Falls Prevention Volunteer Service

Kingston Hospital NHS Foundation Trust

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helpforce

NHS
Kingston Hospital
NHS Foundation Trust

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Executive summary

The project

Kingston Hospital NHS Foundation Trust ran an eight-week intervention in which trained volunteers visited patients' homes to deliver a rehabilitating exercise programme between November 2021 to January 2023. The aims of the service was to reduce deconditioning and the risk of falling post-discharge, increase social connectivity, and to improve quality of life for the elderly.

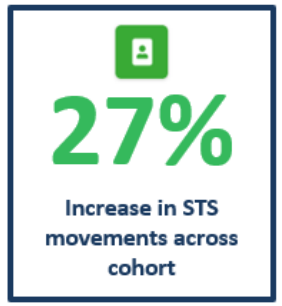
Evaluation approach

Using its established *Insight & Impact* evaluation service, Helpforce follows a consistent methodology to determine the impact of volunteering roles on health outcomes. Target outcomes are identified across a range of beneficiaries representing the people and organisations involved, and then we collect the necessary data to prove and evidence the outcomes. These include improved patient wellbeing, reduced patient risk of falling, enhanced patient balance and strength, increased access and utilisation of community services by patients and development of new skills for volunteers.

Key findings

Over the period of project delivery:

- The cohort's average STS movement scores increased from 10.0 to 12.7, **indicating improved strength.**
- The cohort's average TUAG scores decreased to 32.1 from 34.9, and the 180 degree turn scores improved from 5.7 to 4.8 after the programme, **suggesting better mobility.**
- The cohort's average **confidence in performing daily activities score increased** from 6.4 to 7.5 after receiving support.



Conclusions & recommendations

The Falls Prevention Programme has been effective in improving the functional fitness and health outcomes of elderly individuals who are at risk of falls and are immediately discharged home from the hospital, with improved scores across all functional fitness tests and enhanced patient connections to local community services. However, further feedback is recommended around the difficulty of exercises and the impact on emotional wellbeing. Patients and volunteers appear satisfied with the programme and volunteers report a positive impact on their mental health.

Context: Falls Prevention Service

- The Covid-19 pandemic had a severe impact on the elderly, resulting in deconditioning, falls, and loneliness. Falls cost the NHS around £2.3 billion per year and studies have indicated that a tailored exercise programme can decrease falls by 54%, and physical activity can lower the risk of hip fractures by 50% from falls[1].
- The National Institute for Health and Care Excellence (NICE) guideline also highlights the importance of integrating exercise into strategies aimed at preventing falls, with a particular focus on improving strength and balance[2].
- Kingston Hospital NHS Foundation Trust set up an eight-week intervention in which trained volunteers visited patients' homes to deliver a rehabilitating exercise programme. The aims of the service was to reduce deconditioning and the risk of falling post-discharge, increase social connectivity, and to improve quality of life for the elderly.

[1] *NICE (2019), Oldham Exercise Falls Prevention Service.* https://www.nice.org.uk/sharedlearning/oldham-exercise-falls-prevention-service, *Greater Manchester Falls Prevention: Delivering Integration and Reconditioning (2021).*

[2] *NICE (2018), Falls.* https://www.nice.org.uk/guidance/cg161/evidence/falls-full-guidance-190033741

Context: Falls Prevention Volunteers

The exercise programme involved volunteers...

- Delivering 1 face to face visit in the patient home per week (duration 8 weeks), demonstrating & facilitating physiotherapy prescribed exercises
- Delivering 1 additional telephone call per week for the first 4 weeks, to provide support and encourage engagement with the programme
- Sign-posting to local community services and activities, and providing healthy living messaging
- Recording data in patient workbooks

Evaluation approach

Helpforce's approach to evaluating the impact of the Falls Prevention role has on the patients, and the volunteers involved

Using its established *Insight & Impact* evaluation service, Helpforce follows a consistent methodology to determine the impact of volunteering roles on health outcomes. Target outcomes are identified across a range of beneficiaries representing the people and organisations involved, and then we collect the necessary data to prove and evidence the outcomes.

Evaluation of the Falls Prevention volunteer project at Kingston Hospital was completed using data captured from patients and volunteers. We are looking to answer the following questions about the project:

- Has it resulted in reducing the fear of falling among patients who have been discharged from an acute hospital?
- Has it improved the patients' balance, strength and coordination?
- Has it resulted in increased social connectivity among patients?
- What affect has it had on volunteers who participated in the programme?

The project supports a multitude of **patient, volunteer and organisational outcomes.** These include improved patient wellbeing, reduced patient risk of falling, enhanced patient balance and strength, increased access and utilisation of community services by patients and development of new skills for volunteers.

Evaluation approach

Summary of patient outcomes and data being collected

Outcomes		Data collection
Help **restore** patients' **physical health and independence** and prevent **deconditioning**		Functional fitness test score (180 turn, TUAG, STS) EQ5D quality of life self assessment Self reported fear of falling level
Enhance patients' **emotional wellbeing** at a time where they are **feeling anxious and isolated**		Self reported involvement with community services plus number of onward referrals made Self reported confidence to cope at home level
Support patients at risk of falls within the community to **remain at home**		Self reported confidence to cope at home

Project activity

- **17 patients** completed the Falls Prevention Programme between November 2021 and January 2023. During this time **122 face to face and 77 telephone sessions** were provided by volunteers.
- Patient data was collected via two mechanisms:
  - A follow up survey at the end of the intervention, including quantitative and qualitative questions regarding their experience of receiving volunteer support.
  - Volunteers facilitated data collection at both the first and last interaction with the patient who was receiving the support via standardised measures of physical and emotional wellbeing.
- Additionally, volunteer feedback was collected via surveys before they started their roles (pre) and after being in role for some time (post).

8
volunteer pre surveys

10
volunteer post surveys

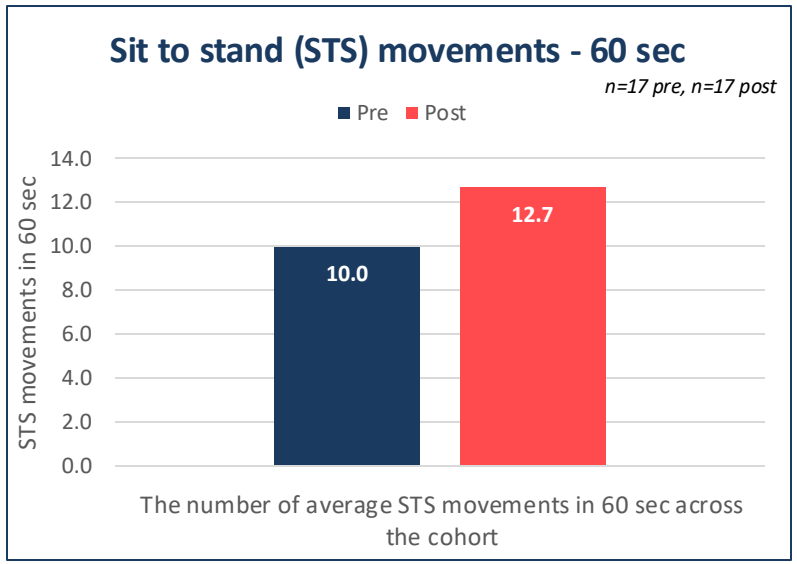
17
pre and post ED-5D measures

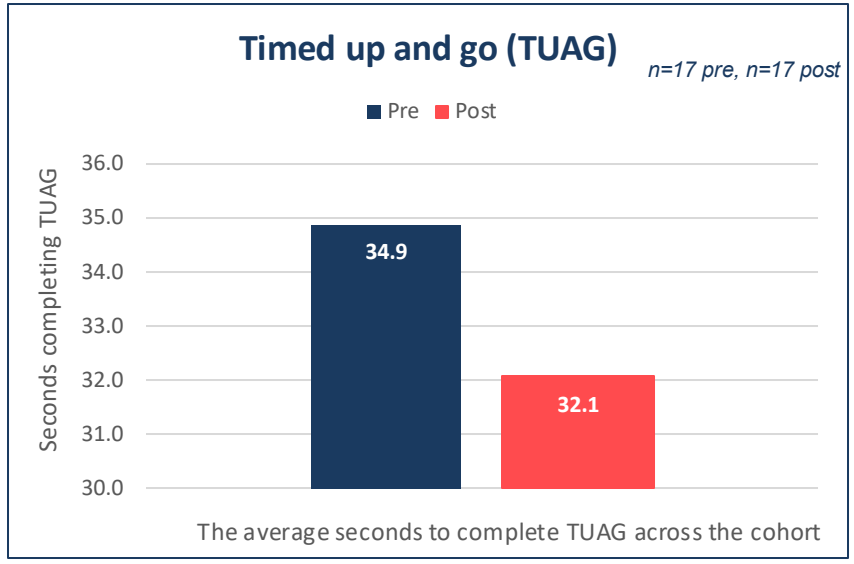
17
pre and post health and wellbeing measures

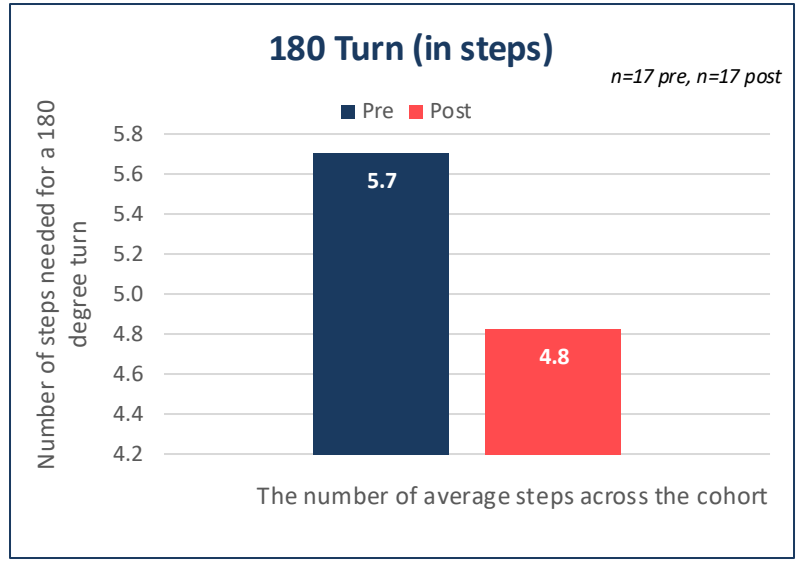
8
patient follow up surveys

Impact: Patient's functional fitness

Functional Health Measures







- The patients in the programme were evaluated using several functional health measures, including **a 60-second Sit-to-Stand test, Timed Up and Go test,** and **180 turn (in steps)** before and after the programme. The STS assesses strength and endurance by counting how many times a person can stand up and sit down in 60 seconds; the mobility, balance, and walking speed TUAG test assesses by timing how quickly a person can stand up from a chair, walk, turn, and sit back down; and the 180 turn test assesses balance and mobility by measuring a person's ability to perform a simple turn.
  - The average scores increased from 10.0 to 12.7, indicating **an improvement in strength and endurance for STS movements**.
  - The cohort had an average score of 34.9 on the Timed Up and Go (TUAG) test before the intervention, which decreased to 32.1 after. This indicates that **the intervention resulted in better mobility and faster walking speeds** for the cohort.
  - The cohort's average score on the 180 Turn (in steps) test improved from 5.7 to 4.8 after the programme, **indicating improved mobility and balance.**

Impact: Patient's social and emotional wellbeing

19
community service contacts by the end of the programme

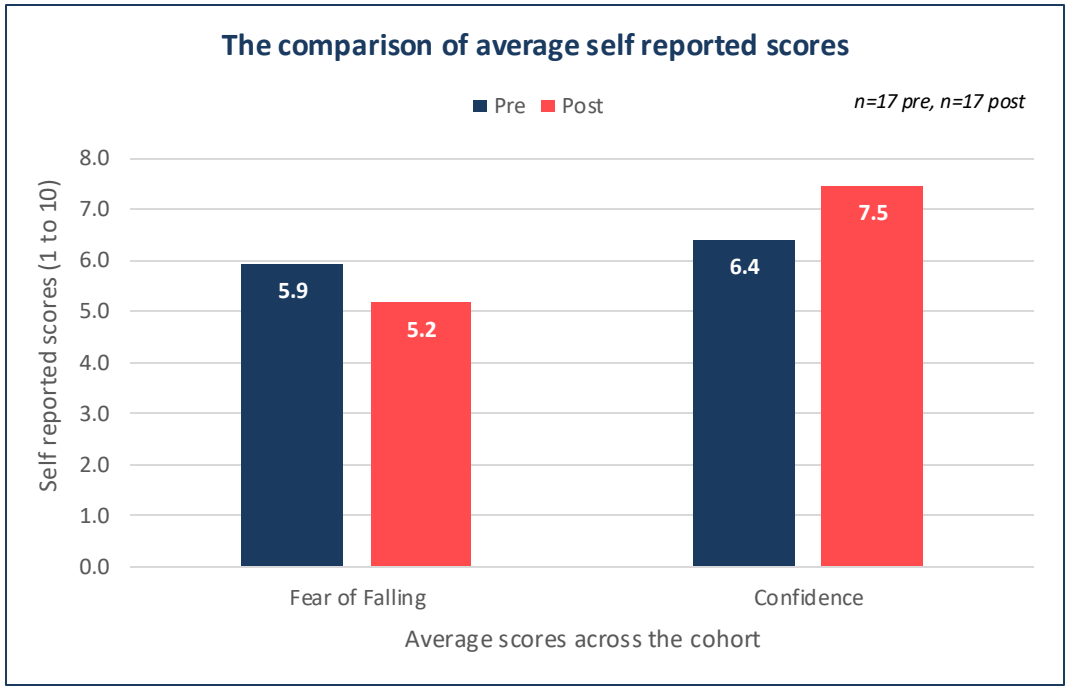
63%
of patients took on additional activities

Community engagement

- The Falls Prevention Programme led to an increase from 8 to 19 community service contacts across the cohort, indicating a significant improvement in the **access and utilisation of community services by patients.**
- **63% of patients** said that they **took on additional activities** as a result of the programme. These included personal activities such as increased exercises and extra walking, but also community activities including attendance at day centres.

Self Reported Measures

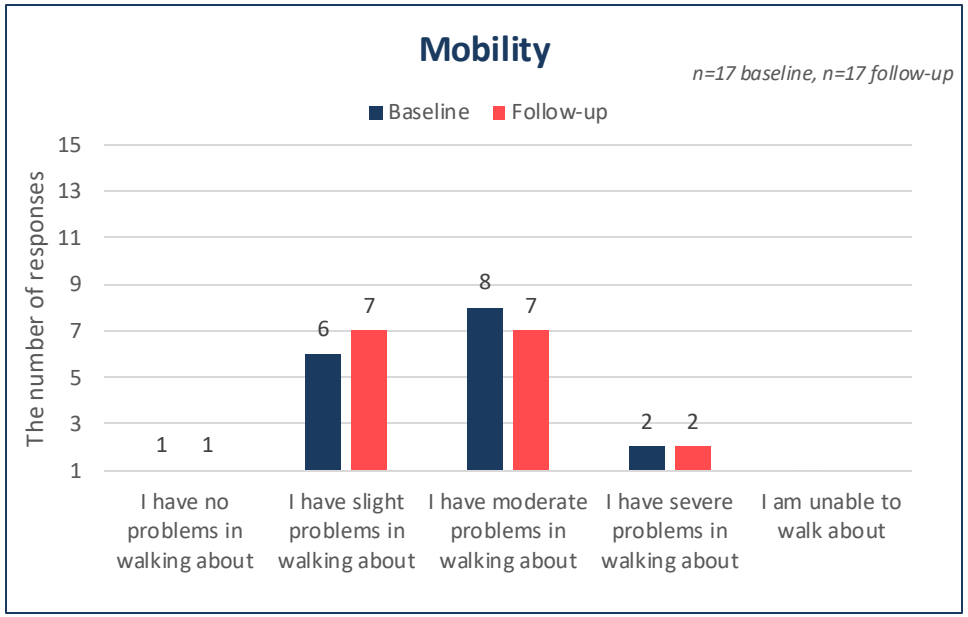
- The data shows that the cohort's average **fear of falling score decreased** from 5.9 before the programme to 5.2 after receiving the volunteering support.
- Additionally, the cohort's average **confidence in performing daily activities score increased** from 6.4 to 7.5 after receiving support.
- These findings suggest that the programme had a positive impact on the patients' fear of falling and confidence levels, therefore indicating that the **programme improved participating patients' emotional response to their physical and functional abilities**.

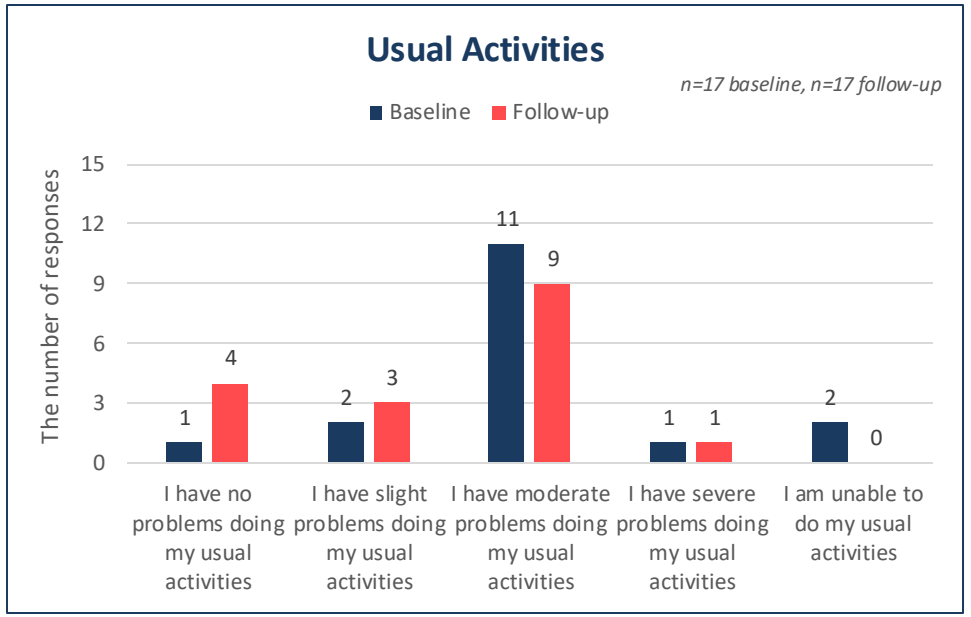


Impact: Patient's mobility and abilities

EQ – 5D Self Assessment

- There was a modest increase in patients reporting slight walking problems from baseline, which increased from six patients to seven at follow up. While the **programme seemed to positively impact some participants' mobility**, it did not have a significant effect on the entire cohort.
- The programme resulted in **an improvement in patients' ability to perform usual activities**, with the number reporting no problems increasing from 1 to 4 and the number reporting moderate problems decreasing from 11 to 9. This suggests that the programme **had a positive impact on the patients' daily functioning.**

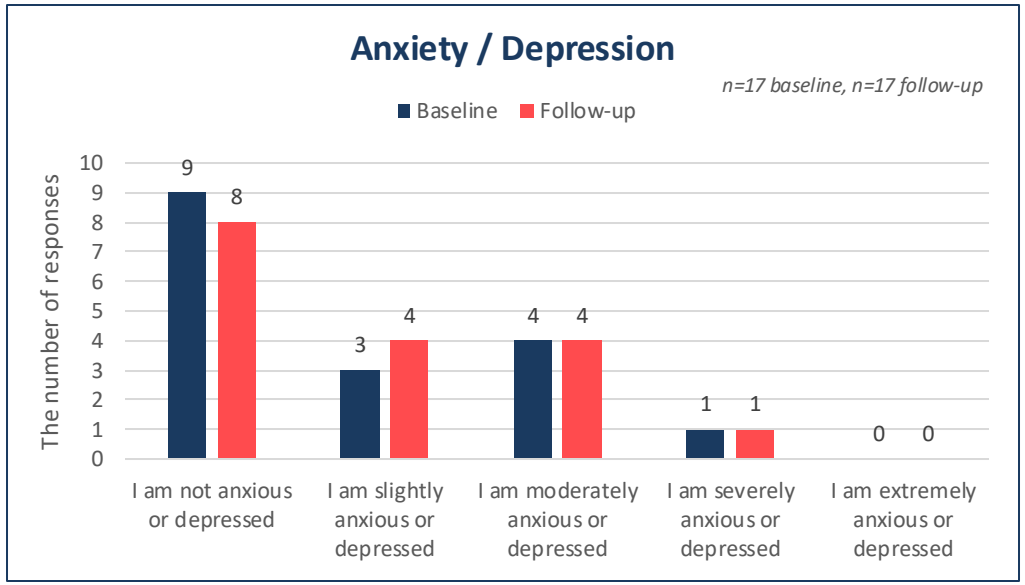


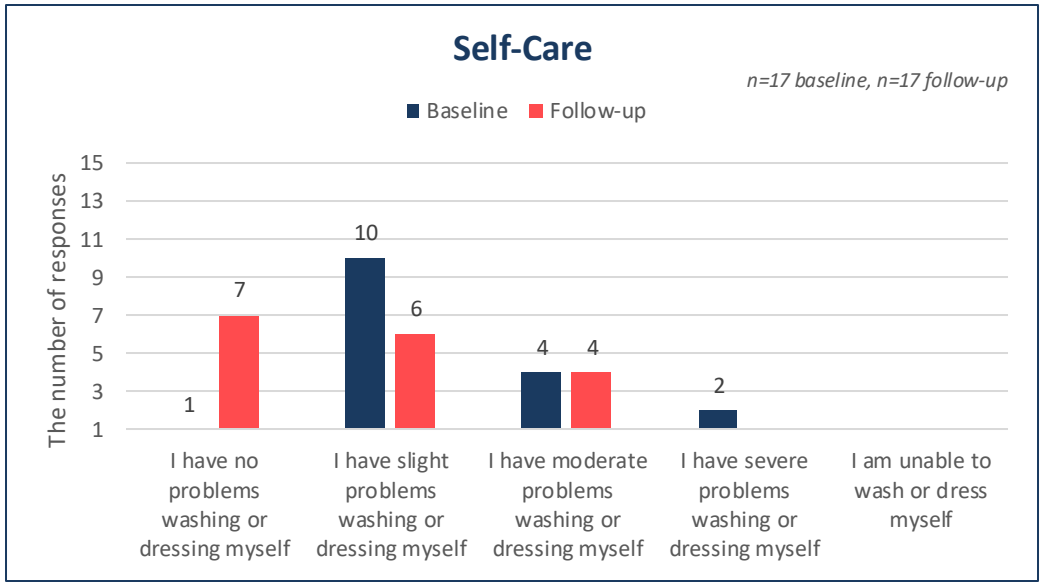


Impact: Patient's emotional and physical wellbeing

EQ – 5D Self Assessment

- **The majority of participants reported not experiencing anxiety or depression at both the start and end of the programme**, with only a few reporting severe, slight or moderate symptoms. The data therefore suggests no significant change in participants emotional wellbeing.
- The data shows that there was **an improvement in patients' ability to undertake self-care**, with a significant increase in the number of patients who reported no problems washing or dressing themselves from baseline to follow-up. Additionally, the number of patients who reported slight problems in self-care decreased, while the number of patients with severe problems decreased to zero at follow-up.



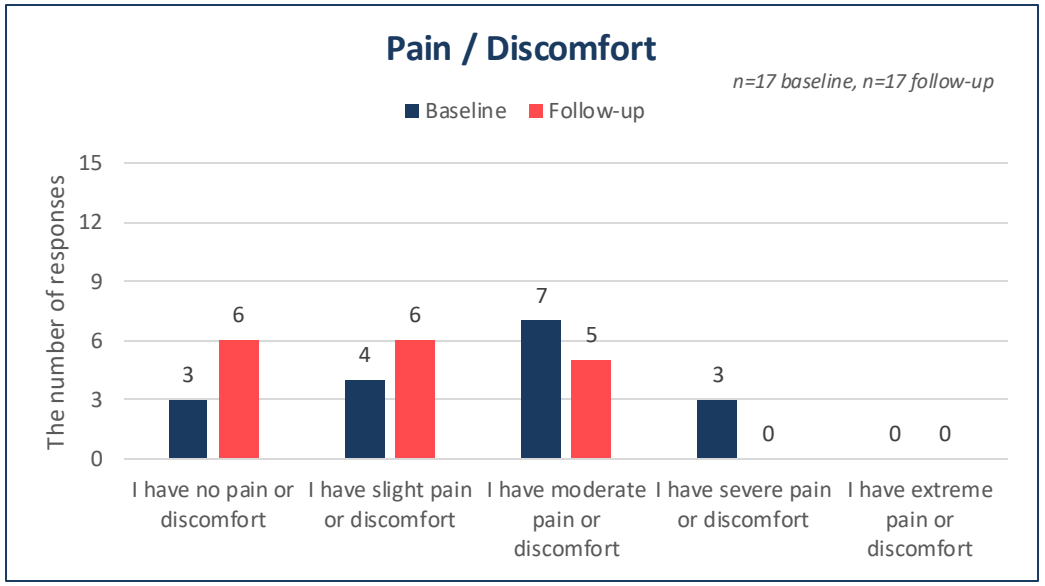


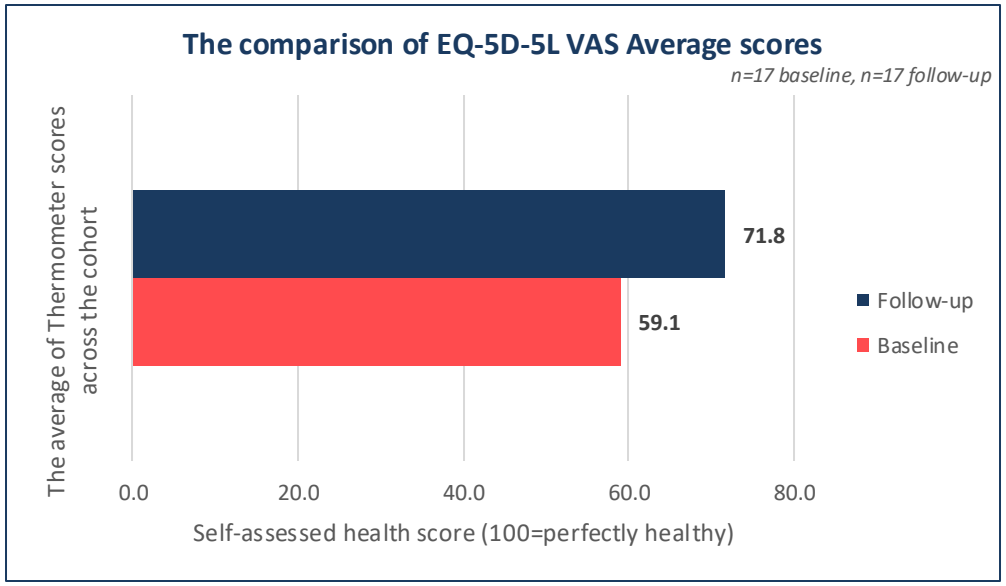
Impact: Patient's physical and emotional wellbeing

EQ – 5D Self Assessment

- Patients reported improvements in their levels of severe and moderate pain or discomfort, resulting in a decrease in the number of patients reporting severe pain from three at baseline to zero at the follow-up, while the number of patients reporting no pain or discomfort increased from three to six. **This suggests that the programme was effective in reducing pain and discomfort levels among the patients.**

- The thermometer score is a simple self-assessed health score to measure overall health and wellbeing, with higher scores indicating better feelings of overall health. The average self-reported thermometer score across the cohort increased from 59.1 at baseline to 71.8 at follow-up. **This suggests an improvement in the overall health and wellbeing of the patients after completing the programme**.

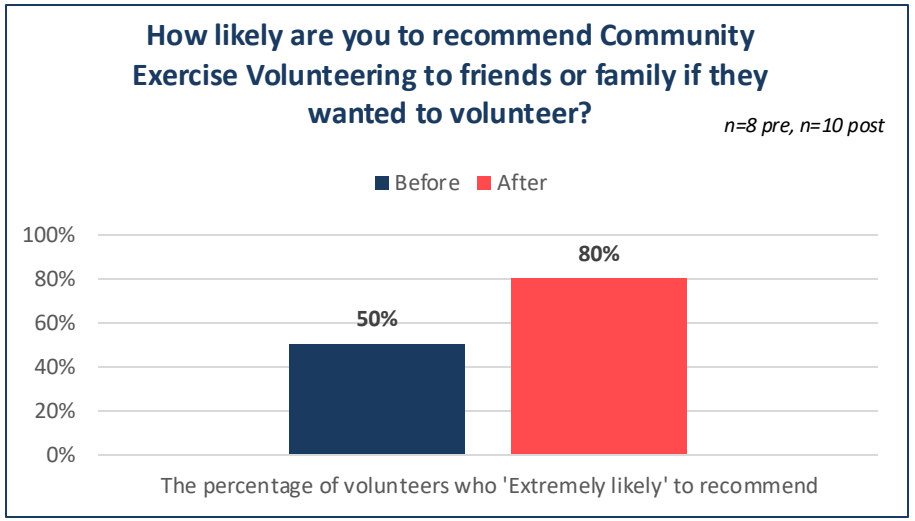




Impact: Volunteer perceptions of role

- Participating in the Falls Prevention Programme led to an increase in the proportion of volunteers who were likely to recommend the volunteering role. The percentage who said that would be extremely likely to recommend the role **increased from 50% to 80%,** which suggests that **the programme has been successful in enhancing the volunteers' satisfaction** [2].

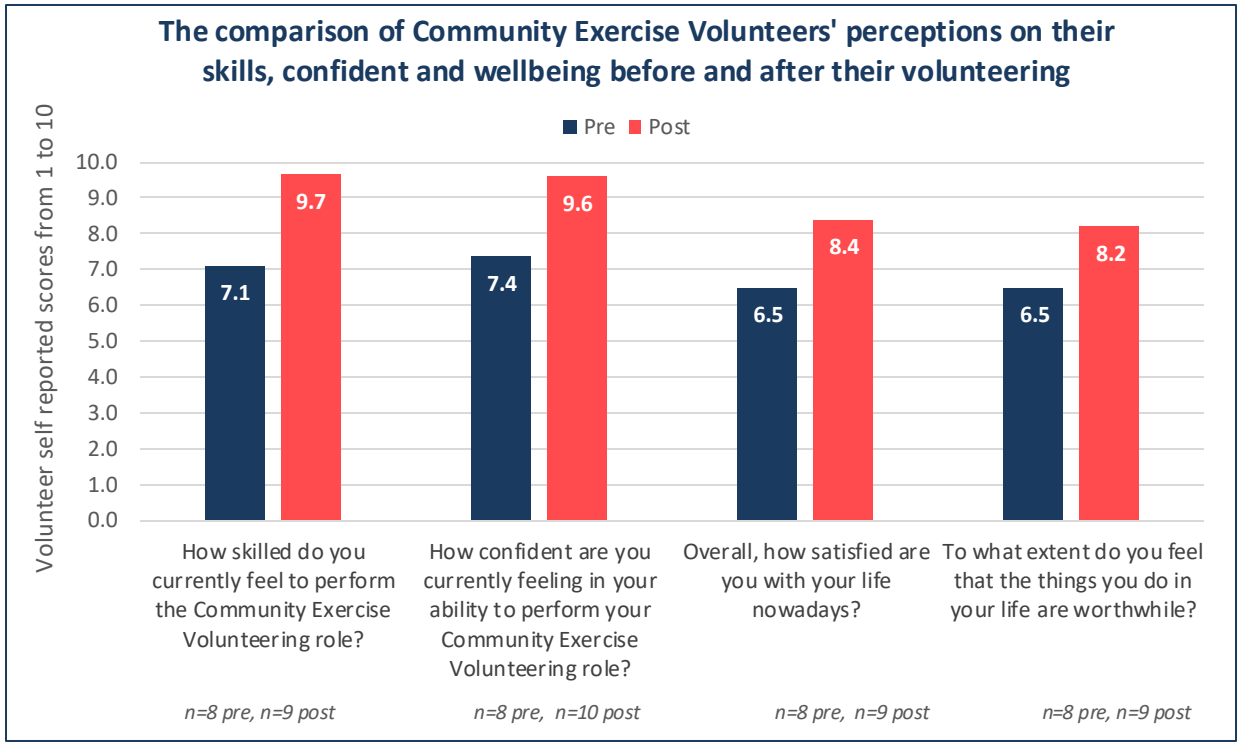
- When volunteers were asked about how long they aspire to continue this volunteer role, **90% told us they do not see themselves stopping this role.**



[2] *n=8 pre, n=10 post.*

Impact: Volunteer outcomes

- The volunteers reported an **increase in their skill level and confidence in performing the volunteering role**, with the pre-scores averaging at 7.1 and post-scores at 9.7 out of 10.
- Volunteers also reported **higher levels of life satisfaction and worthwhile contributions** in the post- survey.
- Overall, the data suggests that the programme had **a positive impact** on volunteers' confidence, skills, sense of satisfaction and meaningfulness in their daily lives.

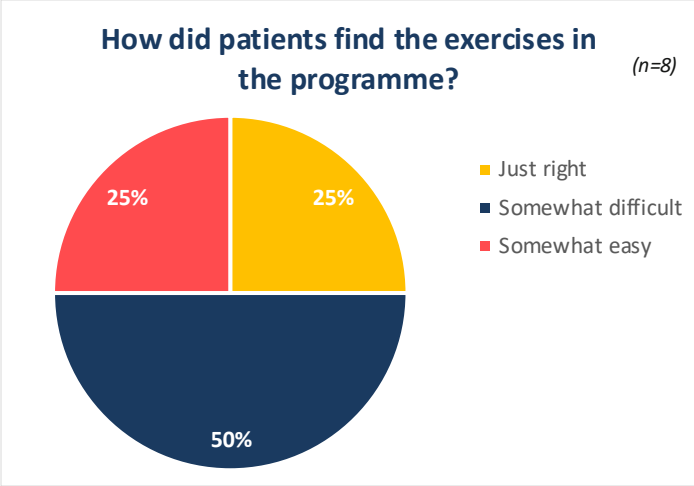


Insights: Patient experience

Feedback on exercise difficulty

- In the patient follow up survey, half of the respondent participants share that **they found the exercises in the programme to be somewhat difficult,** with a smaller percentage finding them just right or somewhat easy (n=8).

- This may indicate that the exercises were as challenging as they needed to be to resulting in improvements for the patients, or it could illustrate that the exercises were too difficult for patients during their recoveries. Researchers suggest further feedback be gathered from patients to inform any future service developments.



Insights: Patient experience

Patients who completed the programme **provided positive feedback** and shared what they particularly liked…

> *"The people have treated me equally, and not like 'a silly old lady'.*
>
> *-Patient*

> *"Volunteer was excellent - she kept trying with me and didn't give up."*
>
> *-Patient*

> *"Enjoyed the company of volunteer, talking with the volunteer, and how regular was with their visits."*
>
> *-Patient*

> *"It encourages you to use parts of the body and muscles which you normally don't use. I feel much more mobile, and I was more stuff before. I feel I can get up and move from a chair more easily and quickly."*
>
> *-Patient*

> *"Very happy it (the support) resulted in the Day Centre referral, which has connected me to the outside world and made me feel less lonely."*
>
> *-Patient*

Insights: Volunteer experience

- All of the volunteers who provided feedback reported that they are very satisfied with the volunteer services team and told us the service is working very well.
- When volunteers were asked about how the volunteer role or programme could be improved, seven out of eight respondents told us that the ability to work with patients earlier in their care pathway would be beneficial as a preventative measure. For example, one volunteer explained *"in order to reduce the probability of falling, it could be possible to work in advance with patients who have carers and who are registered as high-risk patients in the Social Service. This programme can be part of the care plan for the patients."*
- When asked what additional training or support would they have found helpful, seven volunteers told us that they would like to undertake activity courses, such as Chair Based Exercise (CBE), Postural Stability Instructor (PSI) and Level 3 Award for Adapting Exercise for independent and active older adults.

Conclusions and Recommendations

- The Falls Prevention Programme has demonstrated that targeted exercise at home with skilled volunteers can be effective in **improving the functional fitness and health outcomes of elderly individuals** who are at risk of falls and are immediately discharged home from the hospital.
- Average scores across all functional fitness tests improved, indicating **improvements in strength, endurance, mobility and balance**.
- In addition, the programme also appears to **enhance patient connections to local community services.**
- **The impact of the programme on individuals' emotional wellbeing appears less clear, however.** Whilst patients reported improved confidence in abilities and reduced fear of falling, there was no significant improvement in individuals' feelings of anxiety / depression.
- It is also recommended that **further feedback be gathered from patients around the difficulty of exercises**, to ensure they are appropriate for the patients' abilities and strength.
- Nonetheless, patients appear **satisfied with the support** that they received from volunteers and the Falls Prevention Programme.
- For volunteers, there appears to have been a **positive impact on their mental health,** resulting in a sense of fulfilment by providing them with a meaningful service to patients.
- Additionally, **several volunteers were extremely likely to recommend the volunteering role** to others; and provided positive feedback on their experience of support the delivery of the service.

Please note

- The statistical significance tests and correlation analysis conducted on factors such as age, gender, sessions, and interruptions.
- Spearman's rank correlation analysis revealed a positive correlation between programme duration and the number of steps required to complete a 180-degree turn in female patients, r = .633, p = 0.27. It was demonstrated that higher interruption during the programme was associated with an increased number of movements required to complete a 180-degree turn in females.
- A paired samples t-test was used to compare patients' scores before and after participating in the Falls Prevention Programme. The results indicated that the programme led to improved confidence levels in managing falls, $t(16) = -3.246$, p = .005
- However, no other significant effect was observed in other programme variables.
- Given the small sample size, it is suggested that further analysis be undertaken with a wider range of data in the future to gain a more comprehensive understanding of the factors that may affect the outcomes of the Falls Prevention Programme.

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About Helpforce

Helpforce is a UK-based charity that works with organisations within health and care to accelerate the growth and impact of volunteering.

https://helpforce.community/iandi