component of successful implementation, provided that the core evidence-based elements of the intervention are preserved.

Importantly, such integration does not preclude adaptation of established programmes, but it does underscore the need for evaluating effectiveness. For example, a study showed that the OEP run as group sessions achieves comparable outcomes to individually delivered sessions, supporting some flexibility in implementation.[17] However, adaptations should be empirically tested to ensure programme effectiveness is maintained within the local context. This was demonstrated in a systematic review of the OEP in Southeast Asia, where all three studies modified the programme, resulting in limited efficacy or reduced fall rates.[18]

Limitations

Several limitations should be acknowledged. First, although appropriate for qualitative inquiry, the relatively small sample size may not capture the full range of stakeholder perspectives. Second, participants were recruited from a single older adult activity centre and one tertiary hospital, introducing the possibility of selection bias and limiting transferability to other settings. Detailed demographic characteristics of participants beyond the study eligibility criteria (such as age, sex and years of professional experience) were not collected, precluding exploration of whether perspectives differed according to participant characteristics. However, participants were recruited from established community and healthcare settings serving older adults and professionals involved in falls prevention. Third, participants evaluated the three falls prevention programmes following structured educational sessions rather than direct participation in programme delivery. Although standardised presentations were used to ensure comparable understanding across participants, these sessions may have influenced perceptions of programme acceptability. Finally, the findings reflect the organisation of Brunei Darussalam's healthcare system and may not be directly generalisable to countries with different workforce structures, funding arrangements or healthcare delivery models. Future implementation studies involving pilot programme delivery would provide valuable insight into stakeholder experiences following direct participation.

Implications for practice and policy

Falls prevention initiatives should be designed with explicit attention to both service feasibility and end-user reach. Group-based programmes such as Stepping On may benefit from distributed facilitation models that share responsibility across physiotherapists, occupational therapists, pharmacists and other health professionals, thereby reducing workload while preserving programme quality. Community activity centres already attended by older adults represent practical delivery venues that may minimise transport barriers and improve participation.

For policymakers, stakeholder feedback should inform programme adaptation before national implementation. Workforce planning should incorporate multidisciplinary collaboration, training requirements and protected time for programme delivery. Pilot implementation with evaluation of participant outcomes,

implementation fidelity, acceptability and cost-effectiveness would support evidence-informed scale-up within Brunei Darussalam.

Conclusion

This study demonstrates the importance of hearing both older adults' and allied health professionals' voices when selecting and implementing falls prevention programmes. These perspectives suggest that successful falls prevention depends not on identifying a single optimal programme, but on aligning programme choice and delivery with local health system capacity, available workforce, cultural context, and the lived experiences of older adults. Early stakeholder engagement should therefore be regarded as an essential component of implementation planning for evidence-based falls prevention programmes.

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References

[1] Rubenstein LZ. Falls in older people: Epidemiology, risk factors and strategies for prevention. *Age Ageing*. 2006;35(suppl 2):ii37-ii41. doi: 10.1093/ageing/afl084

[2] Moylan KC, Binder EF. Falls in older adults: Risk assessment, management and prevention. *Am J Med*. 2007;120(6):493.e1-493.e6. doi: 10.1016/j.amjmed.2006.07.022.

[3] Sherrington C, Tiedemann A, Fairhall N, Close JC, Lord SR. Exercise to prevent falls in older adults: An updated meta-analysis and best practice recommendations. *N S W Public Health Bull*. 2011;22(4):78. doi: 10.1071/nb10056.

[4] Pillay J, Gaudet LA, Saba S, et al. Falls prevention interventions for community-dwelling older adults: Systematic review and meta-analysis of benefits, harms, and patient values and preferences. *Syst Rev*. 2024;13(1):289. doi: 10.1186/s13643-024-02681-3.

[5] Gardner MM. Practical implementation of an exercise-based falls prevention programme. *Age Ageing*. 2001;30(1):77-83. doi: 10.1093/ageing/30.1.77.

[6] Davis JC, Robertson MC, Ashe MC, Liu-Ambrose T, Khan KM, Marra CA. Does a home-based strength and balance programme in people aged ≥80 years provide the best value for money to prevent falls? A systematic review of economic evaluations of falls prevention interventions. *Br J Sports Med*. 2010;44(2):80-89. doi: 10.1136/bjsm.2008.060988.

[7] Clemson L, Cumming RG, Kendig H, Swann M, Heard R, Taylor K. The effectiveness of a community-based program for reducing the incidence of falls in the elderly: A randomized trial. *J Am Geriatr Soc*. 2004;52(9):1487-1494. doi: 10.1111/j.1532-5415.2004.52411.x.

[8] Clemson L, Singh MAF, Bundy A, et al. Integration of balance and strength training into daily life activity to reduce rate of falls in older people (the LiFE study): Randomized parallel trial. *BMJ*. 2012;345:e4547. doi: 10.1136/bmj.e4547.

[9] Hanson H, Salmoni A. Stakeholders' perceptions of programme sustainability: Findings from a community-based fall prevention programme. *Public Health*. 2011;125(8):525-532. doi: 10.1016/j.puhe.2011.03.003.

[10] Teo SP. Geriatrics inpatients in RIPAS Hospital, Brunei: Patient characteristics and rehabilitation needs. *J Clin Gerontol Geriatr*. 2018;9(2):52-59. doi: 10.24816/jcgg.2018.v9i2.04.

[11] Asrul Azmi MAW, Husaini A, Teo SP, Abdul Rahman H, Idris F. Physical and balance activity, mobility status and risk of falls among older people in Brunei Darussalam. *Asian J Med Health Sci*. 2026;9(1):277-290. doi: 10.70672/vkx0k048.

[12] Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol*. 2006;3(2):77-101. doi: 10.1191/1478088706qp063oa.

[13] Lovarini M, Clemson L, Dean C. Sustainability of community-based fall prevention programs: A systematic review. J Safety Res. 2013;47:9-17. doi: 10.1016/j.jsr.2013.08.004.

[14] Yardley L, Bishop FL, Beyer N, et al. Older people's views of falls prevention interventions in six European countries. *Gerontologist*. 2006;46(5):650-660. doi: 10.1093/geront/46.5.650.

[15] Van Rhyn B, Barwick A. Health practitioners' perceptions of falls and fall prevention in older people: A metasynthesis. *Qual Health Res*. 2018;29(1):69-79. doi: 10.1177/1049732318805753.

[16] Marquez-Doren F, Lucchini-Raies C, Alcayaga C, Bustamante C, González-Agüero M. Acceptability and feasibility of a comprehensive fall prevention model for independent older adults: A qualitative evaluation. *Int J Nurs Stud Adv*. 2024;7:100220. doi: 10.1016/j.ijnsa.2024.100220

[17] Albornos-Muñoz L, Blanco-Blanco J, Cidoncha-Moreno MÁ, et al. Efficacy of the Otago exercise programme to reduce falls in community-dwelling adults aged 65–80 when delivered as group or individual training: Non-inferiority clinical trial. *BMC Nurs*. 2024;23(1):705. doi: 10.1186/s12912-024-02310-3.

[18] Johar AA, Husaini A, Teo SP. Effectiveness of the Otago exercise programme in falls reduction among community-dwelling older people in Southeast Asia: A systematic review. *Philipp J Intern Med*. 2021;59:133-136.