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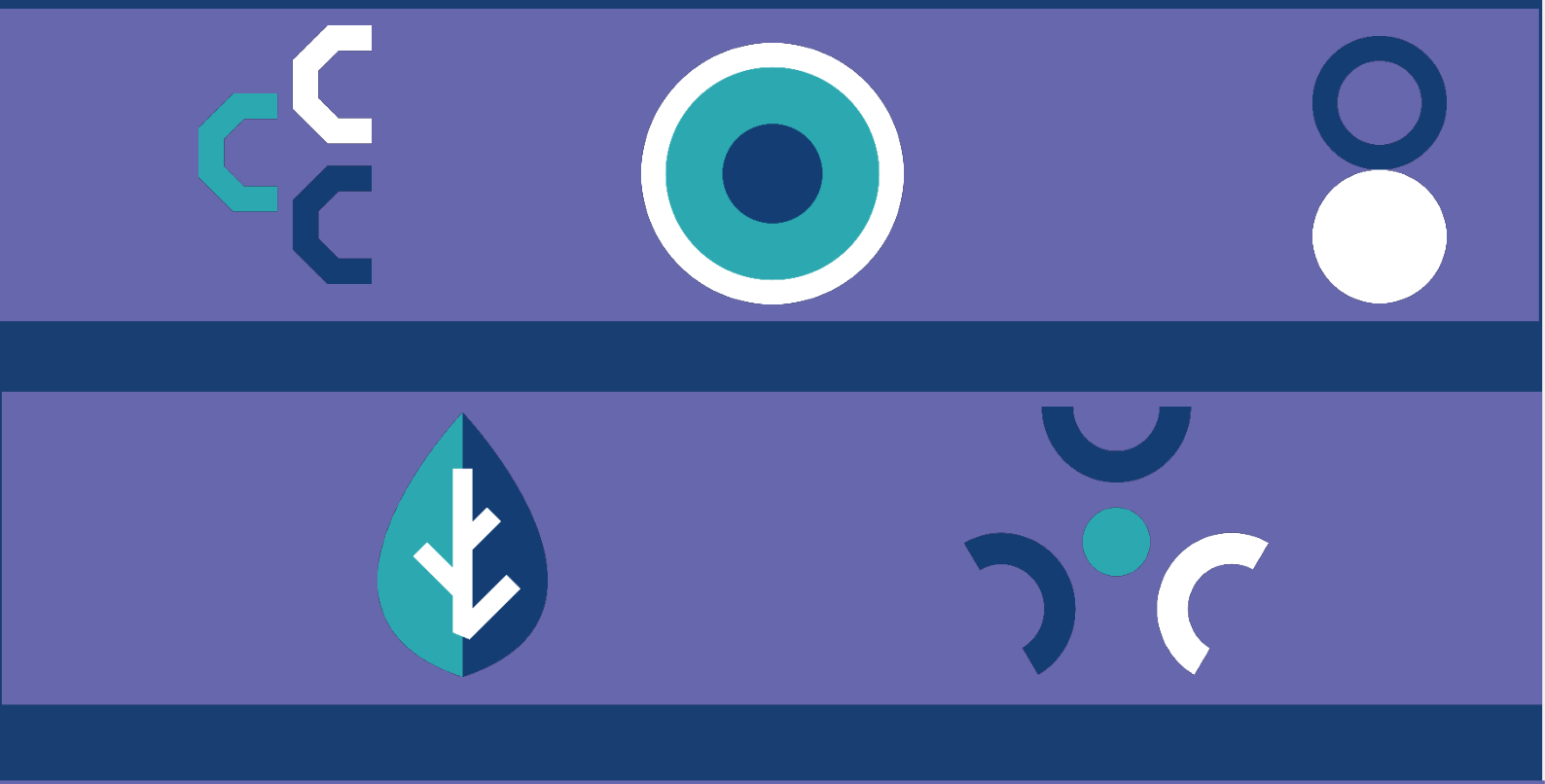
Hampshire Steady and Strong Falls-Prevention Dance Programme Evaluation



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Executive Summary

Background

Falls present a significant public health concern in older adults, potentially leading to personal injury and distress. As the third most populous county, with a large older population, falls prevention is a priority for Hampshire County Council (HCC). HCC's Public Health team supports a network of independent and leisure centre-based falls prevention instructors to deliver the Steady and Strong (S&S) programme, which aims to reduce the rate of falls across the county by improving strength and balance through evidence-based falls prevention exercise programmes, including the Otago Exercise Programme (OEP). This is facilitated through support for training costs, pump priming funds, communication and marketing support, and continued professional development. In January 2023, HCC commissioned the development of a training curriculum integrating the OEP into dance choreography (S&S Dance) and formalised the training requirements and eligibility criteria for instructors to deliver this class. Training in the S&S to Music programme was also offered to instructors who were not eligible to receive S&S Dance training.

This evaluation aimed to understand the effectiveness of the newly developed S&S Dance exercise programme at improving functional fitness (i.e. strength and balance) as proxy measures for falls risk, when compared to S&S to Music and the OEP. Broader aims included understanding the acceptability of the programmes to participants alongside factors that impact implementation. Nested within the RE-AIM framework (1), our research questions explored six key concepts (of which four were derived from RE-AIM domains):

1. **Reach:** Who takes part in the programmes? How many people attend and do the programmes reach different populations?
2. **Effectiveness:** Does S&S Dance improve functional fitness? Are the outcomes of the newly delivered programmes comparable to S&S to Music and standard OEP?
3. **Acceptability:** What are class participants' perceptions of the programmes? What are some of the reasons for dropout?
4. **Implementation – Fidelity:** What is delivered as part of the S&S Dance curriculum and is it delivered as intended?
5. **Implementation – Maintenance:** What is required to deliver the S&S Dance training and classes (by HCC), and is this sustainable? What is required of instructors to deliver the programmes (all types) and is this sustainable?
6. **Cost analysis:** How much did it cost HCC to design and deliver the S&S Dance? How much does it cost instructors to deliver all programmes?

Methods

This evaluation used a **prospective observational design** to collect functional data at baseline, 12- and 24-weeks across all three programmes (S&S Dance, S&S to Music, OEP). A **mixed methods process evaluation** was used to explore acceptability of all programmes to class participants, instructor fidelity to the S&S Dance training curriculum, and implementation and sustainability of the programmes. Data collection occurred through fidelity observations of the S&S Dance instructors and qualitative interviews with class participants, instructors, and HCC staff members involved in developing the S&S Dance curricula. Data were collected for the costs associated with developing and delivering the S&S Dance (HCC), and the costs of delivering all programmes in the community (instructors).

Results

Reach

Eight instructors established and delivered 12 S&S Dance classes following the training. In total, nine instructors participated in the evaluation: five who delivered the S&S Dance only, two who delivered the OEP only, and two who delivered all three programmes. Data were collected from 11 separate classes, n=3 OEP, n=1 S&S to Music, and n=7 S&S Dance. We recruited a total of 65 class participants, with n=50 from the S&S

Dance, n=4 from the S&S to Music, and n=11 from the OEP. Across all programmes, the majority of class participants were White (92.3%), female (90.8%), and from areas of greater affluence (60% from least deprived quintile). This aligns with Hampshire census data (92.6% White) and reflects socioeconomic levels across the county; Hampshire is one of the lesser deprived higher tier local authorities in England (16/151). However, certain parts of the county demonstrate greater ethnic and socioeconomic diversity which was not reflected in the data collection. Demographic differences were not observed between programmes, although those in the OEP had significantly higher rates of disability in daily activity and falls in the past three months.

Effectiveness

Given small sample sizes, prospective analyses were only conducted for S&S Dance. N=50 participants provided baseline data, n=39 provided 12-week data, and n=20 completed all three timepoints (24-weeks). For those providing 24-week data (n=20), repeated measures tests showed significant improvements in all functional measures of strength and balance (Sit to Stand, Turn180, Timed Up and Go) from baseline to 24-weeks. Significant improvements were observed in balance confidence (CONFBal) and loneliness (UCLA) was significantly reduced. No significant differences were observed between those who attended and did not attend up to 24-weeks for most variables, however, a significantly higher proportion of those who did not attend up to 24-weeks reported limits to their daily activities (27.3% vs. 72.7%). Small numbers of participants were recruited to the evaluation, particularly from the OEP and S&S to Music programmes. This meant comparisons between the programmes were not feasible.

Acceptability

All programmes (OEP, S&S to Music, and S&S Dance) were well-received by class participants, with the dance element of the S&S Dance acting as a draw for many. Unlike the other programmes, motivations to participate in the S&S Dance were related to sustaining current fitness levels rather than falls prevention. The social element of the programmes and instructor rapport helped to maintain attendance. Although class participants perceived the classes to be costly, they were also considered good value.

Implementation - Fidelity to S&S Dance curriculum

Most S&S Dance instructors delivered content with fidelity across the core OEP components (i.e. warm-up, strength, balance). Over 80% of instructors met fidelity for the strength component, but lower fidelity was observed for the cool-down component (50%). Instructors less consistently offered exercise alternatives and progressions, but were good communicators. Greater clarity on how to integrate the OEP exercises into dance choreography was requested by instructors, which could be supported by accessible continuing professional development (CPD) and a formal community of practice.

Implementation – Maintenance

HCC found that developing a complex intervention (S&S Dance) required effective and sustained communication, a large time commitment, but were happy with the final curriculum. Instructors were positive about the creative day training, although improvements were suggested including offering example syllabi, peer observation, and encouraging pre-preparation of a session plan for feedback during the training. Instructors felt ongoing CPD would be important to reinforce learnings and that peer support was key to class set-up. Important factors to sustaining the classes included the need for ongoing financial and marketing support from the council and building supportive networks. Rising hall hire and music license costs created a tension between retaining low class prices and instructor income. Data collection and feedback motivated class participants to continue attending, although instructors were unsure how to continue collecting data post-evaluation.

Cost analysis

Setup and delivery of the S&S Dance required high time commitment and financial investment from HCC (including curriculum development costs), meaning the cost of training eight instructors to deliver 12 classes

(i.e. one session per week for 24-weeks) was high (£1100.28 per class). However, the cost of maintaining each class per year was low (£38.28) and these costs were incrementally reduced as the number of classes delivered by an instructor increased, encouraging investment in existing structures. Instructor hourly income was below previously reported rates, particularly as some instructors included 'social time' following class and had experienced rising hall hire costs. Income increased incrementally as the number of classes delivered per instructor increased. Delivery of the S&S Dance classes had unforeseen costs, including expensive music licensing, with instructors feeling that they would likely have to increase the price per session for class participants to meet these costs.

Discussion and recommendations

The S&S Dance class is well-received and effective at improving functional measures of strength balance, increasing confidence, and reducing loneliness, although small sample sizes limited comparisons to established falls prevention programmes. Attendees were predominantly from White and affluent backgrounds, which aligns with census data breakdowns but does not reflect increased reach into ethnic minority or less affluent communities. Providing greater clarity throughout the S&S Dance training about what core components need to be delivered would support instructors to deliver the classes with fidelity. Although the costs of developing the S&S Dance curriculum were high, the costs for additional classes to be delivered by trained instructors is low. Recommendations to support continued implementation of the S&S Dance curriculum are provided below (and are reported in detail within the full report):

- Use active strategies to encourage reach to less affluent or diverse communities, including subsidising instructor travel and class costs.
- Actively encourage social element of classes but consider the financial impact of this on instructors.
- Support S&S Dance instructors by establishing a formal community of practice and offering ongoing peer and professional CPD/observation.
- Maintain active HCC support for instructors through key contact and marketing support.
- HCC to consider ongoing CPD to support existing classes structure and instructor development.
- Work with instructors to develop a framework for ongoing data collection, allowing participants to receive feedback on their progress and for outcomes to be monitored.
- Work with curriculum developer to integrate instructor feedback on the curriculum, i.e. through clearer guidance, and consider how wider rollout of the curriculum could be made more accessible.

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Introduction

Falls prevention context within Hampshire

Falls present a significant public health concern in older adults living both independently and in supported housing. Approximately one third of adults over the age of 65 will fall at least once a year, increasing to half of those aged 80 and over (2). Falls can lead to personal injury, such as fracture and hospitalisation, alongside personal distress, loss of independence and reduced confidence. Injuries secondary to a fall cost the NHS more than £2.3 billion per year (3). Falls prevention is an important priority for Hampshire. It is the third most populous county and has an ageing population that is significantly higher than the national average (1 in 5 over the age of 65 compared to 1 in 6 nationally, as of 2020) (4). Across the county, the number of older adults at risk of falling was projected to rise to approximately 333,000 by 2023 (4).

In 2017, Public Health England (PHE) produced a Falls and Fracture Consensus Statement (5) recommending that older people (aged 65+) living in the community with low to moderate risk of falls should have access to strength and balance exercise programmes. Specifically, PHE noted that the training should be progressive and adaptable to participant needs (5). One such programme, the **Otago Exercise Programme (OEP)**, is a widely evidenced exercise programme aiming to reduce falls-related injuries and absolute falls risk in older adults. The programme incorporates a series of 17 strength and balance exercises, designed to be completed within home, outpatient, and group settings (6).

Hampshire Steady and Strong programme

Hampshire County Council (Public Health team) support training to deliver the Steady and Strong (S&S) programme, which aims to reduce the rate of falls across the county by improving strength and balance through evidence-based falls prevention exercise programmes, including the OEP. Hampshire County Council funds instructor training to deliver the classes privately in the community, alongside providing organisational and advertisement support. Currently there are 106 classes offered by trained private instructors across Hampshire.

Prior to the COVID-19 pandemic, the council supported the pilot of a new S&S programme, integrating the OEP into dance choreography, which has been delivered by a small number of instructors since 2019. In January 2023, Hampshire County Council commissioned the development of a training curriculum for S&S Dance (based on the OEP) to formalise the training requirements and eligibility criteria. A second training course was also offered to instructors by the S&S Dance curriculum developers, pairing the OEP with music (S&S to Music). The two new programmes are as follows:

1. **S&S Dance:** in which strength and balance training principles informed by OEP are integrated into dance classes for older adults.
2. **S&S to Music:** in which traditional OEP exercises are completed to music.

Following a successful tender process, the contracted curriculum developers designed a one day in-person training session for the S&S Dance programme. Community dance instructors meeting eligibility criteria received training in the programme to support the integration of the OEP principles into their class choreography and dance activities with older adults (65+ years). Completion of the OEP Leader programme was a pre-requisite for completion of the S&S Dance training day. Instructors without a dance background who had undertaken OEP Leader training were eligible to participate in the S&S to Music training. Following receipt of the training, instructors were supported to establish and deliver classes across the county.

Instructors participating in the S&S Dance training also received a quality assurance visit from the curriculum developers approximately three months after classes were initiated in the community.

Review of existing evidence and context for dance-based interventions

Falls have been defined as 'an unexpected event in which the subject loses their balance and comes to land on the ground, floor, or lower level' (7). Factors including reduced lower limb strength, muscle weakness, poor balance, and physical impairments have been demonstrated to increase falls risk in older adults (8). To improve physical function, the UK's Chief Medical Officers recommend that older adults should engage in 150 minutes of moderate to vigorous physical activity, including two strength and balance sessions per week (9). In addition to the physical benefits of exercise, mental acuity and social independence are maintained when older adults remain autonomously active (10). However, despite these benefits, only 19% of those between ages 65 and 74 and only 11% of those over 75 meet aerobic and muscle-strengthening guidelines in the UK (11).

Falls prevention interventions targeting strength and balance have demonstrated reductions in the rate of falls in older adults by 21% (12). Included in this, the OEP has been shown to improve a wide range of physical and cognitive outcomes including lower limb muscle strength, functional mobility, and cognitive function (13,14). Additionally, the OEP demonstrates enhancements of factors that support improved wellbeing, including confidence in one's own balance, reductions in social isolation and fear of falling (15,16). Kyrdalen and colleagues (2014) demonstrated that improvements made to functional balance and muscle strength were greater when engaging in the OEP as a group, rather than individually (17). Group training has also been shown to improve adherence rates in comparison to individual training, by providing greater motivation to participants to perform exercises more effectively (18).

Although there is limited evidence that dance-based interventions reduce the rate of falls, there is more robust support for improvements in fall-related risk factors. Recent studies demonstrate that dance-based interventions reduce falls risk (19), improve gait and balance (20,21), posture (22), alongside improving lower body strength (23). Beyond physical improvements, dance training demonstrates higher adherence (87-92%; (20,24) than for comparative strength training (56-79% (25,26). Broadly, literature demonstrates the benefits of dance in older age groups, particularly for fostering joy, play, pleasure, and a sense of physical freedom (27,28). Dance may therefore offer an alternative approach to reducing falls risk that is enjoyable and promotes greater adherence.

Development of the evaluation framework

Co-design of the evaluation aims

The evaluation methodology was co-designed by the PHIRST-Light team with Hampshire County Council, local partners, and stakeholders. To accomplish this, Hampshire County Council were encouraged to identify key stakeholders and invite them to attend two online co-production workshops (April 2023, delivered via Microsoft Teams). Attendees ranged from public health, healthy ageing, and physical activity local authority members, the curriculum developers, an NHS physiotherapist with falls expertise, instructors, and two current class attendees (total N = 14).

The focus of these workshops was to gain consensus on the primary research questions and explore the most appropriate methodology to answer those questions. Open dialogue was encouraged through a series of small breakout sessions and wider whole group discussions. Key elements to be tested within the programme logic model were defined, allowing drafting of a logic model and theory of change. This was presented for iteration at a second stakeholder session and finalised following feedback (see Appendix 1). We proposed a series of

research aims to test the theory of change and used this as a discussion point to reach consensus about the questions of greatest interest and importance across all stakeholders. During this process, it emerged that class attendees saw many positive benefits of the classes beyond functional fitness, including reductions in social isolation and improvements in activities of daily living and quality of life. These items were considered to be of importance and have been included in the evaluation.

Public contribution

The PHIRST-Light research team are committed to ensuring public voices are included throughout the entirety of each evaluation, with an additional emphasis on capacity building for effective and inclusive public contribution within local authorities. As part of the evaluation development process, a Hampshire-based patient and public involvement (PPI) group was established to advise on and assist with the evaluation design and delivery. This group was supported by two members of the PHIRST-Light public advisory group (PAG) and comprised nine users of exercise classes across Hampshire (aged over 65 years). Members of the PPI group were invited to initial online workshops to review the proposed methodological approaches and questions, with the received feedback shaping the final research protocol. Throughout the duration of the evaluation, the PPI group have helped to co-produce recruitment strategies and materials that are accessible and inclusive, including shaping wording of the interview guides, alongside developing our dissemination approach.

Research aims and objectives

This evaluation aimed to understand *the effectiveness of the newly developed S&S Dance programme at improving functional fitness (i.e. strength and balance) as proxy measures for falls risk*, when compared to S&S to Music and the OEP. This aim was refined through extensive discussions with stakeholders and reflected the feasibility of data collection. Given the extensive literature supporting the OEP, we aimed to determine whether the S&S Dance and S&S to Music produce comparative outcomes to the OEP, allowing conclusions to be drawn about their effectiveness as falls prevention programmes.

By expanding the current offerings and formats, there is the potential to increase the number of people who are able and motivated to access the S&S classes. It is therefore important to understand who attends which programmes and why. As a result, a core facet of the evaluation was to explore the impact of the newly developed S&S Dance training curriculum and community classes on uptake, particularly across sociodemographic characteristics, geographic areas, and groups that traditionally experience health inequalities.

Evaluation framework

The evaluation is underpinned by the RE-AIM framework, which was developed to address gaps in the translation of scientific evidence into policy and practice (1). The RE-AIM framework has become one of the most commonly used evaluation tools across the fields of public health and implementation science and comprises five key dimensions: reach, effectiveness (individual level), adoption, implementation (wider ecological levels), and maintenance.

Nested within the RE-AIM framework, our research questions explored six key concepts (of which four were derived from RE-AIM domains):

Concept	Research question

Reach	Who takes part in the three programmes (S&S Dance, S&S to Music, OEP)? How many people attend and do the programmes reach different populations?
Effectiveness	Does S&S Dance improve functional fitness? Are the outcomes of the S&S Dance comparable to S&S to Music and the OEP?
Acceptability	What are class attendees' perceptions of the programmes? What are some of the reasons for dropout?
Implementation (Fidelity)	What is delivered as part of the S&S Dance curriculum and is it delivered as intended?
Implementation (Maintenance)	What is required to deliver the S&S Dance training and classes (by HCC) and is this sustainable? What is required of instructors to deliver the programmes (all types) and is this sustainable?
Cost analysis	How much did it cost the council to design and deliver the S&S Dance? How much does it cost instructors to deliver all programmes?

Methods

Study design

This study used a **prospective observational design** to compare programme outcomes and a **mixed methods process evaluation** to explore acceptability, fidelity and implementation of the programmes. Collection of comparative quantitative data was conducted pre- and post-class attendance for new class enrollers in each of the three programmes (S&S Dance, S&S to Music, the OEP). This occurred alongside a descriptive analysis of data from class registers and demographic information, allowing exploration of both effectiveness and reach. Qualitative data collection among class attendees, including specific sampling across sociodemographic characteristics and those who dropped out of the classes, explored the acceptability of the classes, alongside barriers and facilitators for attending. Similarities and differences in the emerging themes were reviewed between programmes. To assess instructor fidelity to the S&S Dance programme, a checklist was developed in line with the programme curriculum. S&S Dance instructors were observed and fidelity to the core OEP principles was recorded. Qualitative interviews were conducted with instructors and council stakeholders to determine programme implementation factors alongside a brief quantitative measure of programme cost.

Table 1. below illustrates the study sequence, with data collection occurring at baseline, 12-weeks, and 24-weeks for new attendees. Data collection was staggered as classes did not start or run concurrently.

Table 1. Data collection timeline by concept and method

Concept	Baseline	12-weeks	24-weeks
Reach	Routine data collection on class attendance and demographic breakdown across all programmes (class registers, demographic questionnaires)	Routine data collection on class attendance across all programmes	Routine data collection on class attendance across all programmes

Effectiveness	Baseline functional and social measures across all programmes	Baseline functional and social measures across all programmes	Baseline functional and social measures across all programmes
Acceptability		Qualitative interviews with class participants (including those who attended until 24-weeks and those who discontinued) across all programmes	
Implementation (Fidelity)		Fidelity observations of instructors delivering S&S Dance classes	
Implementation (Maintenance)			Qualitative interviews with instructors (delivering all programmes) and council stakeholders
Cost analysis			Cost analysis surveys with instructors (delivering all programmes) and council stakeholders (covering the design and delivery of the S&S Dance)

For the purposes of this report, the following definitions have been used for clarity:

Programme: The type of OEP programme delivered, i.e. the S&S Dance, S&S to Music, and OEP
Class: Delivery of one of the programmes by an instructor to a group of participants, over 24-weeks
Session: Weekly delivery of the class, with approximately 22 weekly sessions delivered per class (accounting for holiday).

Data Collection

Recruitment

To support data collection, the PHIRST-Light team recruited a local research assistant who attended exercise classes at each of the three timepoints. At baseline (either the initial or second exercise class, or when new members joined an existing class), the research assistant provided newly enrolled class members with a participant information sheet and collected consent to participate in the evaluation. Hampshire County Council facilitated the recruitment of instructors who had attended the S&S Dance and S&S to Music training via email. Recruitment of instructors delivering the OEP classes occurred via council email lists and newsletter promotion. All members of the Hampshire County Council Public Health team involved in the delivery of the Steady and Strong programme participated in the evaluation.

Qualitative data collection

We conducted a series of individual interviews following a semi-structured format to explore class participant acceptability of the programmes. Instructors and members of council's Public Health team were also invited to participate in an individual interview exploring the implementation and sustainability of the different programmes. Understanding implementation at both an organisational and individual (instructor) level required different questions, resulting in the development of two interview guides tailored to the stakeholder group.

Class participants *(Acceptability)*

Class participants who consented to participate in the evaluation and attended at least one session were purposively sampled from across the three programmes to complete semi-structured individual interviews. We ensured sampling across areas and classes within Hampshire, completers (attended the 24-week timepoint) versus non-completers (attended at least one session but dropped out prior to 24-weeks), and demographics, including ethnicity and gender. Only those who were newly enrolled in a class were invited to participate, allowing baseline data collection. We aimed to recruit 15 participants spread across the classes and programmes. Interviews were conducted online or over the telephone, depending on participant preference. An interview guide was developed to explore the following topics relating to acceptability:

- Enjoyment of the programme and class
- Confidence during the classes and to be active more generally
- Motivation for attending the type of exercise programme and reasons for discontinuation
- Barriers and facilitators for attending
- Strengths of the programmes and areas for improvement
- Social and daily living/quality of life outcomes

Instructors *(Implementation – Maintenance)*

All instructors who delivered S&S Dance classes, alongside instructors delivering the S&S to Music and OEP classes were invited to participate in a semi-structured interview exploring implementation and sustainability factors, including similarities and differences in responses across the programmes. We aimed to recruit 15 instructors for the interviews. The interview guide included questions around:

- Confidence to deliver the programme/s and whether this differed by programme
- What support they felt they had or was needed
- Sustainability of the programmes, alongside barriers and facilitators to delivery
- Feedback on the acceptability and utility of the Otago Leader and S&S Dance training and any additional training that may be required

Council stakeholders (*Implementation – Maintenance*)

All stakeholders who were key to the commissioning and/or delivery of the programmes were approached to participate in a semi-structured interview. We aimed to recruit three to four council staff involved in the design and delivery of the S&S Dance curriculum. It was hoped this would allow exploration of the curriculum development process and implementation/ sustainability factors at an organisational level, with questions exploring:

- Supportive factors and challenges in the set up and implementation of the S&S Dance programme
- Barriers and facilitators to successful ongoing delivery
- Decision-making related to funding and programme continuation (sustainability)
- Confidence in instructor delivery and perceptions of the delivery model
- Unintended consequences

Quantitative data collection

In addition to the qualitative data collection, quantitative tools including measures of functional fitness and social outcomes, class attendance from registers, fidelity checklists and costs analysis surveys were used to address questions across four research domains: reach, effectiveness, fidelity, and implementation (maintenance).

Reach

Baseline demographic data were collected for all class participants across the three programmes, including: Age, gender, ethnicity, postcode (allowing calculation of deprivation index), disability, and status as a carer. Weekly class registers were collected from instructors to determine attendance rates and consistency over time. Class record data were provided under a data-sharing agreement between instructors and the research team.

Effectiveness

Functional measures

All new class starters across each of the three programmes were approached to participate in the evaluation (recruitment occurring via the research assistant who attended each class). Following consent, participants were asked to complete measures of functional fitness during their initial (baseline) class session, which were then repeated at 12- and 24-weeks to assess prospective change. Importantly, feedback from both our PAG and stakeholder sessions highlighted not only the physical benefits of engaging in the exercise classes, but also the broader psychosocial impacts of engagement. As a result, we integrated measures of psychosocial functioning into the baseline and follow-up assessments to ensure wider effects of the programmes were captured.

Measures include:

Timed up and go (TUG) test (29): This measure records the time taken to rise from a chair, walk three metres at a consistent speed, turn and walk back to the chair, and sit down. The measure demonstrates good inter- and intra-rater reliability and is widely used in falls prevention studies.

30-second sit-to-stand (STS; (30): This measure requires individuals to stand up and sit down from a standard-height chair as many times as possible within 30 seconds.

TURN180 (31): This measures dynamic postural stability, requiring individuals to complete a 180 degree turn and count the footsteps required to achieve this. Previous research demonstrates that individuals who required more than four steps to complete the turn are at increased risk of falling (32)

Short Falls Efficacy Scale International (Short FES-I; (33): This Short FES-I is a seven-item measure assessing concern about falling. It demonstrates comparable internal and retest reliability to the original FES-I measure.

CONFbal Scale (34): This is a brief 10-item measure used to assess balance confidence across a range of daily activities in older adults. It has been widely utilised in falls prevention research.

EQ-5D-5L (35): This measure provides insight into health-related quality of life across five domains and has been extensively used in health and care research.

UCLA Loneliness Scale (36): This 20-item tool is used to assess subjective feelings of loneliness or social isolation.

Lubben Social Network Scale-6 (37): A six item measure of social network and connectedness with family and friends, including perceived level of support.

Fidelity

In-person class observations were carried out to assess fidelity to S&S Dance principles and for quality assurance purposes (not included within this evaluation). Instructors who completed the S&S Dance training day and were currently delivering classes were included. Observations were undertaken between three and five months after classes began and lasted the duration of the session (approximately one hour). Sessions were observed by the S&S Dance curriculum developers, who are highly experienced OEP and dance instructors, using a quality assurance and fidelity checklist. The essential S&S Dance content was finalised through discussions with the curriculum developers and is listed in figure 1. It was determined that fidelity to the S&S Dance criteria did not necessitate delivery of all 17 strength and balance movements (6) in each class, but required adherence to the broader principles of the OEP (including effective leading, tailoring, and progression). Fidelity observations were not conducted for other programmes as the focus of this research question was to explore how the newly developed S&S Dance curriculum was delivered in the community.

1. Session plan aligns with best practice content: OEP exercises formed basis of creative sequences.
2. Pre-class checks and new participants with health status check since last session. Seeking feedback on home exercise programme and successes/exercise questions.
3. Planned for issue of home exercise booklets and advised participants how to put on and take off ankle cuff weights safely (for home use and in group sessions).
4. Set up start position for exercise within components as part of the sequence (including coaching on base of support/external support, and which component was being trained, e.g. warm-up, strength).
5. Accurate visual demonstrations and named the exercises to support home exercise.
6. Built sequences gradually, ensuring each stage was understood before progressing.
7. Performed exercises to an appropriate duration to be effective (e.g. repetition, timing, pace).
8. Effectively observed participants and reinforced technique points at regular intervals, to support optional gains.
9. Offered alternatives, progressions, and adaptations.
10. Used effective verbal and non-verbal instructions; simply, with clarity, spoke audibly, gestures big and bold and used appropriately.
11. Remained aware of all transitionary movements.
12. Used meaningful, motivating language to nurture confidence, encourage progression and promote benefits of progressed strength and balance exercises as part of dance sequences.

Figure 1. Twelve principles of S&S Dance fidelity

Fidelity to the S&S Dance training curriculum was divided into two components: 1) Fidelity to the OEP exercises and 2) Fidelity to the core principles of the OEP. The following criteria were used by the observers to assess fidelity to the delivery of OEP exercises:

- Fidelity Met: Criteria fully evidenced.
- Work in progress: Some inconsistencies.
- Not met: Not evidenced.

The following criteria were used to assess fidelity to the 12 core OEP principles:

- Fidelity met: Criteria fully evidenced.
- Mainly met: Some inconsistencies.
- Work in progress: Some evidence but lots of missed opportunities.
- Not met: Not evidenced.

Data from these observations was triangulated with qualitative interview data to explore the context surrounding delivery of the S&S Dance classes. The Template for Intervention Description and Replication (TIDieR) checklist (38) was used to describe the elements of the S&S Dance curriculum (see Appendix 2). The TIDieR checklist was developed to promote standardised descriptions of trial interventions, allowing for greater comparison and replicability between studies (38). It has been widely used in health research and provides a template for fidelity monitoring. Drawing from the training curriculum, we applied the TIDieR checklist to identify key features of the curriculum for future reproducibility.

Cost analysis surveys

Council stakeholders were sent a brief survey to assess the cost of developing and delivering the S&S Dance programme. This included: Setup, fixed, and variable costs alongside income generated for the instructors.

Costs to the council of developing the S&S Dance training curriculum and launching the classes fell into three categories:

- The curriculum development cost (i.e. tendered cost to curriculum development company)
- Fixed costs to deliver the curriculum training and launch the classes (i.e. training room hire, Facebook advertisement to recruit instructors)
- Variable costs to deliver the curriculum training and launch the classes (i.e subsidisation of OEP Leaders training, pump priming for classes, ankle weights, OEP home exercise booklets, marketing) which are dependent on the number of instructors trained and classes delivered.

Instructors were sent a brief survey to assess the cost of delivering the three programmes. Costs to the instructors for attending any required training and setting up and delivering the classes included:

- Revenue earned from each weekly session delivered
- Fixed costs to attend the training and launch the classes (i.e. training costs, props, equipment, insurance, and CPD)
- Variable costs to deliver the classes (i.e room hire, refreshments, and travel costs) which are dependent on the number of class participants and classes delivered.

Costs were analysed by each weekly session delivered and are presented by programme type.

Data Analysis

Qualitative analysis

All qualitative data were transcribed verbatim and analysed using NVivo software (QSR International Ltd, Melbourne, Australia). Data were analysed using an inductive thematic approach (39). During the first phase of analysis, a researcher (HK) conducted a preliminary scan of the data, allowing generation of initial codes for data extraction in line with the primary research questions. The analysis was then re-focussed to sort and group the codes into analytical categories or themes. A 'constant comparative' method was used to compare individual data items with the rest of the data, ensuring that the preliminary themes retained importance with

additional interviews (40). To ensure reliability of the coding system, a second researcher (LV) independently coded and compared 20% of the interview transcripts. During the second phase, themes were refined to ensure data cohered together meaningfully, with clear and distinct themes. Themes were reorganised and collapsed as required. Finally, a detailed analysis was conducted for each theme. Instructor interviews were analysed together initially to determine whether there was overlap in the responses provided across programme types. Differences between programmes are highlighted within the text.

Quantitative analysis

Demographics

A map was produced to visualise the spread of class participants across the county, based on participant postcodes. Descriptive analyses were performed on all quantitative variables, including weekly class attendance registers; frequencies and percentages were calculated for categorical variables and means with standard deviations for continuous variables (or median and interquartile range if not normally distributed). Proportions were calculated for demographic variables. Indices of Multiple Deprivation (IMD) were calculated using the current English Indices of Deprivation data (2019) published by the Ministry of Housing, Communities & Local Government (41). Bivariate analyses were conducted to assess the association between the programme type and key demographic data (e.g. age, gender, ethnicity, post code) using Fisher's exact tests for categorical outcomes and Kruskal-Wallis H tests for continuous outcomes (for non-normally distributed data). Bivariate analyses were also used to assess demographic and baseline differences between completers (attending the 24-week visit) and non-completers (not attending the 24-week visit) of all class types using Fisher's exact, Mann Whitney U, and Independent T-Tests. P values <0.05 were considered statistically significant.

Primary analyses

Prospective changes to functional and psychosocial scores for the S&S Dance programme were assessed through comparative methods, including repeated measures ANOVA and the Friedman test (for non-normal variables) at baseline, 12- and 24-week timepoints. Pairwise comparisons were performed, with Bonferroni correction to account for multiple comparisons. Planned comparisons across programmes were not completed due to low sample sizes.

Fidelity

A brief description of the curriculum is reported in Appendix 2. according to the TIDiER framework (38), using information drawn from the curriculum training manual. Descriptive statistics were used to characterise frequency of whether S&S Dance curriculum fidelity was met for each OEP principle, alongside the frequency of individual OEP exercises delivered within a session. Data for the number of instructors meeting fidelity criteria on each item were reported using frequencies with percentages.

Cost analysis

Cost analysis calculations were used to assess delivery costs of the S&S Dance programme for Hampshire County Council, which was income earned per class (i.e. 24-week programme) minus variable costs. Fixed costs are presented as standalone costs as these did not vary by number of instructors trained or classes delivered. Council staff time was not included in the calculation as the service was delivered as part of the wider S&S programme and it was difficult to determine time investment dedicated to the S&S Dance delivery. Cost analysis calculations were also conducted to assess delivery costs for instructors across all programmes: revenue earned per session minus fixed and variable costs (such as room hire, insurance). Mean values were calculated per session based on the assumption that class sessions are delivered over 45 weeks of the year.

Instructor net income per class was compared to the rates proposed within a 2018 return-on-investment (ROI) calculation tool, based on 2015-2016 salary data (42). The Bank of England inflation rate calculator was used to calculate current expected rates per session, using the ROI rates and adjusted for inflation (43).

Triangulation

Data triangulation was used to improve the validity and reliability of the findings. This included using a variety of data sources and methodology types (mixed methods approach). The lead researcher made critical observations about the data, prioritising the most relevant findings. They then identified overlapping trends and themes across the data sources, allowing conclusions to be drawn.

Results

The following section outlines the evaluation findings by RE-AIM framework component.

Reach

Instructor training attendance

In total, nine instructors attended the newly developed S&S Dance creative day. Of those, eight set-up and delivered classes, with six agreeing to participate in the evaluation. One instructor did not deliver a class in the time period required for the evaluation.

Three instructors attended the S&S to Music half-day training, with two agreeing to participate in the evaluation. Three instructors were newly trained (June 2023) in the OEP Leaders programme to deliver the OEP, with two agreeing to participate in the evaluation.

Class Delivery

In total, nine instructors participated in the evaluation: seven instructors delivering S&S Dance classes, two instructors delivering the OEP, and two instructors who delivered S&S Dance, S&S to Music and OEP classes simultaneously, providing data from each of these programmes. One instructor did not attend the S&S Dance training but co-teaches the classes with another trained instructor and was therefore invited to participate in the evaluation.

In total, we collected data from 11 classes delivered across nine locations within Hampshire county. Not all classes continued for the duration of the study (i.e. 24-weeks): We were only able to collect 12-week follow up data for two S&S Dance classes due to a delayed class start and maternity leave, one S&S Dance class was cancelled prior to the 12-week follow-up, and one OEP class was cancelled prior to 24-weeks. Demographic and follow-up data were not available for the participants in the Hindhead class, so they were removed from the analyses. Area, class type, and number of participants recruited are presented below.

Gosport	Farnborough	Havant	Hindhead	Lee-on-the-Solent
S&S Dance (n=4)	OEP (n=2)	OEP[c] (n=3)	S&S Dance[a] (n=2)	OEP (n=6)

Park Gate	Romsey	Stubbington	Winchester
S&S Dance[b] (n=6)	S&S Dance (n=12)	S&S to Music (n=4) S&S Dance (n=16)	2 x S&S Dance (n=12)

[a]Class cancelled prior to 12-week follow-up due to low uptake; [b]Class ended at 11 weeks due to instructor maternity leave; [c]Class cancelled prior to 24-weeks due to low uptake

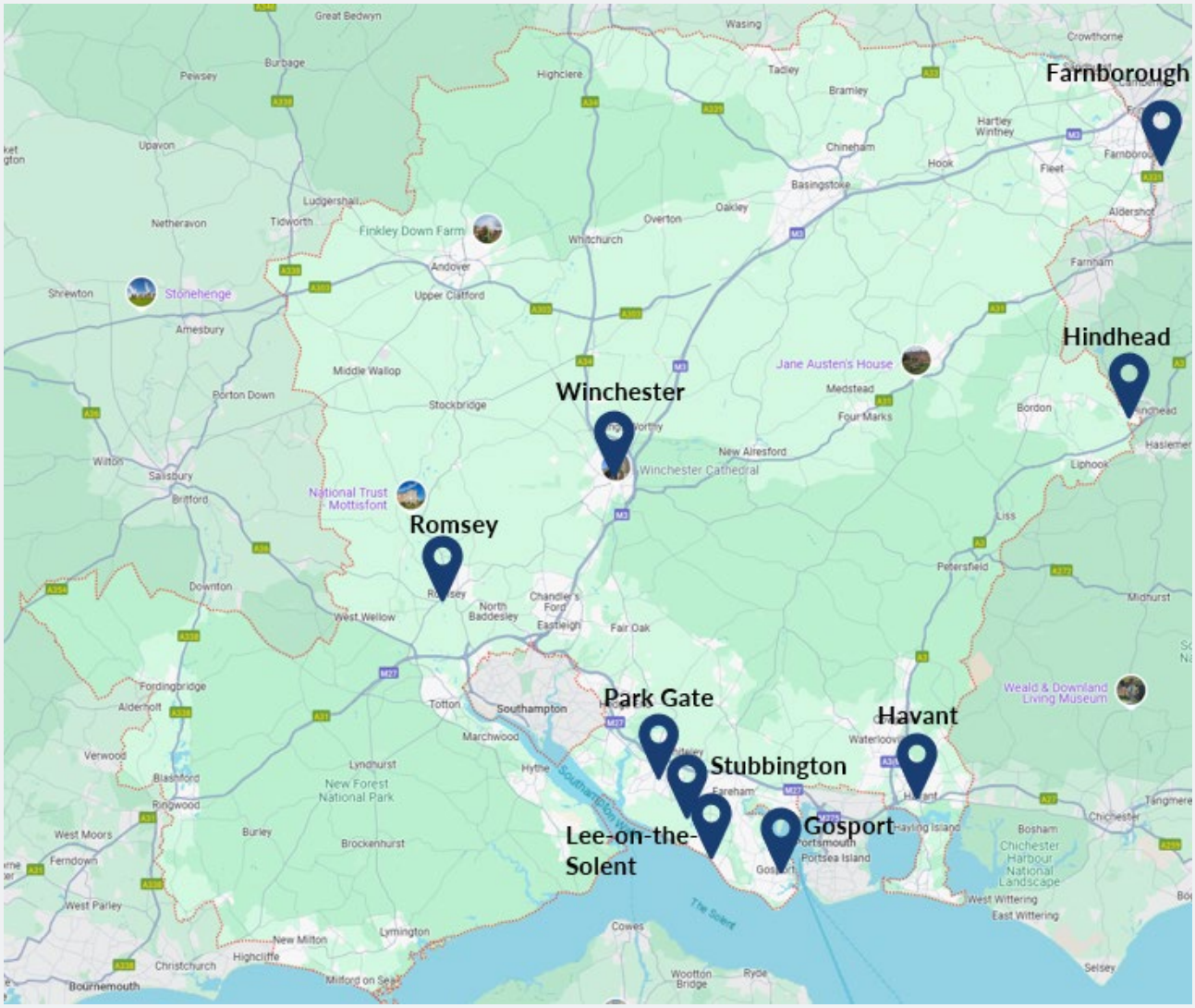

Figure 2. Class locations across the county

Classes were delivered in areas with the following Indices of Multiple Deprivation (IMD) quintiles:

Quintile	N (%)*
1 (most deprived)	1 (11.11%)
2	2 (22.22%)
3	1 (11.11%)
4	1 (11.11%)
5 (least deprived)	4 (44.44%)

Participant characteristics

During the data collection period (September 2023 to May 2024), 65 participants provided baseline data. Of those, n=50 participated in S&S Dance (76.9%), n=4 (6.2%) in S&S to Music, and n=11 (16.9%) in OEP. The number of people who expressed interest in each class or were referred and did not attend was not recorded.

The figure below provides a general representation of the postcodes of participants taking part in the evaluation, across Hampshire county.

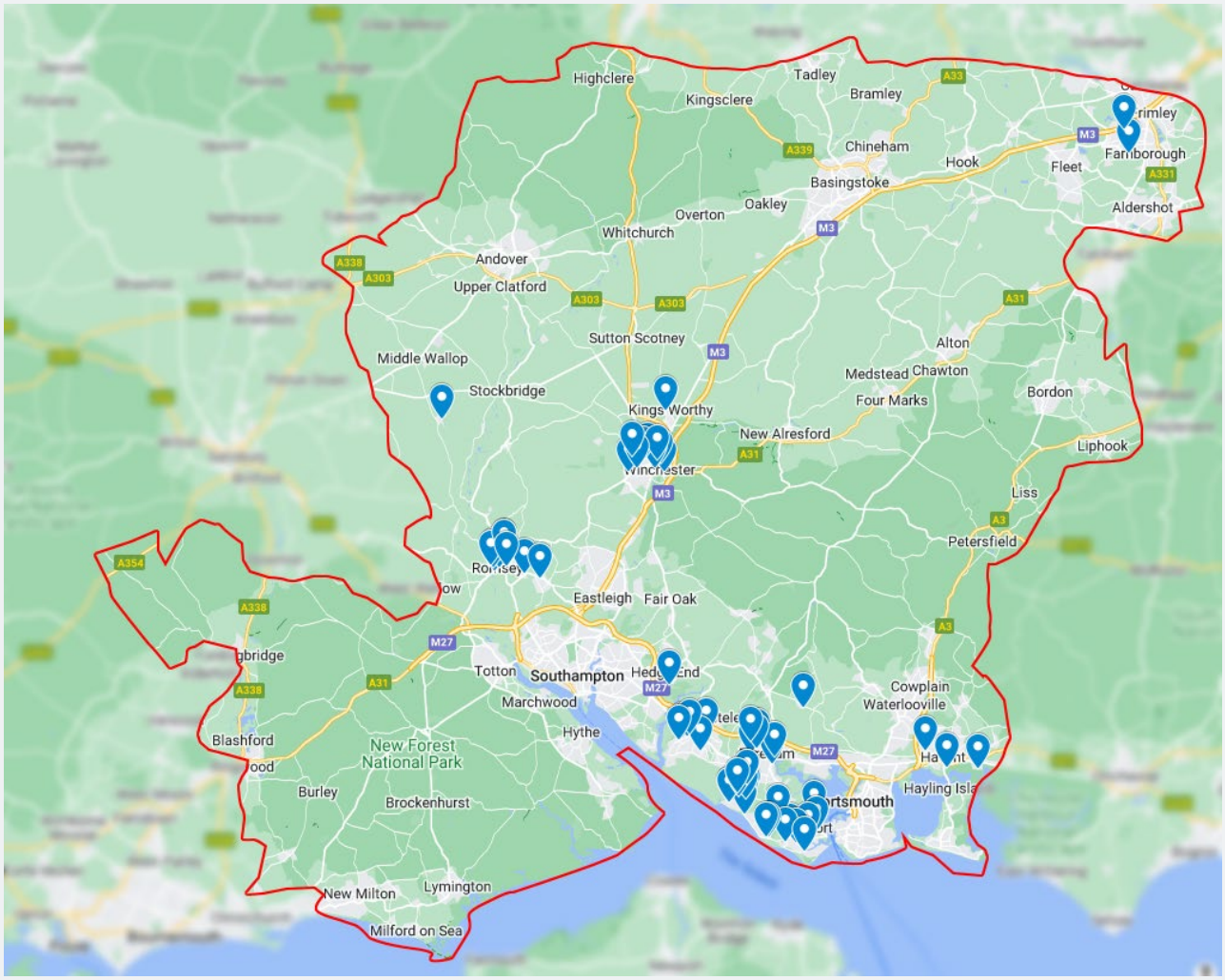

Figure 3. Postcodes for participants attending the OEP classes

The sample predominantly consisted of female-identifying participants (90.8%) of White British ethnicity (92.3%), with a mean age of 75.3 years (SD = 6.09) across all programmes. Over 98% were native English speakers and the majority (70.8%) had completed further education. Almost 17% had experienced a fall within the three months prior to attending class, with almost 50% reporting some disability in daily activities. Participants were primarily from areas of greater affluence, with over 60% of the sample living in the most affluent quintile of England and 1.6% living in the most deprived quintile (median IMD score of 9; IQR 7-10, table 3). Participant characteristics are provided in table 2.

Comparisons between classes

Bivariate analyses were conducted to assess the association between the programmes and key selected demographic data (including age, gender, ethnicity, disability, recent falls, and IMD) that would be potential covariates in the primary analyses. Fisher's exact and Kruskal-Wallis H tests showed no significant demographic differences by programme type, except for disability in daily activities and falls in the past three months (table 2). A significantly higher proportion of those participating in the S&S to Music and OEP reported that their daily activities were limited 'a little' and 'a lot' in comparison to the S&S Dance cohort.

Table 2. Class Participant Demographics

Characteristic	All Classes N=65	S&S Dance N=50	S&S to Music N=4	OEP N=11	P value	Significant difference noted
	Total N (%)	Total N (%)	Total N (%)	Total N (%)		
Gender					1.00	None
Male	6 (9.20%)	5 (10.00%)	0 (0.00%)	1 (9.10%)		
Female	59 (90.80%)	45 (90.00%)	4 (100.00%)	10 (90.90%)		
Ethnicity					0.49	None
White British	60 (92.30%)	46 (92.00%)	4 (100.00%)	10 (90.90%)		
Other White background	3 (4.60%)	3 (6.00%)	0 (0.00%)	0 (0.00%)		
Asian background[e]	2 (3.10%)	1 (2.00%)	0 (0.00%)	1 (9.10%)		
First language					/	/
English	64 (98.50%)	49 (98.00%)	4 (100.00%)	11 (100.00%)		
Non-native English speaker[e]	1 (1.50%)	1 (2.00%)	0 (0.00%)	0 (0.00%)		
Living arrangement					/	/
Living with spouse/partner	36 (55.40%)	27 (45.00%)	3 (75.00%)	6 (54.50%)		
Living alone	29 (44.60%)	23 (46.00%)	1 (25.00%)	5 (45.50%)		
Marital status[d]					/	/
Married	33 (50.80%)	26 (52.00%)	3 (75.00%)	4 (36.40%)		
Divorced	7 (10.80%)	7 (14.00%)	0 (0.00%)	0 (0.00%)		
Widowed	19 (29.20%)	13 (26.00%)	1 (25.00%)	5 (45.50%)		
Civil Partnership/other	5 (7.70%)	4 (8.00%)	0 (0.00%)	1 (9.10%)		
Education[d]					0.83	None
Primary School	1 (1.50%)	1 (2.00%)	0 (0.00%)	0 (0.00%)		
Secondary School	16 (24.60%)	11 (22.00%)	1 (25.00%)	4 (36.40%)		
Further Education/College	16 (24.60%)	11 (22.00%)	1 (25.00%)	4 (36.40%)		
University	30 (46.20%)	25 (50.00%)	2 (50.00%)	3 (27.30%)		
Employment					/	/
Retired	63 (96.90%)	49 (98.00%)	4 (100.00%)	10 (90.90%)		
Working part-time	2 (3.10%)	1 (2.00%)	0 (0.00%)	1 (9.10%)		

Disability in daily activities[d] No Yes, limited a little Yes, limited a lot	 30 (46.20%) 32 (49.20%) 2 (3.10%)	 28 (56.00%) 21 (42.00%) 1 (2.00%)	 0 (0.00%) 1 (25.00%) 3 (75.00%)	 2 (18.20%) 8 (72.70%) 0 (0.00%)	<0.01	S&S Dance and S&S to Music S&S Dance and OEP
Carer status (providing care to a significant other)[d] No Yes <50 hours/week Yes >50 hours/week	 51 (78.50%) 11 (16.90%) 2 (3.10%)	 38 (76.00%) 9 (18.00%) 2 (4.00%)	 4 (100.00%) 0 (0.00%) 0 (0.00%)	 9 (1.80%) 2 (18.20%) 0 (0.00%)	/	/
Falls in past three months Yes No	 11 (16.90%) 54 (83.10%)	 4 (8.00%) 46 (92.00%)	 3 (75.00%) 1 (25.00%)	 4 (36.40%) 7 (63.60%)	<0.01	S&S Dance and S&S to Music S&S Dance and OEP
	Mean (SD)				**P value**	**Significant difference noted**
Age (Years)	75.30 (6.09) Range: 63-89	74.70 (6.39) Range: 63-85	77.50 (4.04) Range: 74-81	76.90 (5.09) Range: 70-89	0.43	None
	Median (IQR)*				**P value**	**Significant difference noted**
Index of Multiple Deprivation (IMD)	9 (7-10) Range: 2-10	9 (7-10) Range: 2-10	9 (4.25-10) Range: 3-10	9 (9-10) Range: 3-10	0.94	None
Number of Falls in Past Three Months	1 (1-2) Range: 0-5	1 (0.25-1) Range: 0-1	1 (n too small to calculate) Range: 1-3	2 (1.25-4.25) Range: 1-5	Unable to calculate due to small n	

*For non-normal distributions; [a]Fisher's Exact Test; [b]Kruskal-Wallis H Test; [c]One-way ANOVA; [d]Missing data; [e]Presented as a single category to reduce identifiability

Table 3. Percentage of sample by Index of Multiple Deprivation Quintile

Quintile	N (%)*
1 (most deprived)	1 (1.60%)
2	4 (6.30%)
3	5 (7.80%)
4	15 (23.40%)
5 (least deprived)	39 (60.90%)

*n=1 missing postcode information

Referral and recruitment route

Participants predominantly heard about the classes through Facebook advertisements or the council's Facebook page (n=20, 30.8%), or via friend and family recommendations (n=27, 41.5%). Others were referred to classes via a health care professional (HCP) including physiotherapists, hospital consultants, and General Practitioners.

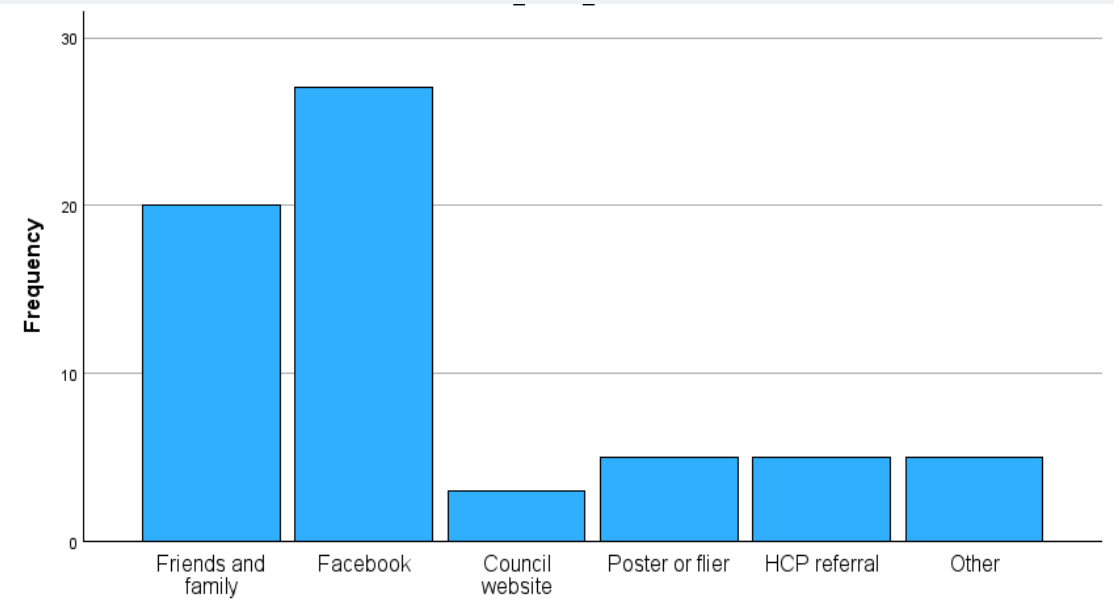

Figure 4. Frequency of referral route for all classes

Attendance Records

Class attendance records were provided for 51 participants from five S&S Dance classes (n=38), two OEP classes (n=9), and one S&S to Music class (n=4). As there was no prescribed programme length, regular attendance was categorised as attendance at more than 75% of weekly sessions for classes delivered over 24-weeks, or 75% attendance at classes delivered up to 12-weeks (for one S&S Dance class) (44). For the S&S Dance classes, 24 (63.2%) participants attended over 75% of classes, two participants (50.0%) were regular attenders for S&S to Music, and five (55.6%) for the OEP.

Effectiveness

Given the small sample sizes across the OEP and S&S to Music classes, the study was not adequately powered to complete group by time comparisons (i.e. differences in measures between groups over time). Instead, primary analyses focused on exploring:

1. Differences between those who were retained at 24-weeks in the S&S Dance classes and those who dropped out

2. Change across all three timepoints for those who completed 24-weeks of S&S Dance

Of the 50 participants within the S&S Dance group, 39 provided complete 12-week follow-up and 20 provided complete data at 24-weeks. All S&S Dance classes provided at least 12-week data, however we were unable to collect 24-week data from two S&S Dance classes (of those two classes, n=18 provided baseline data and n=15 provided 12-week data).

Of those in classes that reached the 24-week follow-up, participant dropout was related to class dropout, with no participants withdrawing from the study itself. Reasons for dropout were not always reported, but for those who gave reasons these related to increased caring responsibilities, injury, illness, and wanting to discontinue the class. Missing data included non-completion of the questionnaires or functional measures.

Figure 5. Study recruitment and retention flow-chart

Completers vs. non-completers

Comparisons between those who completed all three time points (baseline, 12-weeks, 24-weeks) and those who did not complete the 24-week data collection (i.e. dropped out at any point prior to 24-weeks) were conducted to determine whether significant baseline differences for demographic or outcome measures existed between the groups. Participants from classes that did not continue beyond 12-weeks and those with missing data were excluded, with a final n of 29 (n=20 completers, n=9 non-completers).

Disability in daily activities was combined into two groups to aid analysis; those with 'some' to 'many' limits to daily activity verses those with 'no' limits. A significant difference was observed between completers and non-

completers by disability in daily activities; a significantly higher proportion of those who dropped out were limited in their daily activities (66.70% vs. 25.00%). No significant differences were noted on any other variable, although a small sample size prevented these calculations for gender, education, and falls in the past three months.

Table 5. Comparison of baseline characteristics between those who completed all three time points and those who did not complete 24-week data collection for S&S Dance classes.

Variable	Completers (n=20)	Non-completers (n=9)	P value	Significant difference noted
Age[c]			0.76	None
Mean (SD)	74.67(6.55)	73.91(6.83)		
Gender			Unable to calculate due to small n	
Female n(%)	19(95.00)	9(100.00)		
Male n(%)	1(5.00)	0(0.00)		
Ethnicity[a]			0.34	None
White British n(%)	20(100.00)	8(88.90)		
Other white background n(%)	0(0.00)	1(11.10)		
Education			Unable to calculate due to small n	
Primary school n(%)	0(0.00)	1(11.10)		
Secondary school n(%)	3(15.00)	0(0.00)		
University n(%)	10(50.00)	7(77.80)		
Further education n(%)	7(35.00)	1(11.10)		
Disability in daily activities[a]			0.03	Yes
Limited (little/lot) n(%)	5(25.00)	6(66.70)		
Not limited n(%)	15(75.00)	3(33.30)		
Falls in past three months			Unable to calculate due to small n	
Yes n(%)	1(5.00)	0(0.00)		
No n(%)	19(95.00)	9(100.00)		
IMD[b]			0.85	None
Median(IQR)	8.00(7.00-10.00)	9.00(7.00-10.00)		
Turn180[b]			0.93	None
Median(IQR)	3.00(3.00-4.00)	3.00(2.50-4.50)		
TUG[b]			0.28	None
Median(IQR)	8.84(7.42-8.84)	10.21(8.01-11.36)		
STS[c]			0.09	None
Mean (SD)	11.71(4.33)	9.78(1.64)		
CONFbal[b]			0.63	None
Median(IQR)	12.00(10.00-14.00)	12.00(10.00-16.50)		
Short FES-I[b]			0.44	None
Median(IQR)	7.00(7.00-10.00)	8.00(7.00-9.50)		
UCLA[b]			0.09	None
Median(IQR)	22.00(20.50-22.00)	27.00(23.00-42.00)		
EQ5D-5L[b]			0.52	None
Median(IQR)	7.00(6.00-8.00)	7.00(6.00-8.00)		
LSNS[c]			0.45	None
Mean (SD)	17.43(3.87)	18.70(5.06)		

[a] Fisher's exact test; [b] Mann Whitney U; [c] Independent T-Test

Primary Analyses

Baseline to 24-week analysis

For those completing the S&S Dance at all three timepoints (n=20), repeated measures tests (ANOVAs and the Friedman test) were used to compare baseline, 12- and 24-week follow up data. Significant improvements were seen on all three measures of strength and balance from baseline to 24-weeks (Turn180, TUG, STS). Participants also reported significant improvements in their confidence to maintain their balance (CONFbal) and a significantly reduced sense of loneliness (UCLA) over the course of each class. No significant changes were observed for FES-I, EQ5D-5L, and LSNS scores. Post hoc tests with corrections were used to explore significant findings. Given class cancellations and participant drop-out, 55% (n=11) of the 24-week data were obtained from a single class. Data are presented below in table 6 and figure 5.

Table 6. Parametric and non-parametric repeated measures assessing strength, balance, and psychosocial measures from baseline to 24-weeks.

Test	Timepoint	Median (IQR)	Chi-square	P value	Change direction	Significant change observed[c]
Turn180[a]	Baseline 12-week 24-week	3.50 (3.00-4.00) 3.00 (3.00-4.00) 2.00 (2.00-3.00)	21.43	<0.01	Reduced score = improvement in balance	Baseline to 24 weeks 12 to 24 weeks
TUG[a]	Baseline 12-week 24-week	8.93 (7.55-10.99) 7.94 (6.68-9.98) 6.49 (5.99-7.84)	33.90	<0.01	Reduced score = improvement in speed	All timepoints
CONFbal[a]	Baseline 12-week 24-week	12.00 (10.00-14.50) 11.00 (10.00-14.00) 10.00 (10.00-12.00)	10.51	<0.01	Reduced score = increased confidence in balance	Baseline to 24 weeks
Short FES-I[a]	Baseline 12-week 24-week	7.00 (7.00-10.00) 7.00 (7.00-9.00) 7.00 (7.00-9.00)	1.73	0.420		None
UCLA[a]	Baseline 12-week 24-week	22.00 (20.50-27.50) 21.00 (20.00-31.00) 20.00 (20.00-24.50)	9.81	<0.01	Reduced score = reduced loneliness	12 to 24 weeks
EQ5D-5L[a]	Baseline 12-week 24-week	7.00 (6.00-8.00) 7.00 (5.50-8.50) 6.00 (5.50-7.00)	4.82	0.09		None
Test	**Timepoint**	**Mean (SD)**	**F value**	**P value**		**Significant change observed[d]**
STS[b]	Baseline 12-week 24-week	11.40 (4.19) 14.10 (3.21) 16.45 (3.63)	27.70	<0.01*	Increased score = improvement in number STS completed	All timepoints
LSNS[b]	Baseline 12-week 24-week	17.05 (3.55) 18.20 (3.12) 18.05 (4.11)	1.08	0.351		None

[a] Friedman test; [b] Repeated measures ANOVA; [c]Wilcoxon Signed Rank test with Bonferroni correction; [d]Pairwise comparisons with Bonferroni correction; *Greenhouse-Geisser correction applied due to violation of sphericity assumption

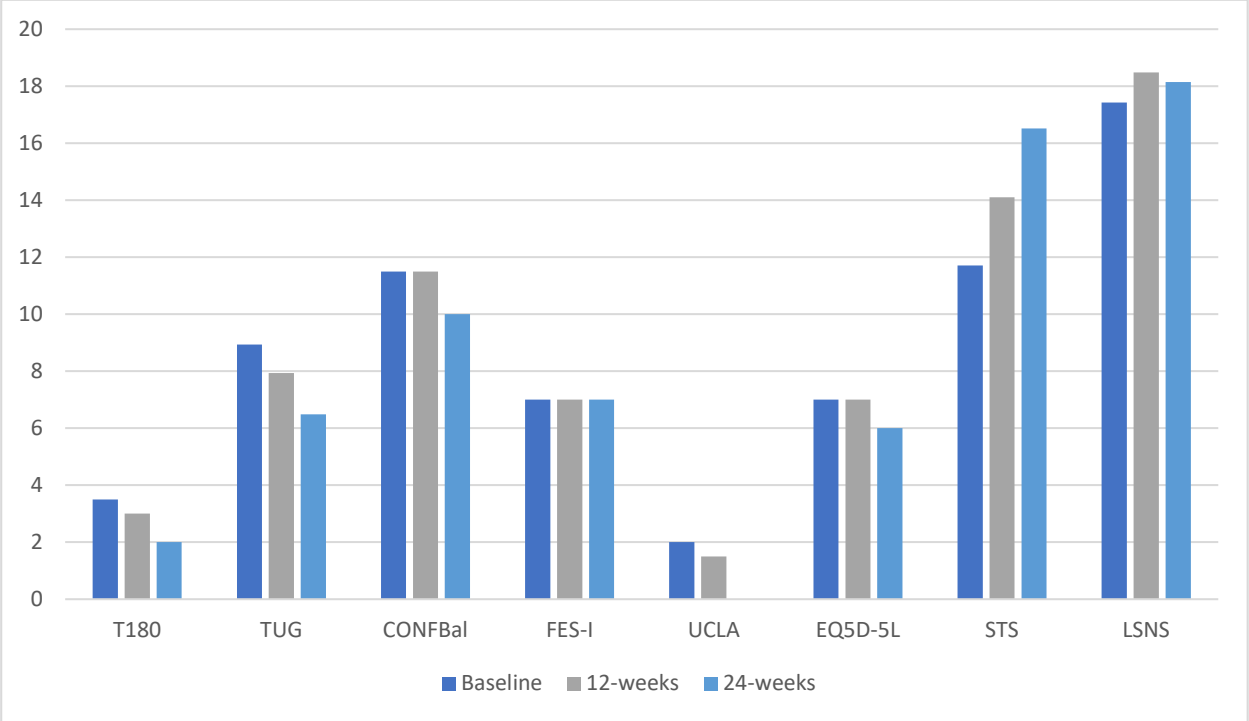

Figure 6. Median and mean scores across all timepoints

Fidelity

A detailed summary of the S&S Dance intervention using the TIDieR framework can be found in Appendix 2.

Six instructors were observed during their classes. The remaining instructors had not established their classes by the time the fidelity visits were conducted or had discontinued delivering a class due to low attendance rates. Fidelity to the training curriculum was divided into 1) fidelity to OEP exercises and 2) fidelity to the core principles of OEP. Counts (%) for each of the OEP exercises are shown in table 7 below, alongside observers' ratings of fidelity for delivering the core exercises as part of the S&S Dance curriculum.

1. **Fidelity to OEP exercises**

Most warm-up and cool down exercises were included. The most commonly observed strength and balance exercises included front knee strengthening, knee bends, sideways walking, and sit to stand (>80% of instructors). Side hip strengthening, heel/heel toe walking, and stair walking were not observed in any routines. Instructors included non-OEP static and moving balance exercises throughout the classes that were not captured within the checklist.

Most instructors met fidelity for the warm-up, strength, and balance sections (>=66.67%) and if not, fidelity was partially met and included most core exercises. In the cool down section, only 50% of instructors delivered all core exercises, and 50% did not meet fidelity. For those not meeting fidelity, it was noted that most ran out of time at the end of class to deliver all exercises.

Table 7. Observed counts of each exercise and the corresponding fidelity rates

Exercise/ section	Instructor count n (%)
Mobility (warm up)	
March	6(100.00%)
Head movements/Neck movements	5(83.33%)
Back extension	2(33.33%)
Trunk movement	3(50.00%)
Ankle movements	3(50.00%)
Instructors meeting fidelity criteria n (%):	Fidelity met: 4(66.67%) Work in progress: 2(33.33%) Not met: 0(0.00%)
Strength	
Front knee strengthening	6(100.00%)
Back knee strengthening	4(66.67%)
Side hip strengthening	0(0.00%)
Calf raises	1(16.67%)
Toe raises	1(16.67%)
Instructors meeting fidelity criteria n (%):	Fidelity met: 5(83.33%) Work in progress: 1(16.67%) Not met: 0(0.00%)
Balance	
Knee bends	6(100.00%)
Toe walking	1(16.67%)
Heel toe stand	2(33.33%)
Heel toe walking	0(0.00%)
One leg stand	4(66.67%)
Sideways walking	6(100.00%)
Heel walking	0(0.00%)
Sit to stand	5(83.33%)
Backwards walking	3(50.00%)
Heel toe backwards walking	0(0.00%)
Walk and turn	2(33.33%)

Stair walking	0(0.00%)
Instructors meeting fidelity criteria n (%):	Fidelity met: 4(66.67%) Work in progress: 2(33.33%) Not met: 0(0.00%)
Flexibility (cool down)	
Calf strength	4(66.67%)
Back of thigh stretch	5(83.33%)
Instructors meeting fidelity criteria n (%):	Fidelity met: 3(50.00%) Work in progress: 0(0.00%) Not met: 3(50.00%)

2. Fidelity to core OEP principles

Observers determined whether fidelity was met for each of the core OEP principles across all exercise domains (e.g. strength, balance). Fidelity descriptors and counts (%) for each rating are shown in table 8 below. Fidelity ranged across the 12 principles. Instructors were good communicators and had developed session plans that allowed OEP exercises to form the basis for creative dance sequences. Instructors were generally providing accurate visual demonstrations and drew on meaningful and motivational language throughout class. However, instructors did not always link class exercises to the home exercise booklets or remind participants how to safely put on and take off ankle weights. Pre-class checks about health status were also variable.

Effective observation of participants and offering exercise alternatives and progressions had lower fidelity, with 50% and 66.7% of instructors meeting a 'work in progress' level, respectively. Variability emerged across principles six and seven (building sequences gradually and performing exercises to an appropriate duration) with a third of instructors achieving fidelity and a third meeting a 'work in progress' level. Fidelity was not met for three principles (25%), with instructors demonstrating fidelity at least in part to all other principles.

Table 8. Counts (%) for fidelity level met against each of the 12 core OEP principles

Principle Number	Principle Description	Fidelity met (%)	Mainly met (%)	Work in progress	Not met (%)
1	Session plan aligns with best practice content: OEP exercises formed basis of creative sequences	6(100.00%)	0(0.00%)	0(0.00%)	0(0.00%)
2	Pre-class checks and new participants with health status check since last session. Seeking feedback on home exercise programme and successes/exercise questions*	2(33.33%)	2(33.33%)	0(0.00%)	1(16.67%)
3	Planned for issue of home exercise booklets and advised participants how to put on and take off ankle cuff weights safely (for home use and in group sessions)*	2(33.33%)	0(0.00%)	2(33.33%)	1(16.67%)

4	Set up start position for exercise within components as part of the sequence.	0(0.00%)	4(66.67%)	2(33.33%)	0(0.00%)
5	Accurate visual demonstrations and named the exercises to support home exercise.	1(16.67%)	4(66.67%)	1(16.67%)	0(0.00%)
6	Built sequences gradually, ensuring each stage was understood before progressing.	2(33.33%)	2(33.33%)	2(33.33%)	0(0.00%)
7	Performed exercises to an appropriate duration to be effective.	2(33.33%)	2(33.33%)	2(33.33%)	0(0.00%)
8	Effectively observed participants and reinforced technique points at regular intervals.	1(16.67%)	2(33.33%)	3(50.00%)	0(0.00%)
9	Offered alternatives, progressions, and adaptations.	0(0.00%)	1(16.67%)	4(66.67%)	1(16.67%)
10	Used effective verbal and non-verbal instructions; simply, with clarity, spoke audibly, gestures big and bold and used appropriately.	5(83.33%)	1(16.67%)	0(0.00%)	0(0.00%)
11	Remained aware of all transitionary movements	0(0.00%)	4(66.67%)	2(33.33%)	0(0.00%)
12	Used meaningful, motivating language to nurture confidence, encourage progression and promote benefits of progressed strength and balance exercises as part of dance sequences.	4(66.67%)	0(0.00%)	2(33.33%)	0(0.00%)

*Observer unable to observe initial conversations for one instructor

Cost analysis

Council costing data showed that nine instructors attended the funded S&S Dance training day, with eight delivering classes. Attendance at the Otago Leaders Qualification (a pre-requisite for the S&S Dance training day) was subsidised for eight instructors, with one instructor already possessing the qualification. Following the training, 12 weekly classes were delivered by the instructors. Accurate estimates of current class attendance were not available. However, the number of participants per class ranged from five to 30 (based on the instructor cost analysis data), so a mean estimate of 12 participants per class was used in the calculations below.

Fixed costs, including the curriculum development, training delivery, and instructor recruitment cost **£9,025.** The variable costs for one instructor to launch one S&S Dance class totalled **£1100.28**, with this cost incrementally reducing as the number of classes delivered by the same instructor increased. The cost to maintain these classes was substantially lower, approximately **£38.28** for one class over a second year, with this cost mirrored across the number of classes delivered (table 9).

Table 9. Fixed and variable costs to Hampshire County Council per instructor, by the number of S&S Dance classes delivered

Fixed setup costs				Total
Curriculum development*	Creative day venue hire	Otago Leaders programme venue hire	Facebook advertisement to recruit instructors	
£7,900	£350	£700	£75	£9,025

*Includes the costs of the fidelity visit and S&S training instructor time for the creative day

Variable Costs		Year 1: One Class		Year 1: Two classes		Year 2: One Class		Year 2: Two Classes	
Type of cost	Unit cost	No. of units	Total cost	No. of units	Total cost	No. of units	Total cost	No. of units	Total cost
Instructor Otago Leader training	£252	1	£252	1	£252	0	£0	0	£0
Ankle weights, per class participant	£30	12	£360	12	£360	0	£0	0	£0
Booklets, per class participant	£3.19	12	£38.28	24	£76.56	12	£38.28	24	£76.56
Pump priming*	£250	1	£250	2	£350	0	£0	0	£0
Advertisement	£200	1	£200	2	£400	0	£0	0	£0
Total:			£1100.28		£1438.56 (£719.28 per class)		£38.28		£76.56
Total per session:			£24.45		£15.98		£0.85		£0.85
Total per class participant:			£91.69		£59.94		£3.19		£3.19

*£250 for first class, £100 for subsequent classes. Based on instructor holding classes 45 weeks per year, with 12 participants. Council staff member time to support the set up and daily management of the classes has not been included as a resource within this calculation.

Instructors

In total, six instructors provided cost and income data (although two instructors deliver classes together, which was accounted for in the analyses). Four instructors provided complete data, two provided incomplete data which has been included where possible. As a result of small sample sizes (n=1 for S&S to Music, n=2 to OEP) and incomplete data, an accurate cost picture was not possible for these programmes. However, many of the costs have overlap, although there was some evidence that the fees for class participants and hall hire costs were lower for OEP than other programmes. The cost of an annual music license would not be included for OEP classes.

We have reported cost and income breakdowns for one S&S Dance class over two years, assuming that weekly sessions are delivered over 45 weeks of the year (table 10). Generally, instructors reported high initial set up costs, including equipment, headsets, laptops/tablets, and a card reader, with the initial expenses totalling over £1000 for two instructors. This is a one-off set-up fee and will demonstrate diminishing impact as more classes are added.

Average net income for each of the weekly sessions (£14.57) was lower than the inflation adjusted values of the Public Health England ROI tool (approximately £40 per hour) when a single class is delivered. However, an incremental rise in income was shown when an additional class was delivered each year (£36.81 per hour per class). Initial training and class setup costs are not included within year two costs, allowing the net income generated to continue to increase over time (£32.39 and £46.28, see table 10).

Table 10. Income generated and costs accrued per class for instructors, using incremental data

		Year 1: One Class		Year 1: Two Classes		Year 2: One Class		Year 2: Two Classes	
Type of cost	**Unit cost**	**No. of units**	**Total cost**	**No. of units**	**Total cost**	**No. of units**	**Total cost**	**No. of units**	**Total cost**
Variable costs									
Room hire[a]	£30	45	£1350	90	£2700	45	£1350	90	£2700
Refreshments	£3.33	45	£149.85	90	£299.70	45	£149.85	90	£299.70
Travel to classes	£2.50	45	£112.50	90	£225	45	£112.50	90	£225
Fixed costs									
Instructor Otago Leader training	£252	1	£252	1	£252	0	£0	0	£0
Annual CPD (paid annually)[b]	£150	1	£150	1	£150	1	£150	1	£150
Professional insurance (paid annually)	£200	1	£200	1	£200	1	£200	1	£200
Music license (paid annually)	£600	1	£600	1	£600	1	£600	1	£600
Equipment and setup costs[c]	£500	1	£500	1	£500	0	£0	0	£0
Class advertisement	£50	1	£50	2	£100	0	£0	0	£0
Other annual costs[d]	£300	1	£300	1	£300	1	£300	1	£300
Income									
Class fee*	£8	540	-£4320	1080	-£8640	540	-£4320	1080	-£8640
Total:			-£655.65		-£3313.30		-£1457.65		-£4165.30
Total per session:			-£14.57		-£36.81		-£32.39		-£46.28

*Based on instructor holding classes 45 weeks per year, with 12 participants. [a]Average hall hire per session, ranging from 1 hour to 1.5 hours including use of kitchen facilities; [b]Average cost of courses attended to maintain professional qualification and skills (paid for by instructor external to the council), [c]To purchase class equipment/ props, instructor equipment, including headsets, a laptop, card reader; [d]Including equipment replacement, props, materials, card reader fees, Microsoft office license

Qualitative outcomes

Acceptability

Interviews were conducted with 16 class participants from across each of the three exercise programmes (S&S Dance =11, S&S to Music = 1, OEP = 4). Demographics and class type attended are provided in table 11 below:

Table 11. Demographic information of class participants completing qualitative interviews.

Participant ID	Class type	Gender	Age	IMD	Falls in past 3 months	Interview length (minutes)
001	S&S Dance	Male	80	10	No	20:00
002	S&S Dance	Female	67	8	Yes	41:32
003	S&S Dance	Female	74	10	No	23:14
004	S&S Dance	Female	76	9	No	29:00
005	S&S Dance	Male	77	5	No	31:59
006	S&S Dance	Female	73	7	No	26:47
007	S&S Dance	Male	76	2	No	22:43
008	S&S Dance	Female	67	7	No	25:11
009	S&S Dance	Female	85	7	No	25:25
010	S&S Dance	Female	78	5	No	19:33
011	S&S Dance	Male	83	9	No	15:20
012	S&S to Music	Female	74	8	Yes	52:05
013	OEP	Female	81	10	Yes	37:59
014	OEP	Female	75	3	No	37:10
015	OEP	Female	75	9	No	29:35
016	OEP	Female	70	9	Yes	26:46

Interview data for class participants across exercise programmes were analysed collectively as there was significant overlap in the responses provided, regardless of programme type. Differences that emerged between programmes are highlighted within the text.

Analysis of the interview data revealed four main themes: **(1) Motivations, (2) Programme experiences, (3) Markers of success, and (4) Sustaining participation.** Sub-themes were identified within each theme and are presented in table 12 below. Exemplifying quotes for each subtheme can be found in Appendix 3.

Table 12. Thematic analysis of qualitative interview data for class participants across all three programmes

Main theme	Subthemes
Motivations	Building strength and balance
	Preventing falls and building confidence
	Sustaining current health
	Social connection
	Dance element is a draw
Programme Experiences	Dance element is valued

	Physical and social benefits observable
	Attendance and attrition
	Noticeable absence of men
Markers of success	Social aspect highly valued
	Observed benefits as motivators to continue
	Fun and varied classes are successful
	Instructor style is key
Sustaining participation	Instructors perceived as highly skilled
	Geographic disparities impact reach
	More options for progression
	High cost but value for money

Motivations

Class participants reported holistic motivations to join the classes, ranging from wanting to prevent falls and build confidence post-falls, promoting continued good health, to reducing social isolation and loneliness. Differences in participants' motivations for attending varied by programme type; sustaining current health emerged as a common motivator for participants of the S&S Dance programme in contrast to participants in the OEP and S&S to Music class, for whom falls prevention, recovery from a recent fall, or improving confidence post-fall were often primary motivators. For some, this was the first time they were exposed to an exercise class and were uncertain what to expect. The dance format in particular served as a draw to join the S&S Dance classes:

> *"I've done loads of different exercise in in my past, but I'm always drawn to dance exercise. So I've always done… I'm someone who would do dance, aerobic style dance or dance classes rather than circuits, even if I joined the gym" Participant 008.*

Programme experiences

For most participants, the classes met their initial expectations. The music and dance elements of S&S Dance classes were highly valued and for some, the strength portion of the class was the least enjoyable aspect. However, these participants understood the benefits of combining dance with strength and balance exercises. Some participants expected a greater emphasis on the dance portion of the S&S Dance class:

> *"I think I had expected it to be slightly more dance-y than it is. But I can see when you're doing the strength exercises you, you can't really do those with dance, you know, because we use weights" Participant 003.*

Across all programmes, many noted improvements in their strength and balance, which in turn led to enhanced confidence in daily activities. Multiple class participants had regained lost mobility following a fall and many highlighted the role of the classes in building friendships, with the weekly interactions combatting loneliness for some. Of note, the OEP elements helped to increase bodily awareness, which included thinking about how to safely carry out everyday tasks:

> *"So this class is a little bit of a reminder for me, you know, think about what you're doing first. Is there a better way of picking that up from the floor? You know, it's just simple stuff that you don't think about until it's brought to your attention again." Participant 002.*

Family commitments, holidays, and appointments meant that class attendance was not always consistent. Factors that led to class attrition included difficulty with transport (i.e. the venue being difficult to get to), the class being too intense or poorly matched to ability, the length of class being too long, and the instructors approach feeling too authoritative. For those engaging in OEP, the instructors' style was key to retention, as some felt the classes could become less enjoyable over time given the repetitive nature of the exercises. Finally, all male participants interviewed (all from S&S Dance) recognised that there were few men engaging in the classes and felt this may be due to the dance element. However, this did not prevent them from attending.

Markers of success

Opportunities to socialise post-class (i.e. tea and coffee) were highly valued, enhancing the enjoyment of classes and serving as motivators to continue. Participants felt strongly that observing the benefits of the class, through improved physical outcomes, was important for sustaining attendance. Measurable improvements from the evaluation data collection allowed participants to observe progress over time, which reinforced attendance:

> *"She reassessed me two weeks ago I think it was and my performance had gone up by 50%. So yeah, yeah, that was... that was really pleasing. So I thought, yeah, I'll keep going at this." Participant 003.*

Other important factors included fun and varied sessions (especially for S&S Dance), and accessible locations and timeslots. Additionally, instructor rapport and communication skills were key reasons for continuing with classes, with attendees valuing the wider skillsets of instructors (i.e. physiotherapy background). Feeling that their instructor was competent, listened and adapted exercises to each participant, and demonstrated qualities beyond fidelity including warmth and care was important to the success of classes.

Sustaining participation

Participants felt that highly qualified professionals were delivering the classes which was a significant draw for participants, particularly for those whose instructors who were also physiotherapists. Some noted that there were few classes within their local area and that they were travelling long distances to get to their class. Many noted that the S&S Dance and OEP classes should be offered in all areas across Hampshire county, however, one participant felt that there may be a tension between recruiting highly qualified instructors and expanding delivery. An appropriate level of progression was also considered important, within each class and across the S&S suite. This included a recommendation for more challenging class types, whilst recognising that a rapid within-class progression may be daunting for some. Participants found the class costly, but most saw the value in attending and were happy to continue paying at the current rates:

> *"It's like £40. Which I know that doesn't seem a lot to most people, but the sort of people that usually go to these classes are pensioners. So you sort of have to think, oh, is it worth it financially? Well, yes, at the moment for me it is. It's a must. If you see what I mean, to get going." Participant 012.*

Implementation – maintenance

Interviews were conducted with eight instructors (across all three programmes) and three staff members from Hampshire County Council. This included two instructors delivering all programme types, two delivering OEP only, and 4 delivering S&S Dance only. All council staff held posts within the Public Health team and were involved in the development and delivery of the S&S Dance curriculum. To retain anonymity, demographic data and class types have not been included.

Table 13. Length of interviews for instructors and Hampshire County Council staff completing qualitative interviews.

Participant ID	Interview length (minutes)
Instructor 001	59:28
Instructor 002	34:05
Instructor 003	37:33
Instructor 004	54:18
Instructor 005	48:53
Instructor 006	41:29
Instructor 007	21:19
Instructor 008	33:25
Council stakeholder 001	48:44
Council stakeholder 002	46:47
Council stakeholder 003	46:13

Instructor data were analysed collectively to determine if discrepancies between the programmes emerged. Significant thematic overlap was observed between the programmes, barring experiences of the S&S Dance training course. Thematic differences between programmes are highlighted within the text. Following analysis of both instructor and council interviews, it became clear that similar themes emerged and have therefore been presented together.

Five main themes emerged across instructor and council staff interviews: **(1) Motivations, (2) Development experiences, (3) Programme Delivery, (4) Strategies for Success, and (5) Sustainability.** The themes highlight the delivery journey for the S&S Dance curriculum, with motivations, strategies for success and sustainability emerging across all class types. Sub-themes were identified within each theme and are presented by stakeholder group in table 14 below. Exemplifying quotes for each subtheme can be found in Appendices 4 and 5.

Table 14. Thematic analysis of qualitative interview data for instructors and council staff across all three programmes

Main theme	Subthemes by group	
	Instructors	Council Staff
Motivations	Filling market gap	Increasing falls prevention offer
	Expanding class offerings	Improving mental and physical wellbeing
	Aligning with council to give validity	Building evidence base

		Aligning with local and national priorities
Development experiences with S&S Dance	Flexible curriculum caused uncertainty	Discussions helped align expectations between stakeholders
	Struggled without exemplars	Less structured curriculum than expected
	More support and CPD required	Stringent eligibility criteria for instructors
	Importance of instructor background	Limited stakeholder inclusion
	Role of social support	Happy with curriculum outcome
Programme Delivery	Creative element is enjoyable	Curriculum structure challenged instructors
	Value of adding social activity	Less reach and diversity than expected
	Participant factors impact instructor confidence	Substantial time and effort
Strategies for success	Standing out from other community classes	Pilot and existing networks built confidence
	Building local networks is key	Stringent eligibility meant high quality classes
	Requirement for Council support	Cohesive team approach with single point of contact is supportive
	Data collection promotes motivation	
	Lack of confidence to continue data collection	
Sustainability	Enjoyment as motivator	Continue supporting all developed classes
	Hub model for participant progression	Fidelity linked to CPD
	Increasing costs and high time investment	Considerations around freelance model
	Financial support is needed	Recognising role of financial support
		National rollout considerations

CPD: continuing professional development

Motivations

Council

The council's motivations for developing the S&S Dance programme aimed to target multiple aspects of health and wellbeing including reducing falls risk, improving mental wellbeing, and reducing social isolation, correlating with the motivations of class participants. Similarly, dance was chosen as an exercise format to increase the variety of falls prevention classes offered. An important question for the council was whether the newly developed S&S Dance curriculum could be branded as a falls prevention programme. Council

stakeholders felt strongly that the curriculum development should also be evidence-based and reproducible, sitting within the wider context of local and national public health priorities for healthy ageing:

> *"So I think from the Council's perspective, you know, there's huge advantages to having increasing numbers of the population who are taking part in an evidence-based falls prevention programme." Council stakeholder 003.*

Instructors

Instructors' motivations ranged across class types, although commonalities were noted. For those completing the S&S Dance training, it was felt that there was a gap in the market for a novel type of falls prevention class, which would attract a wider range of demographics in their local area. However, all instructors were motivated to help prevent falls risk in older adults and saw the classes and their roles within the community as important for this. Instructors noted that expanding the types of classes they are able to offer was a significant driver for attending the Otago Leaders, S&S to Music and S&S Dance training. Being able to badge classes with the council S&S label was also a significant motivator, giving validity to the quality of the class delivered:

> *"So people can see the Council involvement and I think they feel reassured that it's a Council and NHS badged scheme. So that has really, really proved it. And it's not just us saying it." Instructor 002.*

Development experiences with S&S Dance

Council

Council staff described their experiences around the development of the S&S Dance curriculum and delivery of a complex intervention. An important part of the development process involved ongoing discussions with the curriculum developer around the core components of S&S Dance, ensuring that both parties expectations aligned. An area of difference that arose was around the development of general curriculum guidelines rather than a formulaic curriculum, with the council's original goal being fidelity to the OEP. The curriculum was felt to be less structured than expected, instead focussing on fostering creativity of the instructors. The instructor criteria were also more stringent than the council had expected (not open to all OEP trained instructors), meaning fewer instructors were eligible to train:

> *"I think what may be less aligned to what we originally set out would be the eligibility criteria for some of the dance teachers or the, you know, the people who have become steady and strong dance instructors in that they had to be dance teachers already." Council stakeholder 001*

In response to proposing more stringent instructor eligibility criteria for S&S Dance, it was noted that the curriculum developer offered S&S to Music training for ineligible instructors who had expressed interest in S&S Dance, although this was not well-attended. A further observation made by two council stakeholders was that the curriculum development process could have included a wider stakeholder group, allowing greater inclusion and input from a variety of voices.

Instructors

All instructors in the sample had undergone the Otago Leader training, which was very well received. Instructors described this training as thorough and comprehensive, and felt it gave them a good foundation to build upon with S&S Dance training (for instructors eligible to do this). Instructors delivering S&S Dance felt that the creative training day was a positive experience in general, but the curriculum required amending to maximise the training experience. The instructors struggled with the flexible nature of the curriculum and how to build core OEP principles into a dance class. Whilst it was recognised that the trainers wanted to allow

creative freedom for the instructors, all instructors found it difficult to know how to design a class without an example structure. For some, this caused uncertainty and reduced their confidence to deliver the class:

> *"So I think to begin with, I wasn't really sure how I was going to approach that, and I think because of that, I was a bit slow in setting up my classes. And yeah, there was an element of uncertainty and it felt like a, a big undertaking. Although I always felt I knew the steady and strong stuff well, I didn't feel that I had a full understanding of how I would do this in a, in a sort of dance pathway." Instructor 008*

Suggestions for improving the training included providing example syllabi, observing another instructor's S&S Dance class, and encouraging instructors to bring lesson plans to the creative session for feedback. Most felt that one day of training was not sufficient and that ongoing CPD or top-up days would reinforce learnings and provide a space for ongoing improvements. Similarly, instructors felt that greater communication and support could have been provided by the trainers to answer questions and concerns the instructors had as they began class delivery.

All instructors described the positive impact that social support had had on their confidence in developing and delivering a S&S Dance class following the training. Being able to go to other instructors for suggestions or examples, whilst being able to share difficulties and concerns were key elements of the peer network that instructors found supportive. Although the instructors established this network themselves, it was felt that this network could be formalised so that all instructors undertaking the S&S Dance training could support one another.

Programme delivery

Council

Council stakeholders recognised that the less structured nature of the S&S Dance curriculum made initial delivery of the programme challenging for instructors, who instead lent on peer support for guidance. It was felt that fewer classes were delivered than expected, and that there was limited breadth of demographics and geography:

> *"We certainly had a cluster of classes that is not across the breadth of Hampshire, it's very much kind of along the south of Hampshire. Which is obviously, you know, it's always disappointing, isn't it, that you don't get.. that the full picture and classes at the moment aren't available to that many people in terms of the geographical spread" Council stakeholder 001.*

Delivery of all programmes required substantial time investment from the council, with support provided for advertising and class set up. This was made difficult by a lack of available room space for classes and high hall hire costs.

Instructors

Dance styles used within the S&S Dance classes were primarily jazz and contemporary, alongside choreographed pieces to different music genres. Instructors enjoyed the creative element of delivering the classes, which included the use of props for some (such as hats, scarves, canes). Most instructors delivered a single choreography that progressed over a term and had observed that the dance element typically attracted female participants. Most instructors integrated social elements into their choreography and into the class as a whole, valuing the social time for tea/coffee following class (regardless of programme type). However, finding appropriate hall space to deliver the class, alongside providing a social space presented a challenge.

The impacts of participant needs on class delivery were noted by most instructors. For those delivering S&S Dance, it was recognised that this style of class offered an exercise option for less frail older adults. Some described finding it difficult to adapt the class to meet all fitness levels, particularly within larger classes. Other difficulties included participants struggling to retain verbal information and managing health and

medication complexities. For some, this caused anxiety and there was consensus that additional CPD would be helpful (topic suggestions included navigating medical conditions and eligibility screening, managing differing frailty levels within class, and supporting participants to get off the ground following a fall).

For S&S Dance instructors, there was recognition that their background and training experiences contributed to how readily they applied the OEP principles. Those coming from dance backgrounds described finding it more difficult to integrate the OEP exercises and dance choreography than those from structured exercise backgrounds, given that structured approaches to strength and balance may not align with dance training and approaches:

> *"But I think it's quite easy to get bogged down with the structure because dance doesn't structure things in the same strength and balance and mobility kind of way. You're always strengthening and mobilising and balancing within one exercise. And I think that side of things I've found quite tricky." Instructor 004.*

During the interviews, two instructors noted that they were Postural Stability Instructors (PSI) and incorporated elements of the Falls Management Exercise (FaME) programme (45). Although there is significant overlap between FaME and the OEP across the strength and balance exercises, the instructors were including additional FaME components (including getting up from the floor and Tai Chi) in their classes that are not core features of the OEP.

Strategies for success

Council

All council stakeholders felt that having well-defined, existing networks of instructors and NHS links fostered successful delivery of the S&S Dance training. As the council had previously run a pilot of the S&S Dance programme, this provided confidence that there would be interested and available instructors. Similarly, confidence was gleaned from the stringent eligibility criteria that classes would be taught well. Having a well-established team within the council who already support the wider S&S service was paramount to facilitating the newly developed S&S Dance training and delivering the S&S to Music course. Although there was a single point of contact within the council who supported the instructors, it was felt that a cohesive team approach (including the marketing department) was needed to help successfully launch and sustain classes.

Instructors

Most S&S Dance instructors felt it was important to be involved in the evaluation, to enhance marketability if the classes were shown to be effective. Instructors felt this would differentiate their classes from other community dance classes (e.g. Zumba). Regardless of programme type, instructors noted the importance of building networks to improve the chance of class success; not only with participants to build a client base and community, but also with other providers, such as GP surgeries or NHS falls prevention services:

> *"I've tried to say to the other instructors, set up your networks because for the basic level of the class [OEP], the basic, steady and strong, you need to be getting in with your local physio department, your GPs, telling them about the classes." Instructor 001.*

Most instructors recognised the importance of data collection and feedback from participants (quantitative and qualitative), including use of data collection to promote their classes and improve participant motivation. Qualitative feedback was often collected informally and used to amend the classes. However, many instructors did not feel confident to continue collecting data formally, listing time constraints and lack of knowledge on how to use outcome measures as factors. All instructors felt it had been helpful to have a researcher come to class to collect the data, rather than the instructor collecting the data themselves.

Sustainability

Council

For the council, there was a drive to continue delivering the newly developed S&S Dance classes, even if it could not be badged as a falls prevention programme. It was felt that a mechanism for monitoring fidelity would be helpful to ensure that instructors are continuing to deliver classes within the given format. To facilitate this, there was recognition that instructors need ongoing continuing professional development (CPD) to maintain competency and fidelity to all class curriculums, but that barriers including time and cost (including lost income) would impact attendance. Ongoing CPD was felt to be particularly important for the S&S Dance instructors, given that it is a newly developed curriculum and delivered with a focus on instructor creativity rather than a highly structured curriculum. All stakeholders felt it was important for the council to support instructor CPD, with two stakeholders suggesting that free top-up training may facilitate this, encouraging attendance by reducing financial barriers:

> *"It should be sustainable. Yeah, I mean I think in terms of you know, when you look at it in terms of budgets, it's actually quite a small budget to put into something [CPD] that could potentially have the impact that we would hope it would have. It needs support from the Council on going to keep that, keep that momentum for them." Council stakeholder 001*

Decisions around the sustainability of the current self-employed/freelance model were also discussed and in line with the comments raised by the instructors, it was felt that additional financial support may be needed. The reasons for this were twofold; to support instructors financially given rising costs and to ensure class prices remain affordable for the general public. It was noted that given the small pool of eligible instructors, offering future S&S Dance training would unlikely expand the number of classes offered. However, the council felt strongly that if the curriculum were shown to reduce falls risk, that the programme would be made widely accessible and part of a wider, perhaps national rollout. Council stakeholders noted that there is a single curriculum developer who is able to deliver the current S&S Dance training, with two stakeholders highlighting this may have implications for wider rollout.

Instructors

Instructors reported enjoying delivering their respective programmes and felt that seeing participant progress and being able to provide a falls prevention offer reinforced their drive to continue. Instructors felt that having their own hub model, in which participants could progress to other classes when able, means that participants will be retained and able to benefit from a "linked-up" service. There was also a sense that fidelity to the OEP principles might slip as instructors are guided by the wants of class participants to ensure sustainability.

Instructors felt that the cost to income ratio for the classes would be a significant factor in whether they continued teaching. All instructors noted that the costs to run each class were increasing alongside increased costs of room hire, music licensing, CPD, and use of additional equipment such as props for the S&S Dance classes. For many, this aligned with large amounts of time spent preparing for classes and screening new class participants, meaning their take home wage did not feel sustainable:

> *"OK it sounds quite nice, there's £50 there or something after all costs. But actually with the admin and the prep and the finding music and all of those extra things, and any CPD we have to do, that really whittles down to not very much at all. And it's finding a way for us to actually make it into a proper living." Instructor 004.*

Some noted that they had been encouraged to keep class prices as low as possible, but that this wasn't realistic in the face of rising instructor costs. There was general consensus that to ensure the sustainability of classes in the future, financial support would be needed from the council, for example by helping to subsidize class cost for participants and CPD attendance for instructors. Additionally, all instructors noted that the

availability and accessibility of hall space was a problem, particularly as most instructors felt they required a hall with easy parking for participants and a space to provide refreshments.

For all instructors, having the council's support was key to sustainability. Specifically, the marketing support and pump priming fund (covering initial hall hire costs and equipment) meant that instructors were able to establish their classes without significant financial costs up front. All instructors found the council's administrative support very helpful, noting that the team supporting this programme had been very responsive and supportive.

Discussion and recommendations

This evaluation used a mixed methods approach to answer the primary research questions (nested within the RE-AIM framework) that were co-developed between the PHIRST-Light research team, Hampshire County Council and local stakeholders. Our findings are discussed by RE-AIM concept and research question below.

Reach: *Who takes part in the programmes? How many people attend and do the programmes reach different populations?*

Understanding the reach of the S&S Dance programme was an important aspect of the evaluation for the local authority. Our analysis of demographic data across the S&S Dance, S&S to Music, and OEP classes showed no significant differences in key demographic domains (e.g. ethnicity, postcode). Class participants were predominantly White British women from highly affluent areas, regardless of class type. Classes also tended to cluster in specific areas in the county that were geographically accessible for instructors. This is not hugely unexpected; 2021 Census data show that 92.6% of Hampshire's population are from 'White' ethnic groups (46) whilst Hampshire is among the least deprived higher tier local authorities in England (16 out of 151;(47)). However, there is variability across the county, with certain urban areas demonstrating greater ethnic diversity and deprivation. For example, over 23% of the population in Rushmoor (in the north of the county) are from non-White British ethnic groups, whilst Havant (in the south of the county) is the 119th most deprived local authority in England (out of 317, IMD local authority rankings). Of note, over 10,575 individuals in Rushmoor identify as Nepalese (46), a community that was not reflected in the data collected.

Developing culturally flexible approaches to falls prevention has been highlighted as a priority (48), particularly in groups that are traditionally less engaged in physical activity. The development of a flexible S&S Dance curriculum has several potential benefits related to reach. The approach allows instructors to draw from a wide range of dance and music styles, meaning that classes could be tailored to specific communities or cultural groups. This is important as the cultural relevance of music can create a stronger connection with a dance activity, making it more enjoyable (49). A recent study also found that making a dance class both gender and culture specific led to high class satisfaction and attendance rates (50). Drawing from the interview data, most instructors described working within similar dance styles, primarily jazz and contemporary dance, that may appeal to certain demographics. Both male class participants and instructors recognised that the dance element of the class may be less likely to appeal to men, although it was unclear if this related to the styles currently offered or all forms of dance. Consideration could therefore be given to how to expand the range of styles offered, perhaps through collaboration with community organisations, making them culturally relevant and enhancing accessibility for a wider range of the population. The eligibility criteria for dance instructors to deliver S&S Dance may also need consideration within this context.

Additional factors that may affect reach were identified across different data sources. It was noted that the S&S Dance curriculum and eligibility criteria (for both participants and instructors) were developed by two stakeholders, likely limiting inclusion of a wide range of stakeholder input and diverse voices. Similarly, the stringent instructor eligibility criteria may inhibit who is able to train as an instructor in the future, perhaps

reducing the ability to reach certain communities. Currently, all classes are delivered by self-employed instructors, meaning that classes will be delivered where they are sustainable and may provide maximal income. Active strategies on the part of the local authority may be required to support wider delivery and therefore reach of classes. This might include subsidising travel and class costs for instructors to deliver classes in more deprived areas. Classes were delivered across areas with a range of deprivation levels (although almost half were delivered in the highest IMD quintile) however, class participants were predominantly from highly affluent areas. Consideration should be given to the possibility that those from more affluent areas may travel to more deprived areas to engage in the classes, reducing the class reach.

Recommendations

- Use active strategies to encourage reach to less affluent or diverse communities, including subsidising instructor travel and class costs.
- Work with community organisations to understand how to enhance accessibility of S&S Dance across diverse groups and review dance instructor eligibility criteria, for example by working with council engagement and development officers to build connections with community organisations
- Future iterations of the curriculum should include a greater range of stakeholders, including individuals with lived experience or class participant voices.

Effectiveness: *Does S&S Dance improve functional fitness? Are the outcomes of the newly delivered programmes comparable to S&S to Music and the OEP?*

Our findings show significant improvements in proxy measures of falls risk for S&S Dance from baseline, 12- and 24-weeks, although we would caution further interpretation given the small sample sizes of the S&S Dance group. Improvements were seen across all three measures of strength and balance alongside improvements in the confidence participants have in their balance. Post-hoc tests demonstrated that significant improvements for most measures were found across the three timepoints. A recent meta-analysis reported significant improvements in perceived and actual balance in older adults participating in an OEP training programme (15). Although sessions of greater than 30 minutes delivered in a group format were more effective at improving actual and perceived balance (than those delivered individually and under 30 minutes), the weekly frequency of the sessions (1 to 5 times per week) and the length time engaging in OEP (from 12 to 52 weeks) were not significant contributors. Each of the S&S Dance classes in the current study was delivered once per week, with rolling attendance encouraged for class participants. It is encouraging that the current delivery model aligns with these findings, but further analysis with larger datasets is needed to explore this with greater certainty. We are unable to say whether a ceiling affect for functional improvements is observed after 24-weeks or whether these gains continue. This is an important consideration given that participation in S&S Dance requires higher levels of strength and balance at entry and participants may be more motivated to sustain their current level of functioning.

Reductions in subjective loneliness were also observed for S&S Dance participants, aligning with the local authority's broader motivations for developing the curriculum. The effectiveness of delivering the OEP in a group setting within the community has been well documented for falls risk reduction (15,51,52). Our findings suggest that S&S Dance could also foster a sense of social connectedness for participants. Qualitative studies with older adults participating in group exercise found that exercise itself motivated participants to socialise and provided a sense of belonging, enjoyment, and community, reducing feelings of loneliness (53,54). Similarly, our qualitative data show that seeking social connection was a common motivator across all classes,

with the provision of a 'tea and coffee' social space following classes being highly valued. Given that loneliness and social isolation play a significant role in physical and psychosocial problems for older adults, this is an important facet of S&S Dance (and all programmes) to encourage.

Recommendations

- Continue additional data collection to bolster sample size, allowing cross programme comparisons and exploration of dose and ceiling effects
- Actively encourage components within S&S Dance (and other programmes) that aim to develop and strengthen social cohesion, for example a tea and coffee space.

Acceptability: *What are class attendees' perceptions of the programmes? What are some of the reasons for dropout?*

Interview data revealed that generally, all classes (across the three programmes) were acceptable to class participants. The dance element of S&S Dance was a draw for participants beyond the strength and balance elements included in the classes and appealed to participants who had previous experience of dance or group exercise classes. Multiple S&S Dance participants felt that the strength components of the class were the least enjoyable, but that they understood the reason behind their inclusion. A primary critique of OEP is the repetitive nature of the programme, which can become 'boring' to participants once they become familiar with the exercises (55). Delivering the OEP programme within a social group setting is thought to make the class more enjoyable (55), echoing the social motivations of class participants in this study. Similarly, adding the dance element appeared to make the S&S Dance classes fun and varied, which participants responded well to. Although limited by small sample sizes, 63.2% of S&S Dance participants were considered regular attenders (attended over 75% of classes), compared to 50.0% for S&S to Music and 55.6% for OEP. There may be many factors impacting attendance rates including ill health and injury, but our data suggest that the addition of dance to OEP supports regular attendance.

Differences in participants' motivations for attending varied by programme type. Sustaining current health emerged as a common motivator for participants of the S&S Dance programme. This was in contrast to participants in the OEP and S&S to Music class, for whom falls prevention, recovery from a recent fall, or improving confidence post-fall were primary motivators. As the entry requirements for the S&S Dance class require higher levels of current strength and balance than OEP and S&S to Music, S&S Dance participants may view outcomes from the class differently. Specifically, they may not be aiming to prevent falls but may instead be looking to enhance or sustain their current fitness level through exercise. Although not a formal component of the evaluation, the research team received early feedback from S&S Dance class participants that the term 'falls prevention programme' was off-putting in the evaluation recruitment materials (i.e. participant information sheet and consent form), and did not reflect the reasons behind their participation in the programme. As a result, the research team amended the recruitment materials to capture the wider motivations for participation, including sustaining current fitness levels. This is an important consideration for future marketing of the S&S Dance programme; although the classes are grounded in a traditional falls prevention exercise programme, badging the classes in this way might not align with the motivations or goals of the class participants and may alienate potential participants.

Instructor style and knowledge emerged as significant contributors to acceptability. Participants noted that the instructor's style, skillset, and experience were draws to attending the class and reinforced attendance over time. Participants needed assurance that instructors would be able to work with physical limitations and injuries, make appropriate adaptations, and tailor the progression of the classes. Literature has demonstrated

the links between instructor expertise and enthusiasm and participant satisfaction with and adherence to training programmes in older adults (56). Within this, expertise in anatomy, exercise science, and gerontological issues were key (56). Promoting the skillset of the instructors as having specialist knowledge of evidence-based interventions for older adults may help to distinguish the classes from other community programmes, improving uptake and adherence. Similarly, these were areas that instructors felt they required additional support for, with CPD perhaps necessary to support learning.

Ill-health, injury, and caring responsibilities were some of the reasons impacting attendance and class drop out, in line with other literature on falls prevention classes (57). Aspects of the programmes that demonstrated mixed acceptability were the distance/locations of the classes and the cost. Multiple participants described travelling long distances to reach classes and some found venues to be inaccessible if they did not have available parking or public transport. Although the cost of the classes was perceived to be high, participants found it to be good value. However, participants were predominantly from affluent areas and may therefore not experience cost as a barrier to participation. Consideration should be given to the acceptability of the class cost to those in less affluent areas, perhaps through outreach activities or a mechanism for public feedback (i.e. surveys).

Recommendations

- Review marketing materials to ensure wider range of motivations (i.e. maintaining current fitness) are captured for the S&S Dance classes.
- Consider promotion of instructors' skillsets, expertise, and qualifications within marketing materials
- Create list of accessible venues for future classes, creating relationships with these venues as the local authority for future class use.
- Conduct outreach with less affluent regions to understand acceptable costing of classes

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Implementation – Fidelity: *What is delivered as part of the S&S Dance curriculum and is it delivered as intended?*

The curriculum was designed to facilitate creative agency on the part of the instructors. As demonstrated in the TIDiER checklist, all warm-up and cool-down exercises should be included in each class, but it is not a requirement for instructors to include all core strength and balance exercises. Rather, fidelity was determined by alignment to OEP best-practice principles when delivering strength and balance components. Most instructors met fidelity to the curriculum across the range of OEP exercise components (i.e. warm-up, strength, balance). There was particularly high fidelity for the strength component, with over 80% of instructors meeting fidelity criteria, but lower fidelity to the cool-down component (50% meeting fidelity). There was overlap in the strength and balance exercises delivered across the observed classes, with the same six exercises being delivered in over two-thirds of the classes. This could be due to a wide range of factors, including instructor comfort and preference. However, during the qualitative interviews with instructors, it was noted that an informal peer support network had been established by the instructors to share lesson plans and advice, perhaps fostering similarities between what is delivered across the classes.

Fidelity was also assessed across 12 core OEP principles. Instructors demonstrated high fidelity to principles that are core to exercise instruction, such as use of meaningful and motivating language alongside effective verbal and non-verbal instructions. Instructors also demonstrated strong alignment with best practice by integrating OEP at the core of their creative sequences. However, instructors were less confident in certain

areas, such as linking exercises to home booklets, effectively observing participants and offering alternatives and progressions. This may relate to difficulties that instructors reported incorporating OEP exercises and skills into dance choreography, particularly for those instructors with less experience delivering manualised exercise programmes. Some instructors were new to the OEP delivery, having only completed the OEP Leaders training immediately prior to the S&S Dance creative day. As a result, the structure and delivery of OEP may have been a novel format and there may have been uncertainty around how to do this on the part of the instructors. This is particularly salient as it was noted by multiple instructors (coming from dance backgrounds) that integration of structured exercises was at odds with their usual practice and dance training. Similarly, there was variability in fidelity to other OEP principles, including building sequences gradually and completing exercises for an appropriate duration. This may mean that class participants are receiving varied levels of OEP input. Understanding how to improve fidelity in these areas is particularly important given that class participants felt strongly that appropriate within-class and programme wide progression was a key factor in sustaining participation.

Interviews with instructors revealed that although the S&S Dance creative day was well received, greater clarity and structure was needed within the curriculum, alongside increased support with class planning and opportunities for observation and feedback. Further, the flexible nature of the curriculum reduced instructor confidence to deliver the classes. Clearer guidance on how to integrate the OEP principles into class plans and dance choreography may help to bolster fidelity and improve instructor confidence. This will also help to ensure participants are getting maximal gains from the delivered OEP exercises and ensure that effectiveness and reproducibility of the intervention is maximised. Fidelity could be enhanced through activities suggested by the instructors, including: 1) accessible CPD, 2) open channels of communication with the S&S Dance trainers to answer questions and concerns whilst classes are being established, 3) greater opportunities for peer observation and feedback, and 4) formalising a peer support network into a community of practice. Similar to other literature with instructors of falls prevention classes (58), it was felt that a formal community of practice would allow for sharing of best practice, class plans and ideas, alongside ways to overcome difficulties and could be something the curriculum developer or local authority facilitate following training. This may be particularly beneficial for instructors coming from a dance background who may be delivering a highly structured exercise programme for the first time. Suggested CPD topics included a creative day refresher to reinforce learnings, navigating the complexities of medical conditions and the impact these have upon participation, in addition to managing a range of frailty levels within a class.

It is worth highlighting that the S&S Dance curriculum does not incorporate all exercises of the OEP, but rather adheres to OEP principles. This suggests the class would be better described as an OEP-informed or OEP-based intervention. During interviews, it was noted that some instructors were PSI trained and were including non-OEP elements (FaME) in their classes, including getting up from the floor and Tai Chi. This is a pragmatic evaluation in which community instructors are drawing on their experiences and qualifications to develop their classes. Similarly, the flexible nature of the S&S Dance curriculum meant that creative agency was given to instructors. Given these factors, class delivery in the community may therefore vary and may make it harder to compare outcomes.

Recommendations

- Review creative day training curriculum to provide clearer guidance on how to structure a S&S Dance class, with examples.
- Enhance CPD offering with topics relevant to those working with older adults, including management of medications and frailty within class.
- Offer creative day refresher courses, to review curriculum and provide the opportunity for peer and trainer feedback.
- Formalise a community of practice network for instructors who receive the S&S Dance training and encourage peer observation.

Implementation – Maintenance: *What does it take to deliver the programmes and is this sustainable?*

Both instructor and local authority perspectives were key to understanding successful implementation of the programmes and how to ensure this is sustainable. For the council, the process of developing the S&S Dance curriculum was a learning experience, which highlighted the importance of aligning expectations between the commissioning organisation and contractor. The council identified multiple factors for success which helped to implement S&S Dance, including drawing on existing networks and experiences with the programme pilot, taking a cohesive team approach (i.e. working with multiple departments) whilst maintaining a single point of contact for instructor communications. Local authority support was paramount to instructors launching their S&S Dance classes, particularly the administrative and marketing support provided by the Public Health team. This support was resource and time intensive for the local authority; given that much of this support was provided within the scope of a staff member's role, it was difficult to quantify the specific time resource dedicated to each exercise programme. However, instructors felt strongly that the relationship they had built with the council was a key factor for successful implementation of the classes.

Other factors were considered important for sustainability of the programmes. For both instructors and the local authority, there was recognition of the need to balance fidelity to OEP principles (across the groups) with the community delivery model (i.e. self-employed instructors). Similarly, many instructors felt a tension between wanting to keep the cost of classes as low as possible, whilst facing increasing costs of running classes (e.g. hall hire). It was noted that the costs of delivering the S&S Dance and S&S to Music classes were higher for instructors as they were required to purchase a music license and some included props within their choreography. As the S&S Dance class encourages creative agency, instructors reported spending more time on session planning and choreography than they would for other classes. This led to a sense that the classes, especially S&S Dance, might not be financially viable without raising class prices or receiving financial support from the local authority. In a similar vein, instructors found the cost of attending CPD, either through income lost or lack of time reimbursement, to be a barrier. Instructors enjoy delivering the classes and are motivated to attend CPD. Encouraging regular attendance at CPD events is needed to improve/maintain the quality and fidelity of programmes and as a result, consideration should be given to reducing the financial barriers for instructors (for example, through a free top-up S&S Dance training day).

Data collection, particularly for functional measures, emerged as a mechanism for monitoring class progression and reinforcing attendance. Participants described finding feedback on their performance 'motivating', encouraging them to continue with the class. Measurable activity has emerged as an important source of external motivation in other studies on falls prevention programmes, allowing participants to recognise improvements in their functioning and encouraging adherence to exercise programmes (59). Instructors also recognised the utility of collecting strength and balance data but many were unsure how to do this. Time and knowledge were perceived barriers to continuing data collection beyond the evaluation period, echoing other studies which have attempted to integrate data collection into community programmes (60). Training in what data to collect and how to do this would be a helpful step to enhance instructor confidence, with consideration given to making data collection sustainable for the council and instructors. It may be helpful to reframe data collection as an embedded part of class delivery, helping to motivate and retain participants, rather than as an additional activity.

One of the local authority's goals for the S&S Dance programme was to develop a reproducible and evidence-based falls prevention curriculum. As part of the local authority's tender, a single contractor developed/delivered the S&S Dance training and conducted fidelity checks. The implications for wider rollout should be considered, which may include working with the contractor to make the curriculum accessible using either an off-the-shelf approach or a train-the-trainer model.

Recommendations

- Maintain dedicated local authority staff member as key contact for instructors.
- Support ongoing CPD participation by reducing financial barriers to attendance, such as offering a free top-up S&S Dance training day or online training within or outside of working hours
- Continue use of outcome measures at defined timepoints to provide participants with feedback on their progress and to enhance motivation to continue attending classes.
- Offer training on data collection for existing and new instructors, promoting the idea of embedded data collection as best practice. This may also require financial reimbursement for instructor time.
- Work with curriculum developer to make the S&S Dance curriculum accessible for wider rollout.

Cost analysis: *How much did it cost the council to deliver the S&S Dance programme? How much does it cost instructors to deliver all programmes?*

Council cost data revealed that the cost of developing the S&S Dance training and launching 12 classes was relatively high (approximately £1100.28 per class). This also excluded fixed setup costs including the cost of developing the curriculum and the training day. It is difficult to compare these costs to the published literature as costings are based on the OEP being delivered at patient homes, paying for instructor time, and travel expenses, unlike the current model (42). The council use a pump priming model, which encourages already trained instructors to deliver additional classes. This results in incremental cost savings for the council as the number of classes increases and would be more cost effective than training new instructors to deliver classes. It was unclear why many instructors chose to deliver just one S&S Dance class rather than multiple throughout the week, which may be helpful to explore to support a more cost-effective model for increasing classes in the community. It is worth noting within this model that S&S Dance class sizes varied significantly, ranging from 5 to 30 class participants (class of 30 delivered by two instructors jointly). Similarly, the classes offer rolling attendance, meaning that class participants can remain at classes indefinitely. As the classes are newly developed, it is difficult to estimate how long participants will continue engaging in S&S Dance over the life course of each class. Should the council wish to explore this further, it may be helpful to request average attendance data from instructors. This would support more accurate cost analysis.

There are additional costs for delivering the S&S to Music and Dance classes above those of OEP. Specifically, instructors reported needing commercial music licenses for the S&S to Music and S&S Dance classes, adding to the instructors cost per class, although this cost may be reduced by delivery of additional classes. Instructor feedback suggests that they are investing greater amounts of administrative/preparatory time (i.e. to choreograph routines) in S&S Dance than for other class types. Although most have set their prices to match other the programmes that they deliver (approx. £7-8), this is higher than OEP classes delivered across the county (61) and instructors felt that they may need to increase these prices to account for the elevated costs of delivering these classes. The high costs of setting up as an instructor alongside ongoing monthly fixed costs (i.e. music subscriptions) mean that instructors must maximise the number of classes that they deliver to account for this. This would align with the proposed hub model described by instructors. Although local data are not available, comparison to national data on hall hire costs used in 2018 estimates of falls prevention and community exercise programme costs (42) suggests a significant increase over the past six years; national average hall hire costs were £15 in 2018, currently averaging approximately £30 within our sample in Hampshire (it is worth noting that costs within the county vary and we have assumed the national average reflects 2018 costs in Hampshire). Rising hall hire costs were noted by both instructors and council

stakeholders as concerns for class costing. Although already mentioned as recommendations, subsidisation of class costs may be required given the additional costs to instructors of delivering S&S Dance. Similarly, to reduce hall hire costs, the council could explore relationship building with local community organisations or district/borough council facilities (e.g. leisure centres) to determine whether reduced rates could be negotiated.

Important to note is that many of the S&S Dance instructors within the study were offering a social space following their classes, reducing their hourly earnings further if required to pay for room hire and refreshments. The provision of a social space meets the holistic needs of class participants but adds to instructor costs and reduces net income. As previously recommended, support may be needed for instructors to ensure that the social aspect of the classes is sustainable.

Finally, stringent instructor eligibility criteria has likely led to a high quality class delivery, but may significantly limit future recruitment of instructors in Hampshire. At present, the local authority's model provides financial support for instructors to train and set up classes across all three programmes, with lower costs for an existing instructor to establish a new class than to train a new instructor. The local authority may consider future sustainability of the programmes by investing in existing instructors, incentivising continued delivery of existing classes or establishing new classes, and promoting instructor retention.

Recommendations

- Explore factors that prevent additional class delivery through surveys amongst the instructor network.
- Consider subsidising hall hire and establishing relationships with local community halls and other district/borough council facilities (e.g. leisure centres) to reduce hall hire rates.
- Incentivise continued delivery of existing classes and support new class delivery, promoting instructor retention. This could be through awards, CPD, or monetary incentives.

Strengths and limitations

This evaluation has multiple strengths. Firstly, the research was underpinned by the widely utilised RE-AIM model, allowing a range of implementation factors to be explored across multiple stakeholder groups. Data triangulation allowed us to combine multiple sources of information, including qualitative interviews, quantitative data from class participants, and costing data to understand barriers and facilitators to implementing the exercise programmes. The breadth of data collected across all key stakeholder groups allowed us to identify barriers and facilitators to delivery of the programmes, providing important learnings for future work. Further, inclusion of a PPI group, which comprised older adults currently participating in a falls prevention programme with Hampshire County Council, was instrumental in guiding the research approach, data collection tools, and developing a dissemination strategy for the findings from this evaluation.

Limitations are also noted. This evaluation used a prospective but pragmatic design to capture the presented data. Fewer instructors and class participants were recruited than expected, with multiple classes ending prior to the 24-week follow up. This reduced variability in our quantitative data collection (55% of 24-week participant data were derived from one class) and limited the sample sizes for our analyses across the three timepoints; our original data analysis plan included cross comparisons between the three different programmes for functional and psychosocial outcome data, however, we were unable to complete these analyses given the sample sizes. To bolster recruitment, the research team hired a local research assistant to collect data at each class and worked closely with the local authority to recruit instructors into the evaluation. An agreement was established between the local authority and instructors receiving the S&S Dance training to deliver classes in the community and participate in the evaluation, meaning that the majority of S&S Dance

instructors participated. However, existing OEP instructors did not engage in the evaluation, despite multiple requests via newsletters and emails to participate. Future work to monitor programme outcomes would likely benefit from a similar agreement between the local authority and individual instructors, to encourage engagement. It is worth noting that we can only report data on the class participants who agreed to participate in the evaluation. There is therefore inherent self-selection bias in the data, which may not represent participants of all classes.

As this evaluation was conducted in a real-world setting, the outcomes observed were likely impacted by other factors outside of the control of the evaluators. For example, it was identified that two instructors (delivering classes together) were incorporating elements of the FaME programme into their classes. This programme includes upper body exercises and floor activities not included in the OEP, although there is overlap in the lower body strength and balance exercises. Additionally, the checklist used to determine fidelity outcomes has not been validated, although it was based on the expert guidance of the S&S Dance curriculum developers. Fidelity scores were derived from a single observation by one expert observer, meaning that there could have been subjective bias present in the scoring.

Conclusion

This prospective, mixed-methods evaluation explored the effectiveness of the newly developed S&S Dance programme on functional fitness. By capturing a wide variety of data sources across multiple stakeholder groups, the factors that impact implementation of local falls prevention programmes was explored. The S&S Dance programme elicited significant improvements in strength and balance between baseline and 24-weeks, providing confidence in the utility of this programme. However, the sample was small and lacked diverse representation. Given low recruitment numbers, we were unable to compare these outcomes to those of local OEP and S&S to Music class data.

Generally, all classes were well received, with dance emerging as a significant draw to the classes. Instructors felt that the S&S Dance training could be improved through greater clarity within the curriculum and the provision of example session plans. This may also improve instructor fidelity to core OEP principles within the S&S Dance classes. Although the initial cost of developing the S&S Dance programme was high, the costs per class will diminish over time. Instructors reported rising costs, which may necessitate increase class prices.

Instructors would benefit from ongoing CPD and an established community of practice, requiring ongoing support from the council. Data collection should be embedded within the programmes, to monitor progress and motivate class participants. Council support was key for sustainability of the programmes, with instructors relying on council contacts and badging to establish classes. Consideration should be given to active engagement strategies for diverse populations who remain under-enrolled in these programmes.

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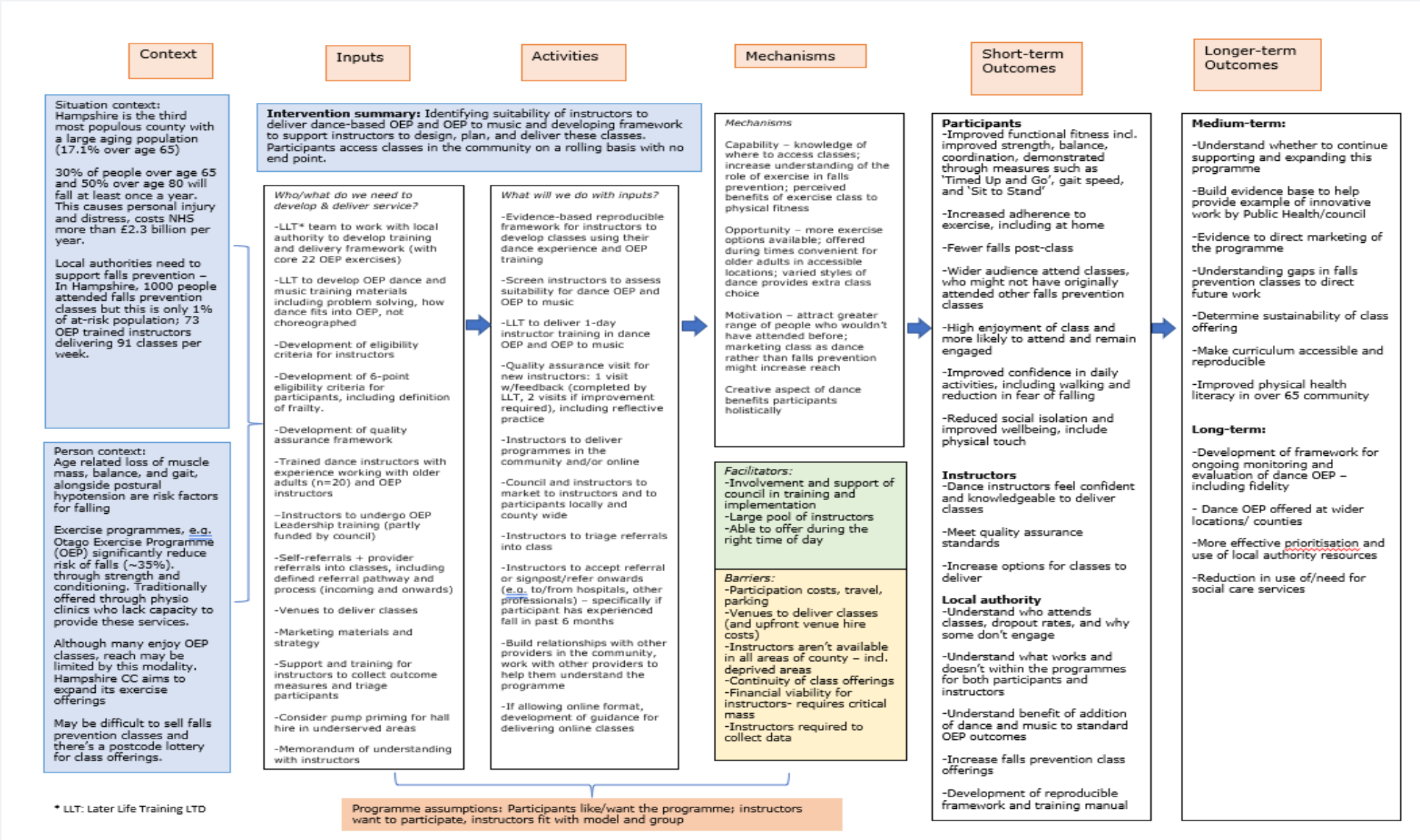
Appendix 1. Logic Model



Appendix 2. TIDieR Checklist

The TIDieR (Template for Intervention Description and Replication) Checklist*:

Item number	Item	Where located **	
		Primary paper (page or appendix number)	Other † (details)
	BRIEF NAME		
1.	Steady and Strong (S&S) Dance	PHIRST Light Final Report – pg 1	_____
	WHY		
2.	The **Otago Exercise Programme (OEP)**, is a widely evidenced exercise programme aiming to reduce falls-related injuries and absolute falls risk in older adults. The programme incorporates a series of 17 strength and balance exercises and can be completed within a home, outpatient, or group setting. Despite the substantial evidence base supporting its use to reduce falls, OEP may not be an attractive option for everyone, including those who are less frail. At present, there is limited evidence that dance-based interventions reduce the rate of falls, however, there is more robust support for improvements in fall-related risk factors. Dance may offer an alternative approach to reducing falls risk that is enjoyable and promotes greater adherence. Hampshire County Council commissioned the development of a S&S Dance curriculum that incorporates the principles and exercises from OEP within a dance class, with the aims of increasing their falls prevention offering across the county.	PHIRST Light Final Report – pg 1	_____
	WHAT		
3.	**Materials:** Paper copies of the following materials are provided to instructors during the creative training day:	_____	Otago Dance - Guidance for Dance

	• Later Life Training OEP Leader Handbook or New Zealand Otago Home Exercise Manual. • Otago continuum criteria guidance/presentation • Quality Assurance/reflective practice criteria • Clinical Frailty Scale • Venue/session risk assessment template • Dance OEP enrolment questionnaire/Health and Suitability Questionnaire • Handout 1 – when to recognise participants no longer suitable for S&S Dance. The following materials are provided to participants when they join the S&S Dance class: • Ankle weights • Home exercise booklet		Teachers & Scheme of Work
4.	To deliver the S&S Dance classes, dance instructors must first have undertaken the OEP Leaders Programme. Instructors then attend a one-day creative training day to learn how to build OEP exercises into a dance class. Trained instructors then establish classes within the community and are committed to receiving a quality assurance and fidelity visit between 1-3 months following the start of class.	PHIRST Light Final Report	_____
	WHO PROVIDED		
5.	**Dance Teacher leading Otago Dance Criteria:** Dance teachers wishing to undertake OEP Leader training with a view to leading OEP exercises as a dance-based activity are required to: 1. Hold a minimum of a Level 4 Qualification/Diploma in Dance Education from an awarding body recognised by Ofqual 2. AND have experience either working with older adults either teaching dance or in non dance based activities in community settings. **Dancers with Professional Experience leading Otago Dance Criteria:** Dancers with Professional Experience wishing to undertake OEP Leader training with a view to leading Otago exercises as a dance-based activity are required to: 1. Have successfully passed a practical dance examination at vocational level with a recognised Ofqual dance examining board and have completed study units in Safe Teaching Practice, Professional Conduct, Class Planning and Evaluation, Legal Requirements and Risk assessments.	_____	Teacher Eligibility Criteria document – pg 2

	2. AND have experience either working with older adults either teaching dance or in non dance based activities in community settings.		
	HOW		
6.	S&S Dance is delivered in a group setting, with instructors setting safe and manageable class size limits (up to approximately 15 participants per instructor). Home exercise booklets are provided to class participants and they are encouraged to complete OEP exercises at home.	_____	Otago Dance - Guidance for Dance Teachers & Scheme of Work
	WHERE		
7.	Classes are delivered at local community venues, including village halls and leisure centres.	_____	Otago Dance - Guidance for Dance Teachers & Scheme of Work – pg 32
	WHEN and HOW MUCH		
8.	Classes are delivered in a group format once per week for one hour. Classes are delivered at the same time and location each week. Weekly class attendance is rolling with no defined duration of exposure to the intervention. Exercise intensity is tailored to each participant's functional ability.	_____	Otago Dance - Guidance for Dance Teachers & Scheme of Work – pg 8
	TAILORING		
9.	Instructors can adapt use of the core OEP exercises to meet the needs of the class participants and to fit within the class plan, as described below: • Warm up and cool down delivered without tailoring: all exercises expected. • Strength and balance exercises: Standard OEP requires delivery of 17 exercises. In the current curriculum, the number of exercises can be selected at an instructor's discretion, as long as they are delivered in line with the OEP principles. • Dance choreography: Designed and delivered by instructor, with adaptations made to individual needs. Progression options offered.	_____	Otago Dance - Guidance for Dance Teachers & Scheme of Work

	MODIFICATIONS		
10.‡	Modifications were not made during the course of the study.		
	HOW WELL		
11.	Fidelity was assessed during planned quality assurance visits using a checklist developed in collaboration with the curriculum developers. Visits were conducted by the curriculum developers who had expertise in delivery of OEP and dance-based interventions. Fidelity was met if instructors adhered to core Otago principles and delivered Otago exercises as described in the curriculum. Feedback was provided to instructors following the visit regarding ways to improve class quality and fidelity to the OEP criteria.	PHIRST Light Final Report	

Appendix 3. Quotes from participant interviews

Main themes	Subthemes	Quotes
Motivations	Building strength and balance	"They did all these kind of exercises with me at the hospital and then gave me the exercises to come home and do and, but they were to do with balance, and nothing was helping, the exercises weren't helping. So then this popped up and it was to do with balance and strength. And I thought, well, that's just what I want." (Participant 014)
	Preventing falls and building confidence	"Well, I think you know, getting older, old people seem to fall down more. And so anything that can prevent falls or, as they do, try and strengthen your wrists and ankles, then if you do have a fall hopefully you don't break anything. So it seems like a good idea." (Participant 001)
	Sustaining current health	"I mean I think now it's made me more determined to keep the exercise up and do it because I truly believe that the older you get you know what's the saying? You don't use it, you lose it. So yes, so yeah, you know, think about doing more exercise." (Participant 004)
	Social connection	"Well, I just really it was to meet other people. It's very difficult when you're I mean, I've got a husband, but my husband's still working because he's a bit younger than me. So he's got another year or so to do, and I just thought it would be an opportunity to, to meet people and just do something a bit, you know, different." (Participant 002)
	Dance element is a draw	"I've done loads of different exercise in in my past, but I'm always drawn to dance exercise. So I've always done... I'm someone who would do dance,

		aerobic style dance or dance classes rather than circuits, even if I joined the gym." (Participant 008)
Programme Experiences	Dance element is valued	"I was a dancer anyway, so I used to go to ballroom dancing and modern jive. That all stopped with lockdown and never quite got going again. Well, I found the dance one [class] very... well I find both [classes] enjoyable." (Participant 007)
	Physical and social benefits observable	"I immediately found I was getting increased mobility, particularly of the openness of my thighs, that I'd, you know, the hip joint things, in that I felt that it was doing me good, and I was almost... after a couple of sessions noticing that I walked better most of the time." (Participant 011)
	Noticeable absence of men	"And then again, it's sort of like my husband's got to take me and he's got to bring me home again and he's got to work out whether he stays there or whether he comes home or what he does, and I don't want to put too much pressure on him." (Participant 012)
	Noticeable absence of men	"In fact, I was the only guy amongst 30 women in that class. so I thought the other class might be more geared to men, which it is, I think, although there's women who have joined that class too." (Participant 001)
Markers of success	Social aspect highly valued	"In fact, I've made friends with all of them. And because I don't sit quiet, I'm afraid I like to be friendly and I talk to everybody. And in fact, the Monday group we've got is perfect because it's.. we all know each other now. I'm hopeless with names, but we all know each other, you know. And it's good. We have a bit of a laugh as well."

		(Participant 015)
	Observed benefits as motivators to continue	"I was a lot faster when [name] came, she pleased me no end because she said I had improved my mobility by 30%." (Participant 014)
	Fun and varied classes are successful	"It's fun! [Instructor name] makes it fun. And some of the other people there are, you know, they make it fun as well." (Participant 003)
	Instructor style is key	"I've never been to a boot camp, but I mean, it was very intense. And not fun. I do think you can get your message across with being a bit light hearted. She was very good. I mean, I'm not, you know, I'm not suggesting that in any way that she was not good at what she does. She was very good at it, but it was just the approach we had basically." (Participant 013)
Sustaining participation	Instructors perceived as highly skilled	"I'd say they were strict but kind, but they explained everything, you know why you were doing these particular exercises. What it was going to do to help that sort of thing. I mean, she said to me like, oh, in a few weeks' time, you're really going to notice a difference." (Participant 012)
	Geographic disparities impact reach	"There was a lady this week who I did the class with yesterday and she drives 1/2 an hour, 35 minutes. She can't find one in her area, which surprised me. So, you know, maybe even more around the county, you know, would be useful" (Participant 001)
	More options for progression	"I mean this certainly has given me what I needed at the time, but possibly now that I am a bit more flexible and whatever, I might look at

		something different. I don't know. Is there a progression from this basic one?" (Participant 015)
	High cost but value for money	"It's like £40. Which I know that doesn't seem a lot to most people, but the sort of people that usually go to these classes are pensioners. So you sort of have to think, oh, is it worth it financially? Well, yes, at the moment for me it is. It's a must. If you see what I mean, to get going." (Participant 012)

Appendix 4. Quotes from council stakeholder interviews

Council stakeholders

Main Themes	Subthemes	Example Quotes
Motivation	Increasing falls prevention offer	"And then we wanted to start exploring a little bit more of not just the number of classes that we've got available in Hampshire, but the quality and I guess the inequalities that we're experiencing within Hampshire and so therefore we wanted to have a look now to try and expand what that offer was. So to improve that diversity of the offer for falls prevention. And not just rely on that one single programme that we had available." (Council stakeholder 001)
	Improving mental and physical wellbeing	"Yeah, really it was about encouraging strength and balance and also that... creating awareness about how important strength and balance is as we get older and providing, you know, classes where people could go and they knew they would be doing the right exercises." (Council stakeholder 002)
	Building evidence base	"You know, and it was really about delivering evidence-based falls prevention classes. So that you could go to either an Otago or a PSI class. Across the county and be able to access those classes." (Council stakeholder 002)
	Aligning with local and national priorities for healthy ageing	"So falls is a priority from a public health perspective, but also from a Council who provides, you know services social care services to older adults because we know that falls is one of those events that can often trigger people from, you know, being independent to needing support at home as well.

		And you know, we know that there's evidence that suggests that you know we can prevent not all falls, but you know falls are something that is preventable. So I think from Council's perspective, you know, there's huge advantages to having increasing numbers of the population who are taking part in an evidence-based falls prevention programme. " (Council stakeholder 003)
Development experiences with S&S Dance	Discussions helped align expectations between stakeholders	"We certainly had, we certainly… worked, and you know, had lots of discussions to get it to a stage where we were both happy with the information, with the kind of level of detail in it." (Council stakeholder 003)
	Less structured curriculum than expected	"There was part of us that was expecting a very sort of almost formulaic, like a like a curriculum. And that wasn't what was developed. It was more a set of guidelines and gave that scope and creativity over to the instructors to use Otago to underpin the way that they choreographed and structured a class and the progression." (Council stakeholder 002)
	Stringent eligibility criteria for instructors	"I think what may be less aligned to what we originally set out would be the eligibility criteria for some of the dance teachers or the, you know, the people who have become Steady and Strong Dance instructors in that they had to be dance teachers already." (Council stakeholder 001)
	Limited stakeholder inclusion	"I think probably for, not quite sure quite what the word is, but transparency it would be better if there were a bigger stakeholder group looking at that. And looking at…. that could look, like, and being a, you know, a bit more able to question the choices, the decisions

		around some of those criteria, and what the programme looks like." (Council stakeholder 002)
	Happy with curriculum outcome	"I do think what we have got now as if I was to imagine a Steady and Strong Dance class is probably exactly what I imagined it would look like, which is great." (Council stakeholder 001)
Programme Delivery	Curriculum structure challenged instructors	"So I think that that kind of, that lack of real like "here's, you know, here's this book. And here's, you know, here's how you'll teach class one, class two, class three" for some was really great, and for others.... Yeah, of course, some of that, that tension and I guess a lack of confidence in what they would then be delivering" (Council stakeholder 002)
	Less reach and diversity than expected	"We certainly had a cluster of classes that is not across the breadth of Hampshire, it's very much kind of along the south of Hampshire. Which is obviously, you know, it's always disappointing, isn't it, that you don't get that the full picture and classes at the moment aren't available to that many people in terms of the geographical spread." (Council stakeholder 001)
	Substantial time and effort	"Perhaps a wider set of venues that we knew would be suitable in advance. It felt like it was a bit of a scrabble trying to find somewhere. We had venues that were, we previously used in weekdays, but we were looking weekend training and that limited the pool of venues that were suitable and available." (Council stakeholder 002)
Strategies for success	Pilot and existing networks built confidence	"So we were building upon something that already existed and had the expertise locally to support that, not just in the individual that

		did some of the teaching, but also the groups that you guys had set up for some of the design elements so we had some of those tasks completed, right focus groups, didn't we in the early days and we knew some of those experts that could really help shape that and learn from the original version what worked well and what could be possibly do differently this time. And so that was, that was really... a real good facilitator to it." (Council stakeholder 001)
	Stringent eligibility criteria	"So I feel like the recruitment process was really tight and short and the participant, the instructor eligibility criteria was much stricter than we had perhaps envisaged initially. Personally I think it was probably the right thing, particularly now you look back and I think, well actually if they had have had that experience, if they hadn't have gone through that pre-training they would have struggled way more." (Council stakeholder 002)
	Cohesive team approach	"You know, we did receive fantastic support as I said from procurement and from our comms colleagues and our marketing colleagues and things, who you know who really supported in in getting off the ground." (Council stakeholder 003)
Sustainability	Continue supporting all developed classes	"It should be sustainable. Yeah, I mean I think in terms of you know, when you look at it in terms of budgets, it's actually quite a small budget to put into something that could potentially have the impact that we would hope it would have. It needs support from the Council on going to keep that, keep that momentum for them." (Council stakeholder 001)

	Fidelity linked to CPD	"I think that those sorts of classes are only going to be really sustainable and have the fidelity and the impact that you want, if instructors are supported regularly with, with top up training." (Council stakeholder 002)
	Considerations around freelance model	"This is an independent model. So it's got to be both. I mean the instructors have to be able to make a living. Or make it, make it work financially basically for them. But obviously, we obviously we're not hugely keen that prices go through the roof, and it becomes very difficult for you know, people to, particularly people on low incomes to access, but obviously it's an instructors choice how much they charge. I suppose. Yes. If the demand for the classes goes down a lot. Then that's going to be a tricky thing to manage because it again, it wouldn't be financially sustainable." (Council stakeholder 003)
	Recognising role of financial support	"We fund half their Otago costs, and we also give a kind of seed funding or pump priming grants to instructors just while they get going, because we imagine that, you know, when you first start a class, you're you may be, you may... it may work really well, but you're unlikely to have it full for a little while, while word gets around. And while people start coming and enjoying it so. Yeah. So I suppose that's a facilitator in terms of making it sustainable is making sure those startup costs, if we, you know, do need new instructors or if there are new instructors in the future are not, you know, a barrier to starting." (Council stakeholder 003)
	Eligibility criteria limits sustainability	"I think the challenge with this sustainability is still going to be that

		eligibility criteria. So we were probably trying to recruit for, I can't put a number of months on it, but yeah, a good part of the year into the programme just within Hampshire. And still had just less than 10 instructors, if I remember off the top of my head. So in terms of this, you know that real sustainability of being able to run a Steady and Strong Dance programme year on year on year. It's... that pool is going to probably dry up quicker than Steady and Strong as a standard programme." (Council stakeholder 001)
	National rollout considerations	"I guess by virtue of working with one provider to develop the programme we've essentially created two specific experts for it. And so that could possibly both help and hinder [rollout], in the sense that this is where the business now sits, if that makes sense." (Council stakeholder 001)

Appendix 5. Quotes from instructor interviews

Main themes	Subthemes	Example Quotes
Motivations	Filling market gap	"I think there's a huge call for it. Actually, I think it fits a gap that in terms of demographic, especially where I live, there's a huge amount of older people." (Instructor 004)
	Expanding class offerings	"It's really nice to have, like, another dimension in a way of doing things. We have kind of done the PSI and the Otago classes as a standard for quite a long time. And then we were seeing people progress and it was kind of a bit frustrating because we thought we know that these people could do more, but there was nothing that we could.... where there were other classes we might try and encourage them to go to." (Instructor 002)
	Aligning with council to give validity	"And because it's coming from the council, it gives you a validity, which is really, really helpful." (Instructor 004)
Development experiences with S&S Dance	Flexible curriculum caused uncertainty	"I don't feel trained as an... as a steady and strong dance teacher because it was just one short day. However, because I'm already a dance teacher, I'm just applying what I've learnt from that into what I'm doing. So, I do feel confident teaching that if that makes sense, but I felt absolutely terrified. First class, first half of term was just terrifying." (Instructor 004)
	Struggled without exemplars	"It wasn't detailed enough I think for most of us, we needed some specific examples from them and we also needed to show them some pre-done stuff to get them to give us a bit of a critique on it." (Instructor 001)

	More support and CPD required	"I think maybe once a year a CPD module or a workshop, with the other instructors as well. I don't know whether it could be on something like layering up or you know, layering up a sequence or the different ways we could we could deliver the balance component or putting it out there and saying what sort of support would you, what sort of support would you all want more? Would you want to do more?" (Instructor 001)
	Importance of instructor background	"But I think it's quite easy to get bogged down with the structure, because dance doesn't structure things in the same strength and balance and mobility kind of way. You're always strengthening and mobilising and balancing within one exercise. And I think that side of things I've found quite tricky." (Instructor 004)
	Role of social support	"I've found a good network of support myself, which is really good. And that's really helped me so far for training. In that sense, so I learn a lot from them on assessments and things like that. So watching them, how they set their classes up, how they do their assessments, how they get new participants and things like that. But had I not had that support, that sort of insight with them, I'd be floundering really. I don't think I'd go with setting up my own class." (Instructor 005)
Programme Delivery	Creative element is enjoyable	"I think it's very sustainable. It's really good fun. We love doing it and we love the variety." (Instructor 001)
	Value of adding social activity	"People are arriving and doing the first class, then going into have tea and coffee. People arriving early for the second class, so there's a big social.... and that and they love it. Absolutely love it."

		(Instructor 003)
	Participant factors impact instructor confidence	"So actually I think they find it quite difficult if you say "don't do the arms, just concentrate on the legs. But if you want the arms, here are the arms to make it more difficult. Or you can do these arms or these arms and then you have to choose one and there's the other one" that they're a bit like or what was the other one? So, you know, trying to work that differentiation for them is quite tricky. I find it more tricky with this group than I do with other classes that I have possibly." (Instructor 004)
Strategies for success	Standing out from other community classes	"These are evidence-based classes now, you know, and that would be really good for endorsement. We're not just another [community] class that we've devised. We're actually a class that is proven to work." (Instructor 001)
	Building local networks is key	"I've tried to say to the other instructors, set up your networks because for the basic level of the class [OEP], the basic, steady and strong, you need to be getting in with your local physio department, your GPs, telling them about the classes." (Instructor 001)
	Requirement for Council support	"I think the funding to be able to launch the class initially was really helpful and I think the marketing that was done was really helpful to get the interest because it saves... it saved me actually having.... I didn't up doing too much marketing at all because I think whatever was done just caused the class to be very popular, so I think those kind of things were really supportive." (Instructor 007)

	Data collection promotes motivation	"The two ladies that she collected the data from, I mean, I don't know whether she wants to do any more after that, but they both said, "oh, I'm 30% better" or one of them said "I'm better" and that gave them a real boost. Because the nature of it is, that you don't from week to week... you don't know that you're getting any better." (Instructor 003)
	Lack of confidence to continue data collection	"I do think [data collection] would be beneficial and maybe that's something because there was no, we weren't given any sort of training or guidance on that. So that is possibly something that would be useful, would be a sort of template in order for doing that or some sort of guidance about how you would go about that." (Instructor 008)
Sustainability	Enjoyment as motivator	"I absolutely love teaching my class like, I really do. They're a great group and I think like I've seen a lot of improvements in... I know in a few months. But I had seen masses of kind of improvement in their confidence and like I just really enjoy teaching them." (Instructor 007)
	Hub model for participant progression	"So that would be the next stage that I would be looking at for myself is having is having a hub where there's the opportunity to do one to one's, there's an opportunity to progress or regress, reassess." (Instructor 003)
	Increasing costs and high time investment	"Having a music licence and all of that, that costs, and just as with everything, is costing more at the moment. ...the year before we put our prices up because all of our venues increased our hall hires. So we had no option." (Instructor 002)
	Financial support is needed	"I think if we've got keep having CPD that needs to be... we can't be keep

		shelling out for that because we're not earning enough to shell out for that. There's got to be some kind of investment there." (Instructor 004)

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