NOT JUST AN EXERCISE CLASS

Presenting Evidence from Postural Stability Classes



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1. BACKGROUND

Falls and fall-related injuries are common and increasing with an ageing population. People aged 65+ have the highest risk of falling, with 30% falling at least once per year, and 50% of those 80+ falling once per year (NICE, 2013). Falling has significant risks. Falls often result in moderate to severe injury, including head injuries and fractures (Peel et al, 2002). Falling can lead to a reduced quality of life (Stenhagen 2013), with a fear of falling leading to increased isolation, self-limited socialisation and less uptake of activities (Yardley & Smith, 2002). This loss of independence and avoidance of activity contributes to increased risk of poor mental and physical health.

Falls and fall-related injuries also impact family members and Carers of those that fall (Dow, 2013).

In addition to significant personal impact, falls are estimated to cost the NHS more than £2.3billion per year (NICE, 2013). The cost of fragility fractures is approximately £4.4billion per year, £1.1billion of which is spent in social care and £2billion is related to hip fractures. Hip fractures are serious injuries and increase one-year mortality at a rate of between 18% and 33% (Office for Health Improvement and Disparities, 2022).

2. INTRODUCTION

Exercise, particularly that which focuses on balance and functional exercises, has proven to reduce the rate of falls by 25% (Sherrington et al, 2020), and is a costeffective intervention to address falls (Davis, 2010). Kent County Council (KCC) have funded Involve Kent to run Postural Stability Classes (PSC) since 2016, with classes based in North and West Kent. Classes are led by a qualified Postural Stability Instructor (PSI) and last for 36weeks.

At the end of the course, participants are signposted to other local exercise provision and are given exercises to do at home to maintain their condition. PSC combine balance, strength and conditioning exercises with functional exercises inspired by daily activities, for example walking across the room carrying a plate. Classes build strength and teach participants techniques to fall safely to reduce the severity of a fall if it occurs. Classes offer a social opportunity, with each one including time for a tea and a chat during the break.

Data for PSC is collected at 0, 12, 24 and 36-week points to determine condition before, during and at the end of the course of classes. Key markers include how long it takes to sit in a chair and how many times an individual can stand and sit in one minute. There is no data collected after the course has been completed, meaning there is little evidence to show the medium-term impact of classes. Routine data collection does not report on any potential added benefits to classes. This report aims to address the following two gaps in evidence:

- 1.Medium-term benefits of taking part in classes, up to 7-months after completing the course
- 2. Identifying additional benefits beyond improving mobility in participants





3. METHODOLOGY

Quantitative methods were used to collect data through a survey, which was conducted over the telephone by a member of staff to ensure that all questions were fully understood and completed. Some of the sample may have had limited cognitive ability so supporting them in the process was essential for accurate data collection and equal representation.

The sample was made up of 30 people who have completed a full course of postural stability classes, with attendance ranging from 63% to 100%.

This sample was made up of those referred from the voluntary sector (13), primary care (1), family/friend/neighbour (1), social care (4), self (5) and other (6). Most (90%) have had a fall previously. All respondents had completed the course within the previous 7 months.

4. RESULTS

Mobility

Participants rated their mobility as 4.83 on average prior to the class and 6.60 at the end of the class. In the 4-7 months following the class this rating dropped to an average of 5.47, showing a decrease in mobility as time passes, although on average still higher than before joining the class (figure 1). 90% agreed that there were changes in their mobility and the perceived improvements included confidence, feeling stronger and less need to use a walking aid (figure 2).



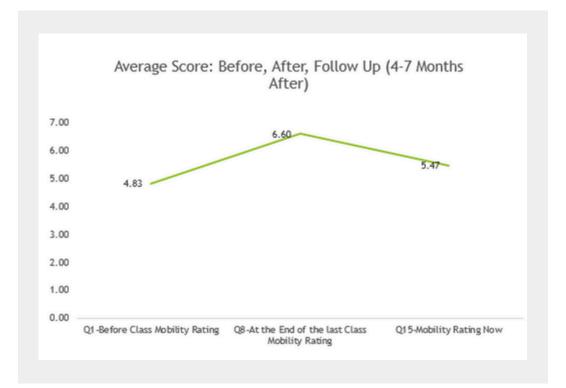


Figure 1: average mobility scores before the class, at completion and 4-7 months later

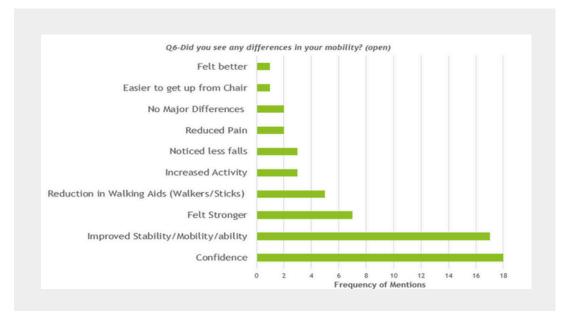


Figure 2: perceived differences in mobility

97% showed an improvement in their mobility score at the end of the course. 67% of participants showed a decreased score in mobility in the 4-7 months following the course competition, but 57% still scored higher than their original mobility score prior to the class. Those who joined another class or continued their exercises showed prolonged raised mobility scores, with those continuing to exercise having an average rating of 5.83 vs those who did not having an average rating of 4.29 (figure 3).



Figure 3: average mobility ratings for those who did/did not continue exercising

Qualitative data highlighted improvements in confidence and reduced need for mobility aids. Confidence also improved access to everyday activities including playing with grandchildren and walking dogs. Everyday tasks such as getting out of a chair became easier and participants could move more freely around their homes.

> "It wasn't long before I felt that I was able to get up out of a chair with less difficulty and I felt more confident with moving around as the pain in my back had lessened."

"Yes, I felt much more confident and can do a lot more that what I used to be able to. I challenge myself more than before like walking the dogs for longer or getting onto the floor to play with my 2year-old granddaughter." "Definitely I feel more confident and have been able to stop using my walker. I now often go into the garden without a walking stick and but still use one when out and about as I feel frightened without having something to hold onto."

Social benefits and enjoyment

100% of participants would recommend the class to others and 100% said that they enjoyed the classes.

The main three things participants liked most about the class were:

- the social aspect
- the exercises
- supportive connections/friendships

Other reasons for enjoying the class included pain relief, the instructor, and having a routine. 17 participants stated they did not enjoy the difficulty of the exercises and 9 said there wasn't any element they didn't enjoy. The main three reasons they would recommend the class were the social aspect, the enjoyment of the class and the effectiveness of the exercises. Other reasons included feeling stronger, feeling more confident and that it is good for stability.

"Yes because they're good for both exercise and building strength and physical confidence, and for building social relationships and bonds."

Participants were more socially active after completing the course, with numbers of those who were isolated/lonely or who only saw family decreasing. Attending groups either occasionally or weekly increased (figure 4). There was an average increase of 13% on self-declared social activities, with 43% being more socially active after the course had ended. 87% said they felt more socially active and 100% agreed they would join a similar class.

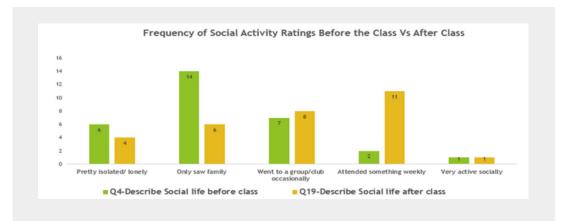


Figure 4: social activity before and after completing PSC

Participants were disappointed when the class came to an end, with some feeling upset and others worried about potential drop in their mobility. Many reported that they would miss the friends they had made (figure 5).

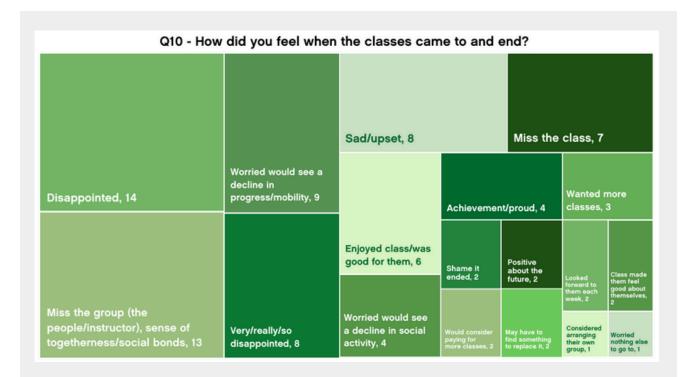


Figure 5: feelings at the conclusion of PSC

Independence and general improvement

100% said that the class helped them and 97% said that it changed their outlook or wellbeing. 67% said that it changed their independence.



Ongoing outcomes

Whilst participants reported several benefits of attending the classes, only 47% joined another class or activity upon conclusion. Those who did join a new class participated in: postural stability maintenance classes (5), assisted gym (4), gym class (1), other balance class (1), yoga class (1) and other classes aimed at 55+ (2). Reasons for joining another group included to get benefits from exercise (9) and for social interaction (6). Those who did not join another group reported not knowing where to find provision (5), having an existing form of exercise (5) or having alternative access to social interaction (4).

23% of participants did not continue to complete exercises at home when classes concluded. Reasons for not continuing included caring responsibilities, loss of motivation, a feeling that life had gotten in the way or that they had started to but eventually stopped. Reasons for continuing included maintaining benefits, knowing it was good for them and not wanting to undo progress. Of those who continued exercises (77%), 9 completed them 'every so often', 6 completed them every other day and 4 did them once per week. Only 2 participants continued to complete the exercises every day.

At the end of the course, 63% of participants felt more active. Before the class, 90% had had a fall. In the period following the conclusion of classes, 50% had had a fall. 57% of those who fell after completing the course were able to get themselves to a standing/safe position. 82% used the skills and techniques learned in class to help move into a safe position. Only 13% of participants felt they no longer worried about falling after completing the course.



5. DISCUSSION

The data collected shows that the classes have a positive impact on mobility, reflecting existing evidence for the use of exercise in falls prevention strategies (for example Sherrington et al, 2020). The completion of classes also improves confidence, day-to-day activities and improves social activity.

The data highlights that there is a drop in mobility ratings 4-7 months after the course has ended, though most maintained heightened mobility. Those who maintained the exercises or joined a new class demonstrate an increased long-term score, whilst those who do not participate in exercises long-term see biggest decreases in mobility. This demonstrates that it is important to continue to exercise, whether at home or in a class, to ensure that improved mobility is maintained.

The findings also highlight the important social aspect of classes and their crucial role in promoting recommendations amongst this group.

The Involve PSC have created an environment where participants feel supported by their peers, benefiting from the camaraderie to help motivate them in exercises and to return week after week. These findings demonstrate the importance of peer support and highlight that Postural Stability classes are 'not just' an exercise class. There is a clear improvement in physical ability, but there is also an equally important social aspect that is a driver for those attending, which has often resulted in participants seeking additional social activity at the end of the course so that they can maintain these support networks.

Despite data showing that there are several benefits to attending PSC, the fear of falling remains a concern. Whilst participants felt more confident, and several used the techniques learned in classes to recover from a fall, they still worried about falling.

6. CONCLUSIONS

This report concludes that PSC are an effective tool to use to reduce the risks associated with falls and that they improve mobility, confidence and social interaction, reflecting existing literature in this field.

Whilst PSC are effective, the findings demonstrate the importance of maintaining a level of physical activity, otherwise benefits can be reversed. The best improvements in mobility were seen in those that completed the course of classes and then went on to continue to participate in exercise. PSC empower individuals to improve their mobility and confidence, but individuals must be encouraged to continue to engage in further activity. Responses showed that not all of those completing classes knew what provision to access once courses concluded. There is scope for PSI and other supporting organisations to support individuals to access further activity to maintain the benefits provided by the initial course of classes, this might be through signposting/referrals or by providing support for those with caring responsibilities amongst other methods.

APPENDIX 1: SURVEY QUESTIONS

1. Before class, how would you have rated your mobility? From 1 - 10

(1 being unable to move safely around the house/ holding onto surfaces for support or mobility aid/ need help getting out of a chair. 5 being generally good moving around the house/ but going out and about concerned with tiredness/ nervous about simple obstacles (curbs, uneven pavement, stairs)/ only going to places you know are easy to access. 10 being no concerns about going out and about confidently).

1 2 3 4 5 6 7 8 9 10

2. Was there anything medically that caused your mobility to be this way?		
Yes		
No		
3. Before this class, did you have any falls/were you worried about falling?		
Yes, I fell	Number of falls	Did you seek seek medical advice following those falls? visit a GP? A&E? how often? were you referred to a fall's clinic at
Yes, I was worried	Why?	all?
No		Was there any point you needed help to get up?

4. How would you describe your social life before the class?			
Pretty isolated/ lonely Own Only saw family Went to a group/club occasionally Attended something weekly Very active socially		Own words:	
5. Dia ya	ou enjoy the class?		
Yes	What did you enjoy most about the classes?		
	What did you enjoy least al	bout the classes?	
	Would you recommend the	e classes to others?	
No	Why?		
6. Did yo	6. Did you see differences in your mobility?		
Yes			
No			
7. Did the class help you in any way?			
Yes			
No			
8. If you had to rate your mobility at the end of the programme? From 1-10 1 being unable to move safely around the house/ holding onto surfaces for support or mobility aid/ need help getting out of a chair. 5 being generally good moving around the house/ but going out and about concerned with tiredness/ nervous about simple obstacles (curbs, uneven pavement, stairs)/ only going to places you know are easy to access. 10 being no concerns going out and about.			

If higher rating, did you do anything different that you felt that you couldn't before? Visit anywhere new? Walk to town? Go shopping? Go to the seaside?			
1 2	2 3 4 5 6 7 8 9	10	
9. Do y	9. Do you feel as though it made any difference to your life?		
Did it change your outlook on life or your general wellbeing?		Yes	Why?
		No	
	Did it change your social life? Did		Why?
you le	el more socially active?	No	
	Did it change your independence?		Why?
	Did the way you felt about getting out and about change?		
10. Hov	10. How did you feel when the class came to an end?		
11 Did	you continue with the everei		2 2
11. Did you continue with the exercises at home?			
Yes	How often?	Why di	d you continue?
No			
12. Did	12. Did you join any other class or group?		
Yes	Name of group/ class	Why di	d you join?
No			

14. Now that you have finished the class, do you feel that the benefits have been sustained? Do you feel the same way physically?		
Yes	Reasons why	
No		
 15. How do you feel about your mobility now? Again, if you had to rate your mobility now what would it be? From 1-10 (1 being unable to move safely around the house/ holding onto surfaces for support or mobility aid/ need help getting out of a chair. 5 being generally good moving around the house/ but going out and about concerned with tiredness/ nervous about simple obstacles (curbs, uneven pavement, stairs)/ only going to places you know are easy to access. 10 being no concerns about going out 		
	t confidently).	
	1 2 3	4 5 6 7 8 9 10
16. Do you feel more active than before the class?		
Yes	Reasons why	
No		
17. Is there anything medically that has changed to cause how you view your mobility now?		
Yes	What has changed?	If no, why has rating changed?
No		
18. Have you had any falls since leaving the class? Or have you been worried about falling since leaving?		
Yes, I fel	I Number of falls	Did you seek seek medical advice following those falls? visit a GP? A&E? how often? were you referred to a fall's clinic at all?

Yes, I v No	was worried	Why?	Was there any point you needed help to get up? Did you use anything that the class taught you to help?
19. Hov	w would you c	lescribe your soc	ial life now, since leaving the class?
Only s Went t Attend	Pretty isolated/ lonelyOwn words:Only saw familyWent to a group/club occasionallyAttended something weeklyVery active socially		
20. do	20. do you feel more able to access social activities because of the class?		
Yes No			
Is there anything else you wish to comment/have your say on? e.g. how the classes went how they made you feel what you've learnt how it's impacted your life if something should be put in after the class is finished etc			

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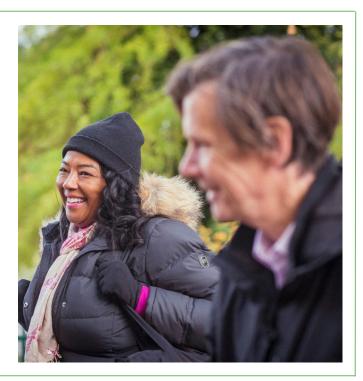
ABOUT INVOLVE

Involve's mission is to help people live happier, healthier lives. Empowering communities to live well by tackling the root cause of ill health, including isolation, loneliness, disadvantage and frailty.

In 2023/24 Involve supported:

26,655 adults, children, young people parents, and carers.

Involve are leaders in social prescribing and other innovative approaches to improve wellbeing in communities.



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