Transforming musculoskeletal and healthy ageing in Kingston & Southwark

Using community, physical and digital assets to improve health outcomes and reduce demand on the NHS

April 2022















Executive Summary

Over 2021-22, a community supported selfmanagement project was delivered in the London Boroughs of Kingston and Southwark. The aim of the project was to provide accessible supported selfmanagement options for adults living in the boroughs with musculoskeletal (MSK) conditions and tackle inactivity in older adults.

HIN Innovation Project

The project was funded by the Health Innovation Network South London as part of a programme to pilot innovations in London to improve health outcomes. The key themes of MSK and Ageing Well were included in this project.

The Challenge

MSK conditions affect over 20 million people in the UK and are the primary cause of disability. The pandemic has impacted NHS services, such as Orthopaedics, Physiotherapy and Rheumatology, resulting in a backlog of care for people with MSK conditions, including elective appointments and operations. Over the course of the pandemic, older adults have become more sedentary as a result of lockdowns and shielding. This has contributed to muscle loss (sarcopenia), reduced strength and balance, and increased risk of falls.

Borough of Southwark

Established a community aquatic activity service in a local leisure centre (The Castle Centre). Patients with MSK conditions waiting for physiotherapy care and also those at discharge, were offered the supported self-management aquatic classes. The classes were paid for by the participants and personalised aqua rehab sessions were delivered through an Artificial Intelligence (A.I) aquatic rehab software (Good Boost) on waterproof tablets. Classes were supported by a group class facilitator, a volunteer and Physiotherapy students.

Borough of Kingston

Established a home exercise programme for older adults living with multiple long-term health conditions to develop and maintain strength and balance. The service was delivered by volunteers utilising rugged tablet computers with A.I. personalised exercise programmes (Good Boost).

Impact & Next Steps

Both the services have identified funding and support to continue beyond the project timeframe. The ambition is to disseminate the successes and learnings from the project to scale the solution, approach and methods so as to improve health outcomes nationally.

Project Team

Nimalini Ajith, Joint and Bone Health Physiotherapist, Public Health, Royal Borough of Kingston

Lakhwinder Gill, Older People Health Improvement Lead, Public Health, Royal Borough of Kingston

Nicky Wilson, Consultant Physiotherapist (MSK), King's College Hospital NHS Foundation Trust

Ben Wilkins, CEO, Good Boost











Innovation Project Design

HIN Innovation Grant

The Health Innovation Network, South London, delivered a grant programme, inviting applications to pilot innovations to improve health and deliver a real-world evaluation case study

Project Title:

Transforming musculoskeletal and healthy ageing in Kingston and Southwark: Using community, physical and digital assets to improve health outcomes and reduce demand on the NHS.

Key outcomes

- Successful delivery of an effective community exercise service for hardto-activate populations
- Improvements in key MSK outcomes and Quality of Life (PROMS data)
- Positive user experience
- Service acceptability
- Sustainability of service design and delivery

COVID-19

The project was heavily impacted due to COVID-19 restrictions. However, the project has adapted to the pandemic and successfully delivered the project aims.

Challenge and Unmet need:

The challenge of unmet need: Musculoskeletal Conditions/Deconditioning and Healthy Ageing

In the UK, musculoskeletal disorders (MSKDs) affect over 20 million people¹, account for 30% of GP appointments and constitute 22% of the total burden of ill-health^{2,3}. Older adults account for the majority of MSK disease burden⁴. The prevalence (and associated costs) of MSKDs are projected to rise considerably in subsequent years due to an ageing population, levels of obesity, inactive lifestyles and delayed treatment associated with the Coronavirus pandemic.

COVID-19 has resulted in greater deconditioning in older adults and populations with long term health conditions (LTHCs), such as people with osteo/inflammatory arthritis respiratory, cardiovascular and neurological conditions. Long waits for NHS care including orthopaedic and rheumatology services^{5,6,7,8} have compounded known inequalities; Black, Asian and minority ethnic (BAME) groups experience a high prevalence of certain MSKDs⁹, inequality of access to MSK care and poorer service experiences⁹.

Physical activity-based interventions can improve symptoms in people with MSKDs^{10,11,12}. There is moderate quality evidence that digital MSK rehab-exercise interventions improve pain, function and quality of life¹³. A retrospective observation study by Good Boost demonstrated a meaningful improvement in pain and function between 0-4 weeks for users, maintained between 4-24 weeks¹⁴.

Low adherence in self-management digital solutions is one limiting factor in interventions¹⁵. On-line communities provide alternative and ready access to a 'self-management support illness workforce' through social connections that extend beyond illness¹⁶.

Aim of the project:

To pilot a community exercise service that focuses on MSKDs and healthy ageing in the boroughs of Kingston and Southwark. To provide the service in non-clinical settings with non-clinical staff and volunteers, utilising a digital A.I. exercise-rehab solution.

Methods & Delivery

- Co-design the final solution delivery with input from local stakeholders, older adults and people living with MSKDs
- Create an implementation plan
- Engage key stakeholders
- Non-clinical volunteer/staff/peer led services (emotional support)

Outcome & achievements:

- Delivery of personalised exercise and rehabilitation for people living with MSKDs and LTHCs in both boroughs
- Services led by non-clinical staff and volunteers (emotional support)
- Sustainable exercise programmes for people with LTHCs following health care interventions
- An effective community MSK service with minimal NHS staff resource
- Improved patient reported outcomes and quality of life for people with LTHCs.



Southwark:

Community
Therapeutic Aquatic
Exercise Service

Community Therapeutic Aquatic Activity Service

The Southwark element of the project involved creating a community therapeutic aquatic activity service in a local leisure centre (The Castle Centre). Patients under Kings College Hospital (KCH) waiting for care for their MSK condition or following discharge from physiotherapy were offered the therapeutic aquatic

activity sessions. The team worked with the local leisure centre to identify suitable pool timetable space to deliver the group sessions and with Good Boost to setup the swimming pool with their A.I. aqua rehab technology. The program started in October 2021 once the pool set-up with Good Boost's waterproof

tablet computers was completed and Good Boost sessions were added to the leisure centre timetable. Volunteers supported session delivery and Physiotherapy students benefited from joining sessions to gain real-world experience of community supported self-management programmes.

User Journey to the community aquatic sessions



Patients identified via KCH Physiotherapy waiting list or on discharge Patient books into the Good Boost class specified on the leisure centre timetable directly through the leisure centre booking service. Patient attends first session and completes registration and sign-up on the Good Boost waterproof tablet computer Patient follows personalised aqua exercise programme on waterproof tablet computers

Patient provides further feedback data on exercises, enabling A.I. technology to progress, and adapt the personalised aqua exercises for the next session

Community Therapeutic Aquatic Activity Service

The aquatic sessions were delivered at The Castle leisure centre in Elephant & Castle, managed by the leisure operator, Everyone Active.

The aquatic sessions were delivered in the learner pool at the venue. Following agreement by the center manager to establish the classes, the sessions were added to the Everyone Active timetable, enabling patients to book into the community aquatic sessions.

On participants' first session, they arrive 30 minutes before the class starts to register on the Good Boost tablet computers. Information including questions about individual health conditions, water confidence, mobility and preferences, is collected. A.I. is used to design a personalised aqua rehab programme.

Participants take the same waterproof tablet computers into the pool to follow their aqua exercise programme. This enables the class facilitator and volunteer to provide 1-2-1 guidance and support to participants, rather than leading and instructing the group. This method provides opportunities for tailored emotional and social support during group sessions, and promote participant confidence and group social connections.







Participants using Good Boost's waterproof tablet computers to register and sign-in prior to a session in the pool







Participants in the pool using Good Boost tablet computers to follow their aqua exercise session and provide on-going feedback into the A.I. technology

Key Successes

In spite of the delays and challenges associated with COVID-19 restrictions, the project successfully launched achieved, most notably the delivery of the service in October 2021 and has created tangible participated in the programme.

Over the duration of the project many successes were given the challenges and uncertainties of the improvements in wellbeing for patients who joined and pandemic. Quantitative and qualitative outcome data from the programme shows improvements in key MSK

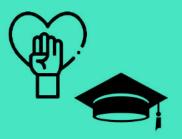
health outcomes and patient overall wellbeing. The Southwark service has been identified by the NHS Playbook as a best practice example of communitybased supported self-management for people with MSKDs.



Established a sign-posting pathway between KCH Physiotherapy Centre and the leisure centre



Created supported selfmanagement options while waiting for care or on discharge



Volunteer & Student opportunities



Created social support network for patients living with MSK conditions



Measured improvements in MSK outcomes



Demonstrated economic case for the leisure centre



Continuation of the programme in the Borough of Southwark



Recognised by NHS Playbook as a Case Study

Data over 5-months from launching the Therapeutic Aquatic Activity service between October 2021 – March 2022

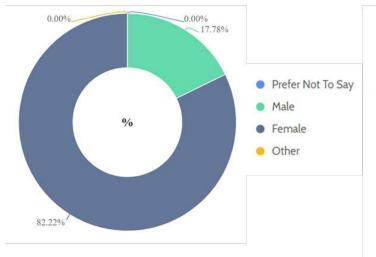
27
Total Number of registered users

275
Total Number of sessions delivered

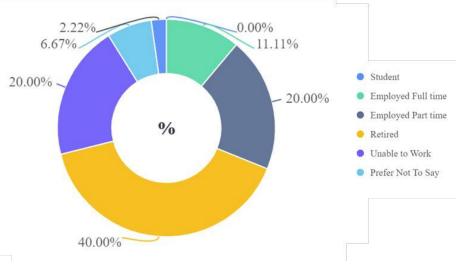
40-50 Youngest age range 80-90 Oldest age range

57Average age

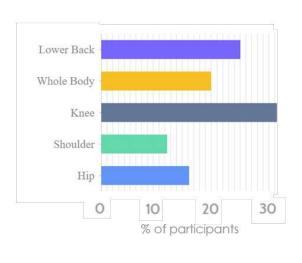




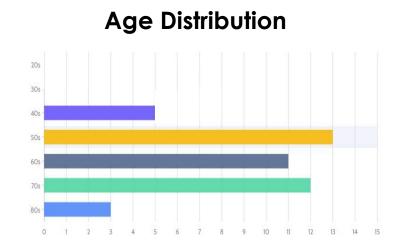
Employment Status

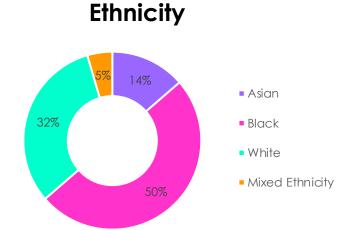


Affected Joint

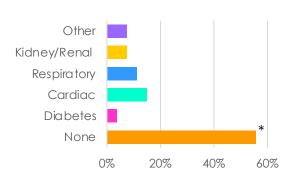


Data over 5-months from launching the Therapeutic Aquatic Activity service between October 2021 – March 2022



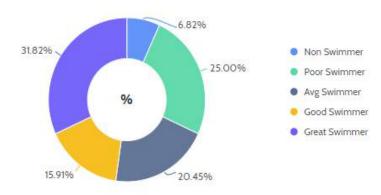


Co-morbidities

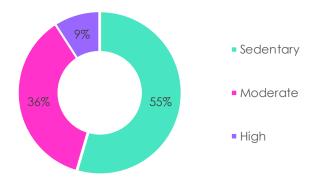


*Likely to contain missing data suggesting a higher proportion of patients were living with other long-term health conditions

Baseline - Water Confidence



Baseline - Physical Activity Level



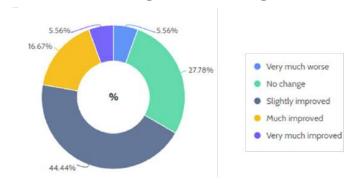
Data over 5-months from launching Good Boost between October 2021 – March 2022

Functional Change



Average of 23 % improvement in function across all body parts from baseline to last measure

Global Rating of Change Score



66.67% report improvement in symptoms

Pain Change



Average of 22% improvement in pain across all body parts from baseline to last measure

Functional Change – The 'Patient Specific Functional Scale' is a subjective measurement on a 0-100 scale (0 being 'no problem', 100 being, 'cannot complete activity') that is specific to a functional activity or movement the individual is having difficulty with. Follow up measures are to score the change in the individual's ability to complete the activity or movement. The follow up measures are completed every 4 weeks.

Pain – 'A visual analogue scale' is a subjective measurement of pain on a 0-100 scale (0 being 'no pain', 100 being 'worst pain possible'). Follow up measures score the change in the individual's experience of pain. The follow up measures are completed every 4 weeks.

Global Rating of Change – A subjective measurement of how the individual feels their condition and/or symptoms have improved since starting the intervention. The Global Rating of Change is repeated every 4 weeks and only the most recent measurement is presented for each individual.

Key Findings: Interviews

In addition to the data captured through the waterproof tablet computers, patients were invited to complete a short survey about the programme. Additionally. Volunteer and patient experiences of the programme were captured through semi-structured interviews.

The qualitative data highlighted three key themes:

- 1. A convenient and supportive space
- 2. Different to my usual rehab
- 3. Benefits beyond MSK

All the quotes on this page are from patients engaging with the community aquatic service.

1. A convenient and supportive space

'One of the good things ...that Good Boost does is it ...brings you out ...you get to point A, point B by your own means, you're not using the hospital transport or anything like that.'

'I've got into the situation where it [exercising] is not something I would do... whether I've got lazy or ...scared that I couldn't do it. Having that structure around you, it gives you a little bit more confidence...that you can do it.'

'I like the sort of sit down, have a cup of coffee before I take off. I think the camaraderie is important and also the ...sharing of experiences.'

'It's helpful to have somebody there that you can ask... because lets face it, you are meeting the setup for the first time ... I'm okay on home computers [but] I'm not familiar with tablets. [...] Anything new, you either want to sit next to somebody who's done it before or have somebody who is really au fait with the system and can ... give ... a helping hand.'

2. Different to my usual rehab

'...its quite easy...to follow something on a screen and not actually be doing it in the way that's beneficial...so having someone there that can say "Well, look, if you do it this way or stand this way... that's very beneficial to be able to do that.'

'You get to a certain point where you're thinking exercise for recovery needs to translate into exercise for pleasure... something that's got a more positive feel to it that you actually would like to do and that's... the difference, the environment, some aspect of community...its more motivational somehow.'

'it makes you feel that it [the exercises] [are] geared towards you rather than a whole class where everyone's got to do the same thing.'

3. Benefits beyond MSK

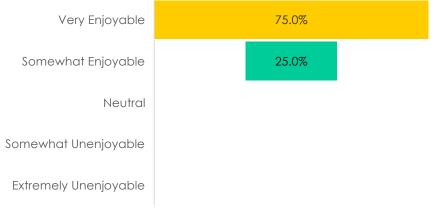
'One of the big impacts, which I didn't think was going to happen, was my mental health... I knew that I was going to be doing something getting me out of the house... meeting with other people and being able to do something physically... without worrying that I was going to do... damage... and so emotionally it was quite uplifting for me... a good thing... physically and mentally.'

'Its funny, because it does have other effects as well... I thought for ages I really ought to do something about a bit of weight loss ... and now I'm actually doing it, and I think it's all tied up together because you start doing the exercises, you get a bit more positive about living healthily anyway, you've got more drive to live healthily because if you don't... you think, oh good grief... another couple of years ..[and] I'll be needing carers.'

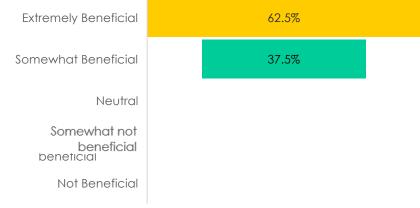
Key Stats: Survey

Survey data has been captured in a format to enable its quantitative representation. Data from 16 participants is presented opposite.

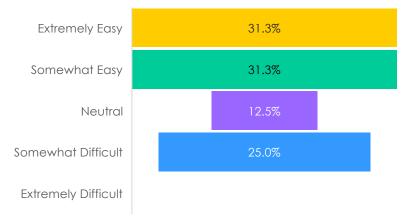




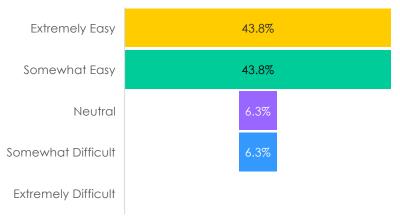
2. How beneficial did you find your water-based exercise programme?



3. How easy did you find it to register on the Good Boost app on the tablet computer?

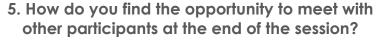


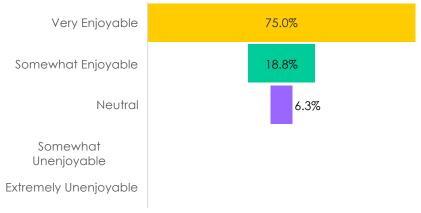
4. How easy was it to follow the exercises on your poolside tablet computer?



Key Stats: Survey

Survey data has been captured in a format to enable its quantitative representation. Data from 16 participants is presented opposite.

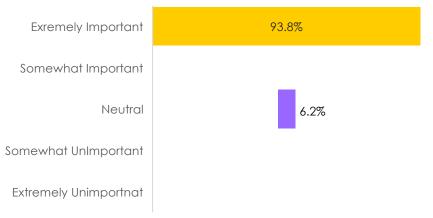




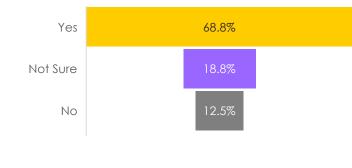
6. How important is the facilitator role to the Good Boost programme overall?



7. How important is the role of the King's volunteer to the Good Boost programme overall?



8. Do you intend to carry on attending Good Boost sessions beyond your initial 6 week programme?



Volunteer Opportunity

The project in Southwark was designed to embed volunteers in the service as part of its long-term sustainability. This provides opportunities for volunteers to gain valuable experience and improve their well-being as well as providing patients with social and emotional support.

The Head of volunteering at King's College Hospital was keen to support the project, as engaging with the community is an important component of the Trust's strategy. Having a presence and being visible in the locality, as well as expanding opportunities for volunteering, are key aspirations.

Student Learning

Physiotherapy students have benefitted from attending the aquatic sessions to gain direct real-world learning and experience from a community delivered supported self-management service 'When I started at King's College [Hospital]... you know, I was in a specific area, but here in [the] swimming pool, it's absolutely different ...I really enjoy it [...]. And basically because I ... go to the gym every day ...I think ...I can improve ...I think it's good.'

I like when they [the patients] try to do the exercise, I try to help ...when the patient doesn't know ...how can they move, and it's a challenge for me.'

'I am very happy because I can see, I can see how they [the patients] improve, and they know... it's working, the session is working every Friday.' King's College Hospital Volunteer

'Everyone can learn something from someone.

Just because they [the physiotherapy students] are younger than you [it] doesn't mean they're not knowledgeable in their field' **Patient**

'I do like ...[that] its my decision what Ido...
[and] I'm confident ...that I know what I'm doing
...[and] can be left alone to get on with it...
[though] it's just nice to know I've always got back
up' **Patient**

'for me it's both ways. So it's people being ...interested [in volunteering opportunities] and saying, oh, ...what's this programme about? Can I volunteer? [...] or, actually, what else can we do? [...] or people just going, oh, I didn't ...know, it's great to see the hospital doing this.

Head of Volunteering at King's College Hospital











Kingston:
Home Exercise
Programme

Home Exercise Programme

The Kingston element of the project involved creating a home exercise programme, The home exercise programme was designed with volunteers visiting older adults in their residence to complete exercises. Due to the complexities with covid-19 and infection control, the home exercise programme was delayed. The programme included multiple components: identifying volunteers, screening, DBS checking and training volunteers, identifying older adults at home and connecting volunteers with the older adults. The

delivery of the exercises was achieved through rugged tablet computers with the A.I. exercise software 'Good Boost', enabling each older adult to have exercises suitable for them and enabled volunteers to facilitate the exercises created by the A.I software, rather than requiring volunteers who were Level 4 Fitness Instructors.

User Journey to the Home Exercise Programme



Older adult identified through multiple Kingston older adult services and assessed by the Home Exercise team Volunteers identified, DBS checked, trained for home visits with vulnerable older adults and how to facilitate the Good Boost app

Volunteers visited the older adult at home with a Home Exercise Officer and supported the older adult to sign-up and register on the Good Boost tablet computer

Volunteers facilitated the personalised exercise programme delivered on the Good Boost tablet

User provides further feedback data on exercises, enabling A.l. technology to further progress, adapt and personalised exercises for next session

Home Exercise Programme

The Home Exercise sessions were delivered in people's homes

At participants' first session, they are supported by the volunteer to register on the Good Boost tablet computer. This information include questions about health conditions, confidence, mobility and preferences and uses A.I. to design a personalised strength & balance exercise programme. Participants also had exercise sheets and weekly diary to record their everyday exercises.

Participants follow their exercise programme using the tablet computer. This enables the volunteer to provide emotional and social support for the participants. It also enables volunteers to facilitate exercises without needing to be a Level 3/4 exercise instructor. This method provides the ability for tailored emotional and social support to be designed into the Home Exercise session, to promote confidence, companionship and reduce loneliness.













Participants exercising at home with the support of volunteers facilitating the exercises on the Good Boost app

Key Successes

In spite of the delays and challenges with covid-19 restrictions, the project successfully launched in September 2021 and has created tangible health improvement and value for the patients who joined and participated. Creating a service with volunteers visiting older adults at home had many challenges with health & safety, governance and logistics due to working with a vulnerable population. However, despite the complexity of the service development, the need of

service was so great due to the limited opportunities for the older adults to access community services due to limited transport, mobility and confidence. Over the duration of the project, the Home Exercise services achieved many successes:



Established the pathway and criteria for the home exercise participants



Identified, trained and DBS checked volunteers



Digital literacy & accessibility for older adults



Overcoming Loneliness for older adults



Increased levels of activity for older adults and improved physical function



Created support selfmanagement for difficult to activate older adults



Good volunteer engagement



Continuation of the programme in the Borough of Kingston

Data over 6-months from launching the Home Exercise service between September 2021 – March 2022

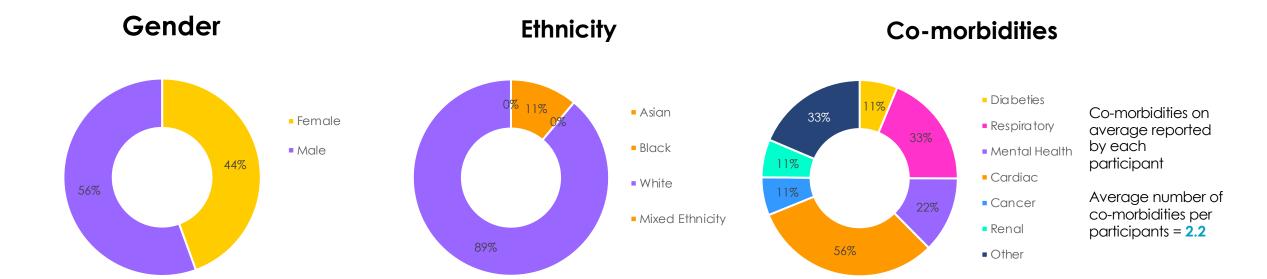
7
Total Number of registered users

34

Total Number of sessions delivered*

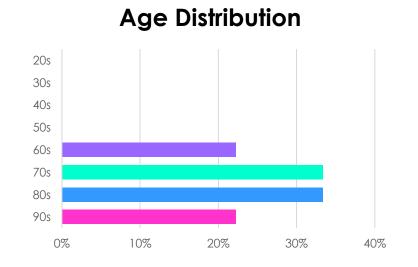
60-70 Youngest age range 90-100 Oldest age range

79Average age

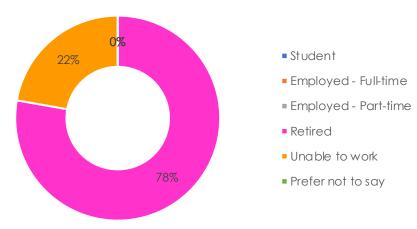


*Volunteers were matched with a older adult client in Q4 of 2022 and omicron had a significant impact on sessions delivered

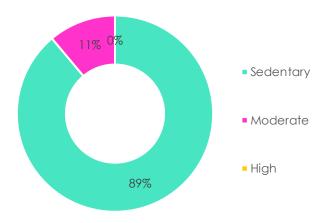
Data over 6-months from launching the Home Exercise service between September 2021 – March 2022



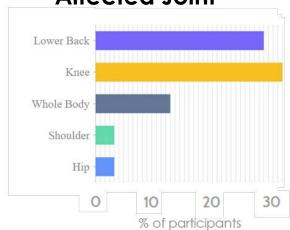
Employment Status



Physical Activity - Baseline

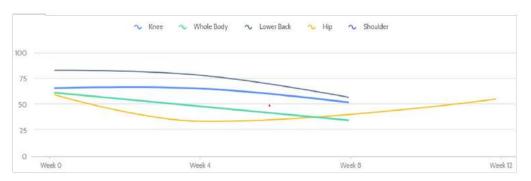






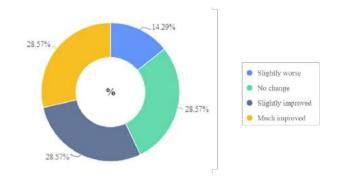
Data over 6-months from launching the Home Exercise service between September 2021 – March 2022

Functional Change



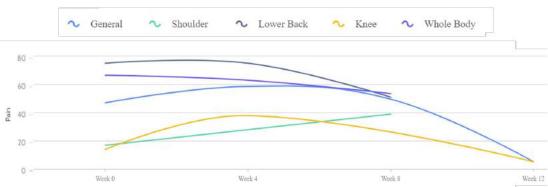
Average of 26.8 % improvement in function across all body parts from baseline to last measure

Global Rating of Change Score



57.14% report improvement in symptoms

Pain Change



Average of 29.7 % improvement in pain across all body parts from baseline to last measure

Functional Change – The 'Patient Specific Functional Scale' is a subjective measurement on a 0-100 scale (0 being 'no problem', 100 being, 'cannot complete activity') that is specific to a functional activity or movement the individual is having difficulty with. Follow up measures are to score the change in the individual's ability to complete the activity or movement. The follow up measures are completed every 4 weeks.

Pain – 'A visual analogue scale' is a subjective measurement of pain on a 0-100 scale (0 being 'no pain', 100 being 'worst pain possible'). Follow up measures score the change in the individual's experience of pain. The follow up measures are completed every 4 weeks.

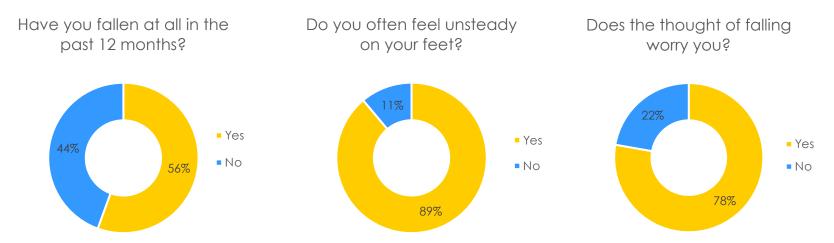
Global Rating of Change – A subjective measurement of how the individual feels their condition and/or symptoms have improved since starting the intervention. The Global Rating of Change is repeated every 4 weeks and only the most recent measurement is presented for each individual. The higher the percentage, the greater the change for the individual.

Note: due to the small sample size, large changes in average score change can be influence by 1-2 individuals. Some measures have <5 individuals complete the outcome follow-up at certain measurement weeks.

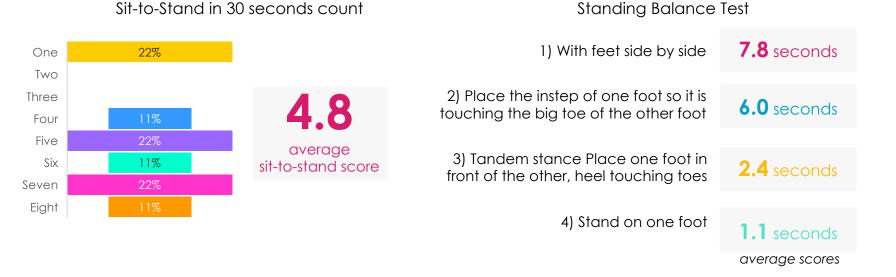
The majority of participants were at high risk of falls. All participants sit to stand results scored below average for their age group. Almost half (42.9%, next page) of participants were 'severely lonely' and lacked digital skills and confidence.

Baseline scores highlighted that the participant population were at high need to strength and balance and social companionship which this project provided. Furthermore, this is a population with low digital skills and unlikely to access self-management content and resource without support. Furthermore, they are a isolated older adult population that are in need of direct, at-home support. This project delivered upon these needs and requirement to support and activate older adults, with high falls risk, high levels of loneliness and low level of digital confidence.

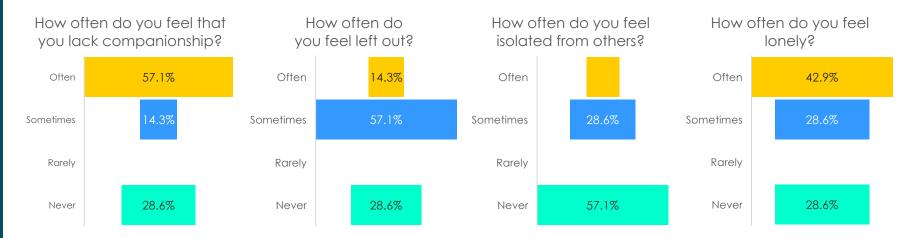
Falls Assessment – Initial Assessment



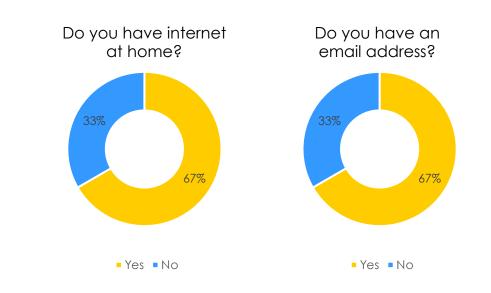
Strength & Balance – Initial Assessment



Loneliness – Initial Assessment

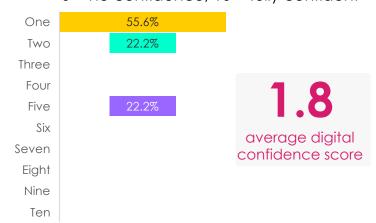


Digital Confidence – Initial Assessment



How would you rate your confidence using digital devices? (0-10)

0 = no confidence, 10 = fully confident



In addition to the quantitative data captured through the tablet computers, qualitative data has been captured through semi-structured interviews and surveys with participants and volunteers.

Some qualitative data has been captured in format to enable it's quantitative representation.

The qualitative data highlighted key themes:

- 1. Being Active
- 2. Digital Options
- 3. Health & Prevention
- 4. Loneliness

1. Being Active

"And the fact that you know you can do something to have something like this you can do in your own home because not as I say people have issues about going out and whatever else so its a great way of still keeping something going within your own environment where you feel safe."

"After the situation I was left in I definitely needed exercise and it was a good idea to have somebody help me."

"the whole process, able to do something in my own home, doing with a buddy, made you more proactive, momentum and encouragement to keep going, range of exercises is really good, caters for all abilities, impressive. great way to keep fit no mater how old we get. older we get find ways to keep exercising without it being too strenuous."

3. Health & Prevention

"I know that I need the exercise but having someone once a week makes sure that I do it."

"I think because I definitely need it. After the situation I was left in I definitely needed exercise and it was a good idea to have somebody help me, Well I'd been in hospital six weeks which had left me pretty well with poor muscles and I needed to build up again."

2. Digital Options

"I think if you know if it was I mean from this perspective I mean if I knew that I had something like this online that I could access all the time I would definitely use it because its something I would actually want to put work into my working week you know or into my daily life to help keep myself mobile and you know and give myself some form of fitness and I think its important to have that."

"I think the as I say no apart from the you know as I said the process has been quite straightforward and I like the fact that we can choose the amount of time of exercising we want to do and you know and its great that I've been able to sort of gradually progress into doing it for a longer period of time that's a good thing."

"And I think the fact is that we can it can be any time of the day that we can access its been accessible to do so there's sort of its the flexibility of it I think that is a great idea to have flexibility"

4. Loneliness

"Also I think if you could if we you know because like G at the moment cant go out at all so once she starts moving and once she can start going out when she is able to go out having more people involved in this programme so that we have a base where five or six or ten elderly people could come together and do exercises and also meet each other and connect with each other that would be really useful"

"I think it you know even going forward its not just been about through the pandemic I think going forward in sort of initiating back into some form of normality it sort of its a form of friendship as well and I think everyone needs that to be honest with you more so now than ever because more and more people are feeling are actually realising just how lonely they have been and how lonely they are"

Volunteer Opportunities & Feedback

Enjoy volunteering

15
Total number of Volunteers

13%:87%

Male: Female

48Average age (20 - 71 years)

"I think that she is benefitting from somebody talking to her week on week"

"And its quite interesting talking to her about it, She's got some quite good stories you know and yeah."

"Its a really simple answer and I believe that we need to focus on prevention I believe that we have got elderly people in the community who are isolated lonely and a lot of issues are because they are not really integrated in the community so helping them with exercising I think its all a step in the right direction."







Project Learnings, Growth Blueprint, & Recommendations

Learning Log

A learning log from both Southwark and Kingston service was maintained throughout the HIN project.

General Learnings

- 1. Exercise is a universal language
- 2. It is important to have a network of volunteers to ensure there is support in the event of volunteer sickness/leave
- 3. Support for the volunteers greater support needed than expected, particularly around digital literacy –, older volunteers often needed more support. For volunteers in whom English is not their first language, more support was needed
- 4. Digital apps for older adults benefit from having larger font and greater contrast of colour for text to improve accessibility where possible to have web-based (laptop/smart TV) options for larger screen
- 5. Importance of engaging stakeholders to influence awareness and generate connections with key individuals/ organisations to support the project design, development and implementation
- 6. Greater support with comms: support from the beginning of the project for leaflets/flyers/social media would have been valuable

Home Exercise Specific Learning

- 8. For home exercise service visits, to have more staff availability to support the first/initial visit with the volunteer and older adults
- 9. Not just first and last visit support for volunteers, it's ongoing volunteer engagement and support
- 10. It's not just about older adults having internet/email/device it's have the confidence to use it
- 11. Volunteers having time & skills/confidence to support low-confident patient/clients with technology/apps/devices

Community Therapeutic Aquatic Service Specific Learning

- 12. A step by step guide was developed with pictures and emailed to participants. Support for participants to download and get onto the app is offered prior to sessions
- 13. The facilitator takes x 2 flasks of hot water, tea, coffee and milk each week which the King's volunteer serves after the sessions. Participants are asked to bring their own mugs
- 14. Purchased new pieces of aqua exercise equipment to substitute for noodles and possible joint deformity / swelling.
- 15. Purchased a number of spare padlocks for the Good Boost programme
- 16. Increased depth of the learner pool to 1.2m from 0.9 greater depth was preferred by patients
- 17. Weekly emails are sent reminding participants to book via Everyone Active (leisure operator/swimming pool). This encourages and motivates attendees
- 18. Building relationships with 'front of house' Everyone Active (leisure operator/swimming pool) staff and letting them know about Good Boost and its participants has been valuable in supporting patients not using the app wanting to book and pay
- 19. Try, Try and try again

Growth Blueprint (Logic Model)

Southwark:Community Therapeutic
Aqua Activity Service

INPUTS

- HIN Funding
- King's College Hospital resources
- Stakeholder support
- Good Boost resources
- Volunteers
- Local Swimming Pool

ACTIVITIES

- Delivered community therapeutic aquatic activity service
- Data collection (quantitative & qualitative)

OUTPUTS

- Aqua participating patients: 27, 275 aqua sessions completed
- 1 volunteer engaged

OUTCOMES

- Activating a population that have many barriers to exercise
- Measured improvement in MSK health outcomes
- Measured improvement in overall quality of life
- Reports of improved social support and mental wellbeing improvement
- Releasing capacity within NHS services due to supported selfmanagement options

PROCESS EVALUATION

- Barriers to project delivery due to COVID-19
- Challenges with leisure venue due to understaffing as a result of the pandemic

OUTCOME EVALUATION

- Project achieved supported self-management exercise for a population that is difficult to activate (older adults, multiple long-term health conditions, majority female)
- Project delivered the Community Aqua service in Southwark despite the challenges/barriers
- Projects measured improvement in MSK health outcomes and recorded benefits to wellbeing

IMPLEMENTAION STRATEGIES

- Engagement with key stakeholders
- Engagement with volunteering teams
- Engagement with local leisure provider

IMPLEMENTATION OUTCOMES

- Stakeholder support to enable conversations and influence to achieve project goals
- Volunteer & Physiotherapy students recruited to support the delivery of the service
- Local leisure provider engaged, enabling the delivery of the community therapeutic aquatic service in a local swimming pool

Growth Blueprint (Logic Model)

Kingston:Home Exercise Service

INPUTS

- HIN Funding
- Royal Borough of Kingston (RBK) Public Health resources
- Stakeholder support
- Good Boost resources
- Volunteers

ACTIVITIES

- Delivered home exercise service
- Data collection (quantitative & qualitative)

OUTPUTS

- Home exercise users: 9, 35 home exercise sessions completed
- 15 volunteers engaged

OUTCOMES

- Activating a population that have many barriers to exercise
- Measured improvement in MSK and Strength and balance outcomes
- Measured improvement in overall quality of life
- Reports of improved social support and mental health improvement

PROCESS EVALUATION

- Creation of volunteer delivery of a home exercise service
- Recruitment, training and DBS check of volunteers
- Barriers of COVID-19 in starting the project delivery and on-going interruption of service
- local volunteer agencies were unable to participate due to covid and RBK completed the volunteer recruitment and management

IMPLEMENTAION STRATEGIES

- Engagement with key stakeholders
- Engagement with volunteering team

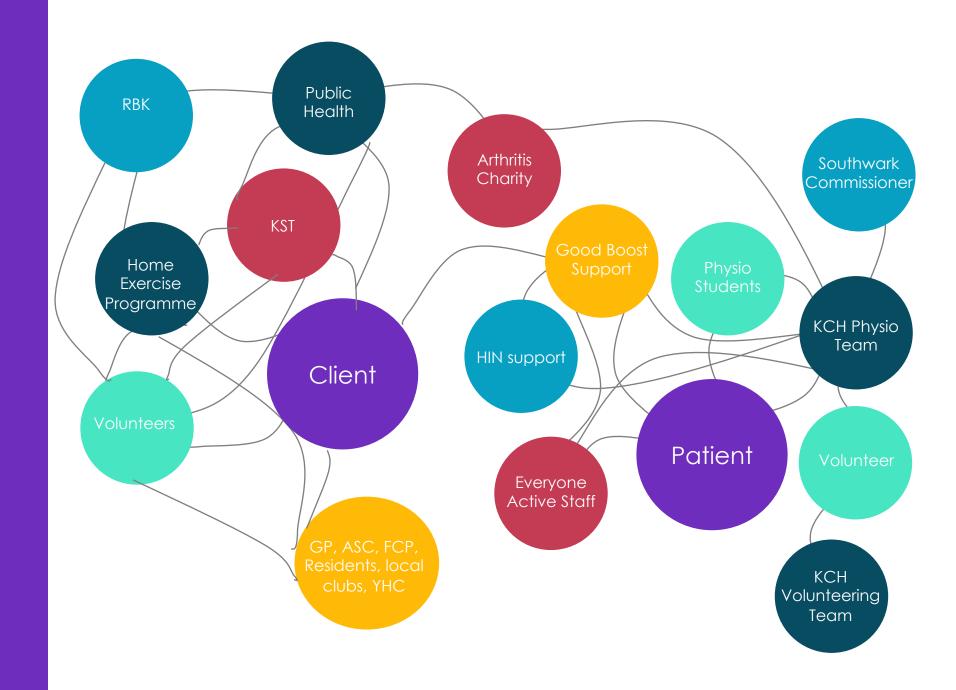
OUTCOME EVALUATION

- Project achieved exercise for a population that is difficult to activate (older adults, multiple longterm health conditions, majority female)
- Project delivered the Home Exercise service in Kingston despite the challenges/barriers
- Projects measured health outcomes and wider wellbeing improvement
- Project delivered a digital solution to a population with very low digital confidence

IMPLEMENTATION OUTCOMES

- Stakeholder support to enable conversations and influence to achieve project goals
- Volunteers recruited to support the delivery of the service

Implementation Connections Map



References

- 1. Versus Arthritis (2021) State of Musculoskeletal Health 2021. Versus Arthritis.
- 2. Cieza A, et al. (2020) Global estimates of the need for rehabilitation based on the Global Burden of Disease study 2019: a systematic analysis for the Global Burden of Disease Study 2019. The Lancet. S0140-6736(20)32340-0.
- 3. NHS England. Musculoskeletal Best Practice Solutions. Available here: https://www.england.nhs.uk/elective-care-transformation/best-practice-solutions/musculoskeletal/
- 4. Global Burden of Disease Collaborative Network. Global Burden of Disease Study 2017 (GBD 2017) Results. Institute for Health Metrics and Evaluation (IHME), Seattle, 2018
- 5. British Orthopaedic Association (2020) Current BOA position regarding elective activity, waiting lists and restart. Available here: https://www.boa.ac.uk/resources/current-boa-position-regarding-elective-activity-waiting-lists-and-restart.html
- 6. Gardner T. et al. (2020) Elective care in England. Assessing the impact of COVID-19 and where next. The Health Foundation.
- 7. Smith, T. et al. (2020) Accessing health services for musculoskeletal diseases during early COVID-19 lockdown: Results from a UK population survey. Rheumatology Advanced in Practice. 0:1-3.
- 8. Janke, K. et al. (2020) The impact of COVID-19 on chronic health in the UK. Available here: https://voxeu.org/article/impact-covid-19-chronic-health-uk
- 9. Jeraj S, et al. (2020) A rapid review into musculoskeletal conditions and the impact on Black Asian and minority ethnic people. Race Equality Foundation.
- 10. Geneen L, et al. (2017) Physical activity and exercise for chronic pain in adults: an overview of Cochrane Reviews. Cochrane Database Syst Rev. 24;4(4).
- 11. Smith B, et al. Musculoskeletal pain and exercise—challenging existing paradigms and introducing new. British Journal of Sports Medicine. 2019:53:907-912.
- 12. Arthritis Research UK. Providing physical activity interventions for people with musculoskeletal conditions. Arthritis Research UK. 2016.
- 13. Wang et al (2019) Technology-assisted rehabilitation following total knee or hip replacement for people with osteoarthritis: a systematic review and meta-analysis. BMC Musculoskeletal Disorders 20: 506.
- 14. Good Boost (2020) Data Report, 2018-2020. Submitted to SBRI MSK Technology Awards. Grey literature to be published in 2022.
- 15. Schäfer et al (2018) The efficacy of electronic health-support home exercise interventions for patients with osteoarthritis of the knee: Systematic Review. J Med Internet Res. 20(4):e152.
- 16. Allen et al. (2016) Long-term condition self-management support in online communities: A meta-synthesis of qualitative papers. J Med Internet Res. 18(3):e61.

Once last thing....

Want to collaborate and get involved, we'd love to hear from you.

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