Open access Original research

BMJ Open

PEER CONNECT: a pragmatic feasibility randomised controlled trial of peer coaching for adults with long-term conditions

Rachel Dennett ,[1,2] Tom Thompson,[2] Wendy Clyne,[2] Agne Straukiene,[1,2] Helen Davies-Cox,[1] Joanne Hosking,[2] Krystina Bones,[1] Julian Elston[1,2]

To cite: Dennett R, Thompson T, Clyne W, *et al.* PEER CONNECT: a pragmatic feasibility randomised controlled trial of peer coaching for adults with long-term conditions. *BMJ Open* 2024;**14**:e087020. doi:10.1136/bmjopen-2024-087020

► Prepublication history and additional supplemental material for this paper are available online. To view these files, please visit the journal online (https://doi.org/10.1136/bmjopen-2024-087020).

Received 17 April 2024
Accepted 03 July 2024

[1]Torbay and South Devon NHS Foundation Trust, Torquay, UK
[2]Peninsula Medical School, University of Plymouth, Plymouth, UK

Correspondence to
Dr Rachel Dennett;
rachel.dennett@plymouth.ac.uk

ABSTRACT

Objective To test the feasibility of a targeted peer coaching intervention on the health and well-being of people with long-term health conditions and low activation attending outpatient clinics at a UK National Health Service (NHS) Trust.

Design Randomised controlled feasibility trial, with embedded qualitative study.

Setting An NHS integrated health and care organisation in the South West of England, UK, with significant areas of deprivation.

Participants Patients (over 18 year of age) of the Trust's rheumatology, pain or multiple sclerosis services, with a Patient Activation Measure score at level 1 or 2.

Intervention Up to 14 sessions of peer coaching delivered in a stepped-down model delivered over 6 months.

Main outcomes Primary feasibility outcomes were recruitment, retention, intervention adherence and peer, coach and staff experience.

Secondary outcomes included psychological well-being, resource use, long-term condition management and disease-specific measures.

Results 97 potential coaches were contacted directly. 27 (27.8%) were screened and of those 21 (77.8%) were eligible and recruited into the study. For a range of reasons, only five (23.8%) progressed through training and on to deliver peer coaching. 747 potential peers were invited to take part and 19 (2.5%) were screened. Of those screened, seven (36.8%) were eligible, recruited and randomised, all white females with median age of 50 years (range: 24–82 years). One peer in the intervention group withdrew prior to receiving the intervention, the remaining four received coaching. Peers and coaches reported a range of benefits related to their health and well-being.

Conclusion Coach recruitment, training and study procedures were feasible and acceptable. Due to low peer recruitment numbers, it was decided not to progress to a definitive trial. Further research is required to explore how to engage with and recruit people reporting low levels of activation and the acceptability and effectiveness of peer coaching for this group.

Trial registration number ISRCTN12623577.

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ This was a methodologically robust feasibility study that explored peer coaching in people with a range of long-term conditions.
- ⇒ Embedding researchers within the National Health Service peer coaching service enabled learning from the study to directly influence coach training and delivery of the service in real time.
- ⇒ Training and delivery of the peer coaching was limited to online and at a single centre.
- ⇒ The approach to recruitment was not effective in recruiting people reporting low levels of activation.

INTRODUCTION

Supporting people living with a long-term health condition to 'live well' is a fundamental challenge facing the National Health Service (NHS).[1] With increasing life expectancy and advances in medical treatment, numbers of people living with one or more health conditions are projected to rise to over 9.1 million (one in five adults) by 2040.[1] One component of current NHS provision designed to address this challenge is supported self-management. This key aspect of the NHS Personalised Care Model[2] seeks to support the individual build their knowledge, skills and confidence to manage their health condition—a concept termed patient activation. People with low levels of activation (level 1 or 2 on the Patient Activation Measure (PAM)[3] are less likely to have the knowledge, skills and confidence to manage their health and more likely to miss medical appointments, have less planned care and higher GP and emergency department attendance compared with more activated patients.[4] As activation is a modifiable factor, it may be that people with low activation have the most to gain from an intervention designed to support self-management.[5]

Health coaching is one such approach.[6] The NHS recommends the commissioning of health coaching programmes with the aim of supporting patients to become active participants in their care.[7] However, national rollout and adoption of these programmes have been slow, which may be in part due to increasing demand for services and lack of resources due to stagnating budgets.[8] An emerging, alternative approach to staff delivery of coaching services is to involve patients with lived experience as coaches (peer coaches).

Within the literature, the term peer coach is often used synonymously with 'peer support worker' 'peer mentor' or 'buddy'. The role involves someone with lived experience of a health condition offering support to another individual experiencing similar health issues. Such support may be individual or group-based, in-person or online and as a formal intervention or not (such as a volunteer-led social drop-in).[9] A distinction between roles, and one particularly relevant to this paper, is whether the peer coach is specifically trained, and additionally, if they are recognised as part of the patient's care team.[9]

There is an expanding body of research exploring the effectiveness of peer coaching interventions delivered by a range of modalities; in-person[10 11]; telephone[12 13] and digital[14] and in a range of conditions such as diabetes[12 15 16] and chronic pain.[11 17 18] Several studies have demonstrated improvements in perceived physical activity,[12] quality of life,[12 16] pain[12] and depression.[15 16] The positive impact of coaching has also been reported to extend to the coaches themselves, with enjoyment, satisfaction and improved well-being as key benefits.[10 19] Delivering a peer coaching service has, however, been shown to present a number of challenges, including low intervention adherence and high drop-out rates.[11 12 16 17] Matching of peers and coaches has additionally been reported as a challenge in one UK-based randomised controlled trial (RCT) of peer mentorship for people with osteoarthritis.[19] It is noteworthy that none of these studies targeted people reporting low levels of activation.

In 2021, following consultation with service users, an NHS-integrated health and care organisation in the South West of England, UK designed and established a peer coaching service (Health Connect Coaching (HCC)) to better support self-management. The Trust serves a population of 292 000 people where high levels of poor mental health and significant pockets of deprivation are reported.[20] While the HCC service offers peer coaching to all patients, this feasibility study was designed to establish whether it would be possible to undertake a definitive multicentre RCT to determine the effectiveness of a targeted peer coaching intervention on the health and well-being of people with long-term health conditions and low activation (PAM levels 1 and 2) attending multiple sclerosis (MS), rheumatoid arthritis or chronic pain outpatient services.

METHODS

Study design

This study was a single-site, two-arm, pragmatic randomised controlled feasibility trial with an embedded qualitative component. It sought to address the following questions:

1. Are we able to identify, recruit, retain and follow-up eligible volunteer coaches and peers?
2. What is a sustainable number of peers per volunteer coach?
3. Are trial procedures acceptable to participants (peers and volunteer coaches)?
4. Can sufficient data be collected to estimate parameters needed to inform future sample size calculations?
5. Are trial outcome measures acceptable to participants (peers)?
6. Does the trial demonstrate evidence to suggest that the coaching holds promise as an effective intervention?

An embedded qualitative component included individual interviews with volunteer coaches, peers, clinic and coaching service staff, and people who declined to take part in the interventional aspect of the study. Further details including the logic model can be accessed in the published protocol paper.[21]

Participant eligibility criteria (peers and coaches)

Eligible participants were aged over 18 years and had attended a rheumatology, pain or MS outpatient clinic at the Trust. They were not taking part in any other interventional trial and were willing and able to engage in the 6 months intervention and undertake assessments at baseline, 6 and 9 months (peers). They had capacity to provide informed consent and sufficient fluency in English to engage with the intervention and trial material. Volunteer coach participants were required to be highly activated (PAM level 3 or 4), and peers lowly activated (PAM level 1 or 2).

Recruitment and sample size

The trial aimed to recruit and train 15 volunteer peer coaches and 60 peers based on predicted recruitment within the specified time frame and available resource, parameters of the population size, modelling of coach-to-peer matching and in line with recommendations for trial design.[22] This sample size allowed overall retention rate to be estimated within a 95% CI of approximately ±13%. Coaches, peers, clinic and service delivery staff, and people who declined to take part in the study completed an additional consent process to take part in the qualitative component of the research.

Recruitment of volunteer coaches and peers

Volunteer coaches (defined as participants eligible to be trained to deliver coaching) and peers (defined as participants eligible to receiving coaching) were recruited from the MS, rheumatology and chronic pain outpatient clinics. In addition, study information was mailed to patients on clinical teams' databases. Study adverts were displayed at 30 GP practices across the Trust area, a range of community venues via support groups, in local newspapers, shared via targeted social media and discussed on local radio. Recruitment commenced in November 2021, during the COVID-19 pandemic and continued (with amendments to extend the recruitment period) until February 2023. Details regarding the research journey of eligible participants can be found in the published protocol paper.[21]

Consent

Participants provided informed consent using an online form via https://www.onlinesurveys.ac.uk.

Randomisation

Following baseline data collection, peers were randomised to either the intervention or control arm on a 1:1 ratio using random permuted blocks, stratified by outpatient clinic. The randomisation list was generated and stored by a statistician not involved in the trial, and allocation was accessed through a web portal hosted by the University of Plymouth Peninsula Clinical Trials Unit.

Blinding

Blinding of participants was not possible given the nature of the intervention. Due to the small size of the research team, only the trial statistician was blinded to allocation.

Control arm

Usual care was defined as access to services and treatment provided as routine care, examples of which included attending outpatient clinic appointments, referral to therapies and signposting to community or support services as required.

Intervention arm

The intervention included up to 14 sessions with a volunteer peer coach over a 6-month period, structured (flexibly) as one session per week for the first 2 months, followed by fortnightly sessions for 2 months and monthly sessions for the final 2 months. Sessions lasted up to an hour in duration and were delivered using MS Teams (due to the ongoing pandemic). Coaches and peers were encouraged to record a summary of the content and duration of the session along with any goals set in a session 'coaching log'. In addition, peers were asked to report any adverse events (AEs) and rate their experience of being coached.[23]

Volunteer coach training and supervision

Coach training was delivered by the Trust's HCC co-ordinator. In brief, training comprised eight, weekly 90 min live group sessions incorporating evidence-based behavioural change methods,[24] motivational strategies[25] and communication techniques with a patient-centred and problem-solving approach. In addition, coaches completed weekly interactive online 'homework' tasks. Volunteer coaches were supervised and supported through monthly group and one-to-one supervision sessions as required. All coaches completed a Disclosure and Barring Service check prior to working with peers. Further details regarding the training package can be found in the study protocol paper.[21]

Matching

Following successful completion of all training sessions and competence assessment by the coach trainers, coaches were matched with a peer allocated to the intervention by the HCC coordinator. Matching criteria included having a shared or similar health condition or symptoms, and a range of other factors that peers reported were important to them such as age or sex.

Outcomes

Primary outcomes

These were:

Recruitment rate

Recruitment rates of peers and volunteer coaches were calculated as:

Peer recruitment (%)=number of peers recruited/number of eligible peers×100.

Coach recruitment (%)=number of volunteer coaches recruited/number of eligible coaches×100.

The calculation of recruitment rate was amended from that in the initial study protocol and protocol paper[21] on recommendation from the Trial Steering Committee external statistician and with agreement from the study team statistician. Complete recruitment data are provided in the Consolidated Standards of Reporting Trials (CONSORT) diagram (figure 1).

Retention and follow-up

Peer retention and follow-up rates were calculated as the proportion of peers (%) completing all questionnaires at 6 months (postintervention, retention) and 9 months (follow-up).

Coach retention was calculated as the proportion of coaches (%) who completed the training programme and coached at least one peer (defined as providing at least two coaching sessions).

Adherence

Adherence is reported as the proportion of coaching sessions attended by peers out of the total planned and mutually agreed coaching sessions (2–14 sessions).

Secondary outcomes

Peer sociodemographic and health and well-being questionnaires were completed at baseline, postintervention (6 months) and follow-up (9 months) time points. In summary, outcomes included the PAM,[3] Warwick Edinburgh Mental Well-being Scale,[26] ICEpop CAPability measure for Adults (ICECAP-A),[27] Health Confidence Score,[28] Long-Term Conditions Questionnaire[29] and a Resource use questionnaire detailing health service utilisation developed by members of the research team for use in other trials.[30 31] Additionally, participants completed a disease-specific questionnaire based on their clinical diagnosis. Further information regarding these secondary measures can be found in the protocol paper.[21] Peers were offered a £20 thank you payment for completing the outcome measures at each of the three time points.

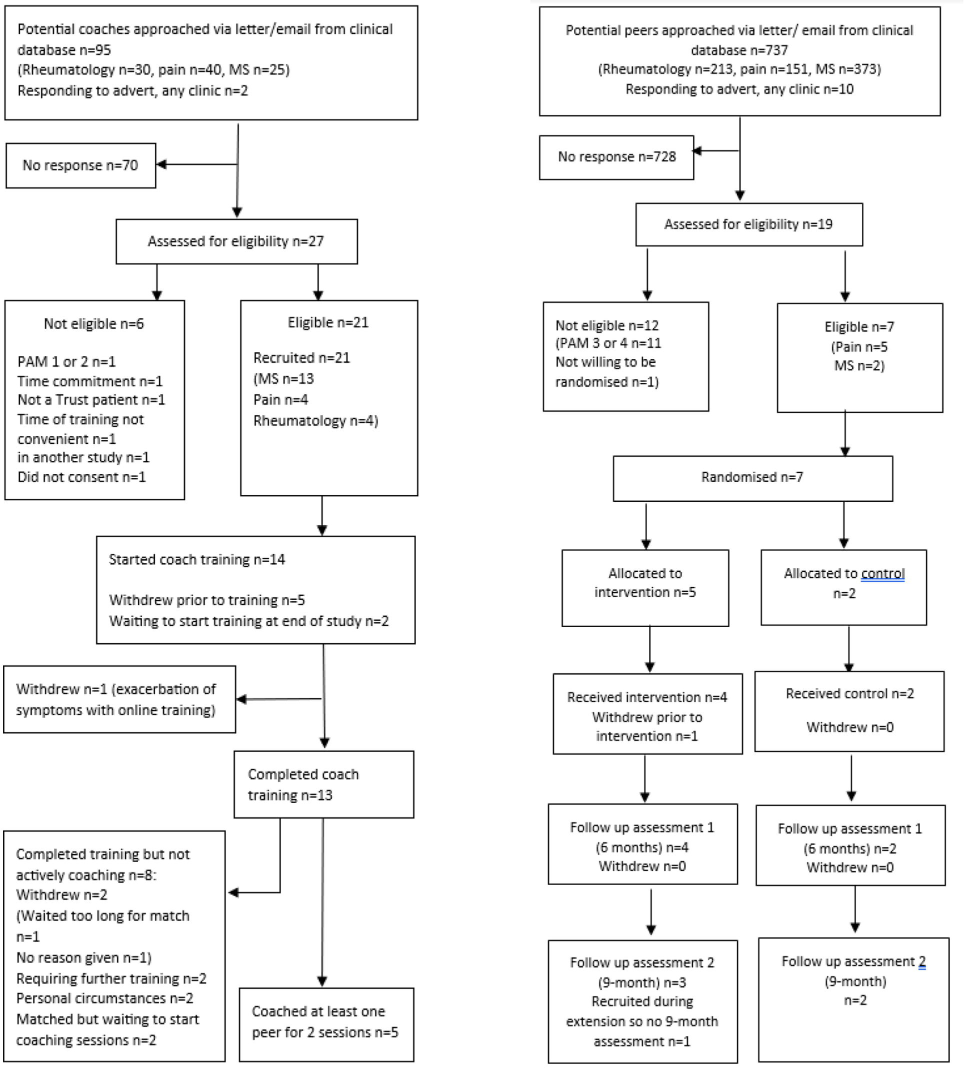

Figure 1 CONSORT diagram of COACH and PEER participant flow through the PEER CONNECT feasibility trial. MS, multiple sclerosis; PAM, Patient Activation Measure; CONSORT, Consolidated Standards of Reporting Trials.

Data have been analysed in line with the trial statistical analysis plan. Feasibility outcomes are summarised with recruitment and retention presented with 95% CIs. All quantitative secondary outcomes data were self-reported and scored in line with the author guidance. PAM scores were calculated using the algorithm from Insignia Health (https://www.insigniahealth.com/products/pam-survey). Descriptive statistics are presented for secondary outcomes at baseline, 6 and 9 months by allocated group. Between-group differences of the change in scores between baseline and each follow-up time point are presented but no inferential analysis has been performed, in accordance with CONSORT guidance.[32]

Qualitative outcomes

The views of peers, volunteer coaches, staff and those who declined to participate were explored using individual interviews. Additionally, coaching logs were reviewed, and coach group supervision sessions were observed by a researcher. Individual coach-peer sessions were not observed. Data were analysed using Framework Analysis.[33] Summary findings are presented in this paper and in greater depth in a separate qualitative paper (in press).

Progression criteria

Progression criteria to aid judgement as to whether to develop a multisite RCT were adapted from Avery *et al*,[34] as below:

1. Peer recruitment number (n≥60), plus sufficient coaches recruited to support peers (minimum 15) within the peer recruitment period (<60% stop, 60%–80% discuss and ≥80% go).
2. Adherence of peers to coaching intervention (<40% stop, 40%–60% discuss and ≥60% go).
3. Follow-up rate (based on PAM completion at 9-month follow-up) (<60% stop, 60%–80% discuss and ≥80% go).
4. Evidence to suggest efficacy that the coaching holds promise as an effective intervention (indicated by examination of the CIs of the between-group differences in PAM at 9 months and qualitative data).

Patient and public involvement

To ensure procedures and intervention delivery were acceptable and relevant to participants, they were developed with input from a patient and public involvement (PPI) group that included people with lived experience of the targeted conditions (n=7, 2 women). Further details regarding the input of the group can be found in our protocol paper.[21] The findings of this trial and possible next steps have been shared with participants and discussed with an additional two people, both who have expressed interest in being coached. All PPI consultations have been completed in line with the National Institute for Health and Care Research (NIHR) guidelines, including financial reimbursement.[35]

RESULTS

Figure 1 presents the CONSORT diagram[32] for study recruitment, consent and participation.

Participant recruitment

In relation to coaches, 97 patients were contacted directly or contacted the study after seeing advertising. Just over a quarter were screened (27/97 (27.8% (95% CI 19.2% to 37.9%)) of which 21 (77.8% (95% CI 57.7% to 91.4%)) were eligible and subsequently recruited into the study. Nearly all recruits came from contacting patients directly, using administrative systems (95/97).

In relation to peers, 737 patients were invited directly to participate and an additional 10 contacted the study having seen the advertising. Of the 747 potentially eligible patients, 19 (2.5% (95% CI 1.5% to 3.9%)) were screened and 7/19 (36.8% (95% CI 16.3% to 61.6%)) were eligible to participate. 11 of the 12 patients screened out were ineligible because their PAM scores were too high. Online supplemental file 1 illustrates how participants became aware of the study.

Participant characteristics

Peers had a median age of 50 years (range 24–82 years) and were all white females. Two people were living with MS, two with a chronic pain condition, one with a rheumatology condition and one had both pain and rheumatology diagnoses. Peers were recruited from the Trust's MS service (n=5) and pain service (n=2). Only one person had been living with their condition for more than 5 years. Further information regarding peer participant characteristics is presented in table 1. Coaches were recruited from MS (n=13) pain (n=4) and rheumatology (n=4) clinics. All coaches (based on service level data) were white, with a female:male ratio of 3:1 and an average age of 58 (range 25–80) years. Most coaches had lived with their condition for more than 10 years.

Retention

Coach retention (5/21) was 23.8% (95% CI 8.2% to 47.2%). Peer retention at 6 months (6/7) was 85.7% (95% CI 42.1% to 99.6%) and 5/6 (83.3% (95% CI 35.9% to 99.6%)) at 9 months. As outcomes were completed as a 'booklet' via onlinesurveys.co.uk, participants could only submit responses once all the questionnaires were complete, ensuring no missing data for the outcomes peers were requested to complete. One peer was recruited towards the end of the 3 months extended recruitment period where the amended protocol (version 5) defined that follow-up would only be at 6 months, hence the 9-month denominator is 6. Due to an error with the setup of the data collection system (a protocol deviation) 6 and 9 months PAM data collection was delayed.

Coaching delivery

All coaching sessions were delivered online except on two occasions where one pair used the telephone because the coach had difficulty accessing the online meeting link. One peer needed to be rematched with a second coach (online supplemental files 2, 1B) when the initial one (1a) withdrew from the study. Three of the pairs followed the planned stepped approach to coaching. However, the other two pairs modified the structure for several reasons, including forgetting how many sessions they had completed and booking additional sessions to replace any missed ones. On average 55.7% (range 0–100) of coaching logs were received back from coaches. Despite the HCC coordinator prompting, no coaching logs were received in one case and on about half of the occasions for two other coaches. Excluding pairings 1a and 4, peers received an average of 13 (range 11–14) sessions over 203 (range 154–240) days. Where logs were not received, session times were assumed as the time allocated to the online booking. Sessions lasted an average of 55 (45–60) min. Further details regarding the coaching delivery are presented in online supplemental file 2.

Intervention adherence

Excluding pair 4, mean adherence to the intervention was 94.8% as detailed in online supplemental file 2. In total, 19.5% of planned sessions were cancelled and rebooked for a variety of reasons such as health and social factors of both the peer and coach. There were two occasions where sessions were missed due to coach error.

Secondary outcomes

Summary results (by allocation and at each time point) in each of the outcomes are reported in online supplemental files 3 and 4 and illustrated in figure 2. Although these may suggest a trend towards improvement the small numbers and feasibility study research design mean it is not possible to assess a signal of efficacy. Additional information regarding condition-specific outcomes can be found in online supplemental files 5 and 6.

Qualitative outcomes

Online individual interviews were conducted with two people who declined to participate as a coach (n=2 women, mean length of interview 22 min) (all eligible peers were recruited), 11 coaches after training (n=10 women, mean length of interview 49 min), 5

Table 1 Summary statistics of peer participant baseline characteristics and demographics overall and by allocated group

	Allocation					
	Control (N=2)		**Intervention (N=5)**		**Total (N=7)**	
Age (years) Median (Min, Max)	66.0	(50.0, 82.0)	48.0	(24.0, 81.0)	50.0	(24.0, 82.0)
Gender						
Female	2	100.0%	5	100.0%	7	100.0%
Ethnicity						
White	2	100.0%	5	100.0%	7	100.0%
Place of residence						
Flat/apartment	0	0.0%	2	40.0%	2	28.6%
House/bungalow	2	100.0%	3	60.0%	5	71.4%
Living with someone						
Live alone	0	0.0%	2	40.0%	2	28.6%
Child(ren)	1	50.0%	0	0.0%	1	14.3%
Spouse or partner	1	50.0%	2	40.0%	3	42.9%
Spouse/partner and child(ren)	0	0.0%	1	20.0%	1	14.3%
Occupation						
Unemployed	0	0.0%	1	20.0%	1	14.3%
Part-time paid work	0	0.0%	1	20.0%	1	14.3%
Full-time paid work	0	0.0%	1	20.0%	1	14.3%
Age retired	1	50.0%	1	20.0%	2	28.6%
Other	1	50.0%	1	20.0%	2	28.6%
Highest level of education						
University degree or equivalent	1	50.0%	1	20.0%	2	28.6%
Higher Education qualification (below degree level)	0	0.0%	1	20.0%	1	14.3%
GCE/GCSE A-levels or equivalent	0	0.0%	1	20.0%	1	14.3%
GCE/GCSE O-levels or equivalent	1	50.0%	1	20.0%	2	28.6%
No formal qualifications	0	0.0%	1	20.0%	1	14.3%
Most commonly used mobility aid						
None	0	0.0%	4	80.0%	4	57.1%
One walking stick/crutch	2	100.0%	0	0.0%	2	28.6%
Walker/frame	0	0.0%	1	20.0%	1	14.3%
Diagnosed condition						
Multiple sclerosis	0	0.0%	2	40.0%	2	28.6%
Rheumatology condition	0	0.0%	1	20.0%	1	14.3%
Chronic pain condition	1	50.0%	1	20.0%	2	28.6%
Rheumatology and pain condition	1	50.0%	1	20.0%	2	28.6%
Duration of condition						
1–5 years	1	50.0%	5	100.0%	6	85.7%
6–10 years	1	50.0%	0	0.0%	1	14.3%

A-level, Advanced level; GCE, General Certifiate of Education; GCSE, General Certificate of Secondary Education; O-level, Ordinary level.

after coaching (n=5 women, mean length of interview 46 min) and 6 peers (four intervention and two control) (n=6 women, mean length of interview 32 min). In addition, two group supervision sessions (mean duration 50 min) were observed and all returned coaching logs (online supplemental file 2) were reviewed by the HCC co-ordinator to inform the research team discussions. Informal discussions were held as planned with members of the clinical (n=4), administration (n=1) and HCC (n=2) teams throughout the study.

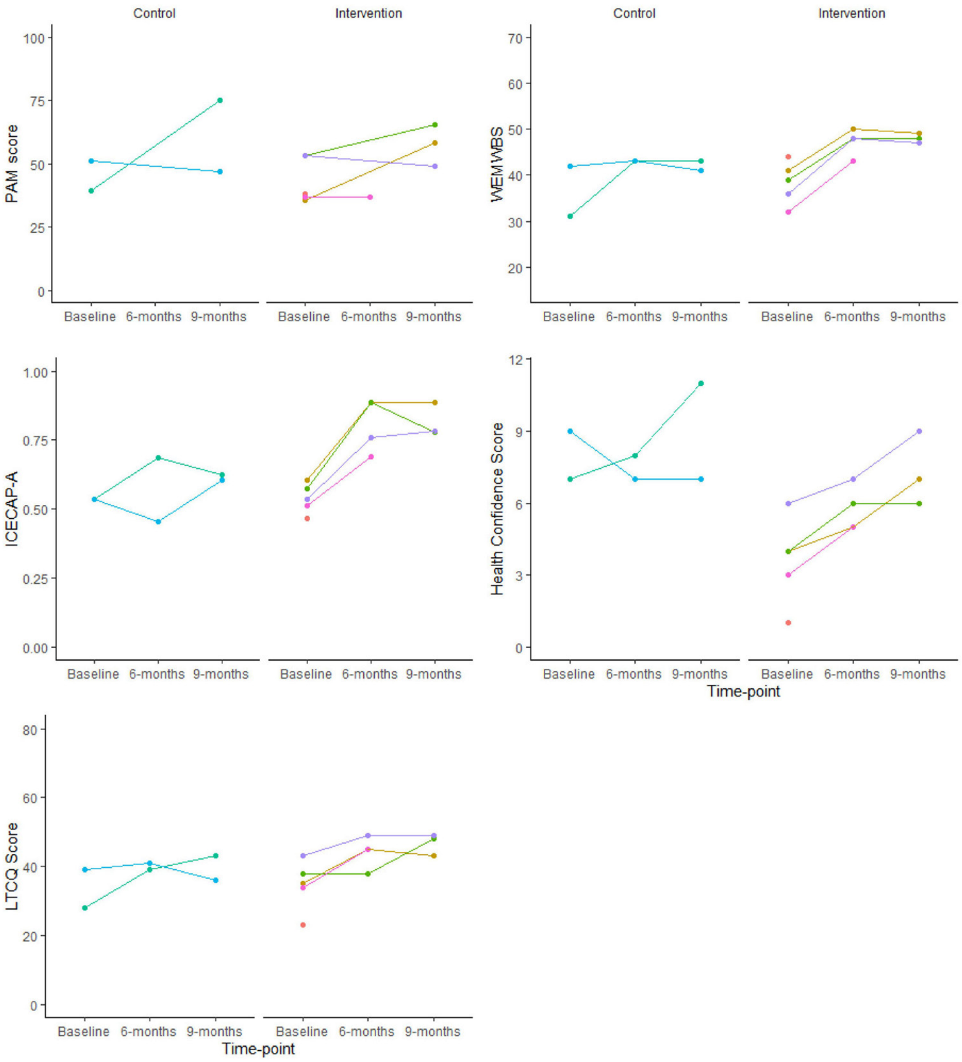

Figure 2 Changes in clinical outcomes over time. LTCQ, Long-Term Conditions Questionnaire; PAM, Patient Activation Measure; WEMWBS,Warwick Edinburgh Mental Well-being Scale; ICECAP-A, ICEpop CAPability measure for Adults.

In general, study participants reported that the study information and processes including recruitment, outcome measure completion, randomisation and interview participation were acceptable. Only one-third of peers claimed the thank you payment for completing outcome measures. Analysis by the different interview groups is summarised below.

Decliners (n=2 interviews)

The main reasons for declining to take part as a coach related to not feeling that they were managing their condition as well as the referring clinician had thought, an excessive time commitment, concern that use of volunteer peer coaches could undermine existing clinical services and unclear expectations about the role.

Staff (n=7 informal discussions and data from coaching logs and coach supervision sessions)

Staff identified several issues they felt had impacted peer recruitment: Increased service demand, reduced staffing levels and redeployment, limiting staff time to refer patients to the programme. In addition, higher patient acuity due to the ongoing COVID-19 pandemic increased clinicians' workload and reduced time for discussion about participation in research. Potential suggestions to improve recruitment included increasing clinician confidence in the intervention, and the potential benefit of having a 'champion' for peer coaching from each clinical service involved in the ongoing development and delivery of the HCC service. In addition, some clinicians questioned whether a coaching role was suitable for a volunteer while others said they were uncertain which patients to refer (despite receiving the study materials). Finally, one team noted that, in the main, their lower activation patients generally requested face-to-face appointments and, as such, questioned whether on-line delivery might be a barrier.

Coaches (n=11 interviews after receiving training, n=5 after experience of coaching)

Coaches identified several challenges related to participating in the study. These included navigating the Trust's process to become a volunteer, lengthy waits to start the training (as it was a new service and trainers needed to wait for enough coaches to run a cohort) and more time waiting to be matched to a peer (low peer recruitment rate being a major issue). Additionally, difficulties accessing the online training and confidence in setting up or using MS Teams meetings were reported. In the main, these issues were fed back to the service who modified and refined the intervention issue accordingly, such that coaches did not raise these issues in subsequent interviews. In relation to the training, coaches found the blended format, structure, pace and delivery acceptable. A couple of coaches remarked that the level of commitment was greater than they had initially expected, and one person would have appreciated additional support to manage the comprehensive training material while living with a condition resulting in cognitive difficulties.

Delivery

Coaches demonstrated an understanding of the key coaching concepts (such as being peer-centred and using a problem-solving approach) and reported using a range of coaching tools in their sessions. About half of coaches reported preferring a planned coaching format and use of tools while the others preferred a more flexible, unstructured approach.

A challenge for some coaches was learning how to facilitate their peer to make changes driven by intrinsic motivation rather than 'telling' peers what to do. Like peers, coaches recognised the importance of a 'good match', recognising similar life experiences, symptoms or condition as important in establishing connection. All the coaches interviewed reported only wanting to coach one person at a time initially. Two coaches suggested they may consider taking on an additional peer once the first had progressed to monthly sessions.

Coach supervision sessions run by the HCC co-ordinator were variably attended but those who did attend reported them to be helpful in providing an opportunity to discuss coaching-related anxieties, which in turn helped develop and build their confidence. Coaches suggested several areas for development: individualising coach support, facilitating coaches to take on more responsibility for planning and arranging sessions (currently done by the HCC co-ordinator), developing a 'coaching schedule' to help plan sessions and ensuring that the training programme included more discussion of safeguarding issues.

Impact of coaching

Nevertheless, most coaches recognised not only the positive outcomes for their peers but also for themselves, including increased confidence, an opportunity to reflect on personal strengths, and increased potential for personal development.

Peers (n=6 interviews after receiving coaching, n=4 intervention and n=2 control)

In terms of the intervention, several factors were highlighted, including concurring with coaches about the importance of a good coaching match, particularly in sharing a common condition. They reported that having a shared experience enabled coaches to demonstrate empathy and understanding, quickly establishing an effective coaching relationship with them. This helped peers feel confident and empowered to access and navigate services they had been signposted to.

Some of the practical aspects of coaching sessions were also discussed, with flexibility in how the coaching was delivered and structured being especially valued. Some peers also suggested a few amendments to the process, such as being able to contact their coach directly (rather than through the HCC coordinator), having a 'coaching schedule' to help them keep track of sessions and the language used, with some preferring other terms to that of 'peers' and 'coaches'.

Feedback from peers about the study methods was, in the main, positive. One important issue raised by a control group participant was the negative impact of being allocated to the control group after they had 'pinned hope' on accessing a new intervention, only to be informed that they couldn't receive it until after the study finished. Interestingly, this participant used the initial disappointment as a motivation to engage in a different intervention, with a positive outcome.

Adverse events

There was one related AE, an exacerbation of symptoms related to an increase in computer screen use during the training sessions.

DISCUSSION

To our knowledge, this is the first study to test the feasibility of volunteer peer coaching in people living with a long-term condition and reporting low levels of activation as measured by the PAM. It demonstrated that it was possible to recruit sufficient coaches to support the development of a multisite trial. Peer recruitment, on the other hand, was a significant challenge, with only 11.7% of the target number recruited despite our multistranded recruitment strategy. It was not clear if this was due to lowly activated patients not wanting or feeling able to participate in a research study, lack of demand for coaching or both. Low activation has been shown to correlate with higher deprivation scores,[36] and deprivation with lower participation rates in research studies, suggesting other contextual factors may also have contributed to the low recruitment rate. Interestingly, there were a similar number of highly activated patients excluded from the study as those who participated, suggesting demand might not be related to PAM level.

Beside the challenge of recruiting peers, those who did participate reported trial procedures and outcome measures to be acceptable and feasible. It was not possible, however, to test the feasibility of delivering coaching to larger numbers of peers simultaneously as had been planned. In contrast with previous studies,[11 12 16 17] retention of peers was high and intervention adherence was good. Both peers and coaches reported mostly positive experiences and a range of personal benefits which may in part have been due to the successful matching process. Other factors raised such as the pragmatic and flexible approach to intervention delivery have also been positively associated with supporting person-centred care.[37] Similarly, the quantitative data collected (although limited) seemed to indicate improvements in some of the health and well-being outcomes.

The aim of this study was to target patients with low activation who, by definition, lack the confidence as well as knowledge and skills to self-manage. It was initially hoped that support from a trusted clinician (alongside adverts and invitation letters) would be sufficient to engage people with the research, however, this was not the case. A significant issue was the impact that the COVID-19 pandemic had on the delivery of clinical services, with clinical staff reporting that allocating time to discussing research opportunities was a low priority in the face of higher demand and patient acuity. The impact of the global pandemic on research participation has similarly been reported by others.[38] Our findings also suggest the importance of codesigning interventions with clinical teams. Although there was some input in the early development stage, teams may have felt more inclined to recommend the intervention to patients if they had been more consistently involved in its development. Attitudes towards research and 'buy-in' from clinical teams (as well as competing priorities and limited appointment times) have been reported as barriers to patient recruitment to clinical research elsewhere.[39]

Future studies seeking to improve supported self-management in patients who are lowly activated may need to pay particular attention to their recruitment methods. Research in 'under-represented' groups in healthcare suggests the need for prior meaningful engagement with target populations to increase interest, build trust[40] and improve participation (see Mullin's framework).[41] Our study findings suggest that although there appears to be some need for a coaching service, our approach to recruitment may have excluded those it was designed to support most. Further exploration of whether peer coaching is of interest to people not currently engaged with services is required, as is how engagement in research may be more effectively supported.

Study strengths and limitations

This was a methodologically robust feasibility study utilising a university researcher embedded within an NHS service. It incorporated codesign which enabled insights from the analysis to be used iteratively to improve the coach training package and service delivery in real time. Peer recruitment was a significant challenge as were some of the practicalities of running a new service and research study contemporaneously. These included ensuring enough coaches were recruited to enable training to commence and having sufficient opportunities for trained coaches to maintain competency despite the low numbers of peers. Low peer recruitment limited the study's ability to address all research questions as intended. Fundamentally the study highlighted the need to look afresh at how healthcare and research engagement opportunities are offered to people living with a long-term condition when they report low levels of health confidence, knowledge and skills.

Conclusion

Voluntary peer coaching offers the potential to support lowly activated patients with long-term conditions to better self-manage. Our study showed developing a multisite study to evaluate such an intervention was feasible and acceptable in terms of coach recruitment, training and study procedures. However, due to challenges in recruiting peers, it was decided not to progress to a definitive trial. Further research is required to ascertain the need for peer coaching, and how best to engage and recruit patients with low activation levels.

Reporting guidelines

This study is reported in accordance with the CONSORT 2010: extension to randomised pilot and feasibility trials guidelines.[42]

Acknowledgements The authors would like to acknowledge Liz Seward and Annette Thom for their assistance with conducting literature reviews. In addition, the study PPI group and trial steering committee for their involvement in the design of this study.

Contributors JE, WC, TT, JH, HD-C and AS developed the study design and methods. RD, AS, JE, WC, TT, JH, HD-C and KB were responsible for the conduct of the study. Analysis was completed by RD, TT and JE. Each of the named authors contributed to the reporting of this work. JE is responsible for the overall content (as guarantor).

Funding This work was funded by Torbay Medical Research Fund, grant number 'project 137'.

Disclaimer The Funder had no role in trial design, conduct, data analyses and interpretation, manuscript writing, or dissemination of results.

Competing interests None declared.

Patient and public involvement Patients and/or the public were involved in the design, or conduct, or reporting, or dissemination plans of this research. Refer to the Methods section for further details.

Patient consent for publication Not applicable.

Ethics approval All aspects of the trial protocol were approved by the London—Surrey Research Ethics Committee, reference 21/LO/0715 in November 2021.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement Data are available on reasonable request. Request for anonymised data from this trial should be directed to julian.elston@nhs.net.

ORCID iD

Rachel Dennett http://orcid.org/0000-0003-0400-0502

REFERENCES

1. Raymond A,T, Head A, *et al*. *Health in 2040: projected patterns of illness in England*. The Health Foundation, 2023. Available: https://www.health.org.uk/publications/health-in-2040
2. NHS England. Comprehensive model of personalised care, 2019. Available: https://www.england.nhs.uk/personalisedcare/comprehensive-model-of-personalised-care/
3. Hibbard JH, Stockard J, Mahoney ER, *et al*. Development of the patient activation measure (PAM): conceptualizing and measuring activation in patients and consumers. *Health Serv Res* 2004;39:1005–26.
4. Bu F, Fancourt D. How is patient activation related to healthcare service utilisation? evidence from electronic patient records in england. *BMC Health Serv Res* 2021;21:1196.
5. Hibbard JH, Greene J. What the evidence shows about patient activation: better health outcomes and care experiences; fewer data on costs. *Health Aff (Millwood)* 2013;32:207–14.
6. Sforzo GA, Kaye MP, Todorova I, *et al*. Compendium of the health and wellness coaching literature. *Am J Lifestyle Med* 2018;12:436–47.
7. NHS England and NHS Improvement 2020: Health Coaching. Implementation and quality summary guide support self-management, 2023. Available: https://www.england.nhs.uk/publication/health-coaching-summary-guide-and-technical-annexes
8. Robertson R, Wenzel L, Thompson J, *et al*. *Understanding NHS financial pressures: how are they affecting patient care?* The Kings Fund, 2017. Available: https://www.kingsfund.org.uk/publications/understanding-nhs-financial-pressures
9. NHS England. Supported self-management: peer support guide, 2023. Available: https://www.england.nhs.uk/long-read/peer-support
10. Anderson AM, Lavender EC, Dusabe-Richards E, *et al*. Peer mentorship to improve self-management of hip and knee osteoarthritis: a randomised feasibility trial. *BMJ Open* 2021;11:e045389.
11. Matthias MS, Bair MJ, Ofner S, *et al*. Peer support for self-management of chronic pain: the evaluation of a peer coach-led intervention to improve pain symptoms (ECLIPSE) trial. *J Gen Intern Med* 2020;35:3525–33.
12. Andreae SJ, Andreae LJ, Richman JS, *et al*. Peer-delivered cognitive behavioral training to improve functioning in patients with diabetes: A cluster-randomized trial. *Ann Fam Med* 2020;18:15–23.
13. Small N, Blickem C, Blakeman T, *et al*. Telephone based self-management support by “lay health workers” and “peer support workers” to prevent and manage vascular diseases: a systematic review and meta-analysis. *BMC Health Serv Res* 2013;13:533.
14. Fortuna KL, Naslund JA, LaCroix JM, *et al*. Digital peer support mental health interventions for people with a lived experience of a serious mental illness: systematic review. *JMIR Ment Health* 2020;7:e16460.
15. Andreae SJ, Andreae LJ, Richman JS, *et al*. Peer-delivered cognitive behavioral therapy-based intervention reduced depression and stress in community dwelling adults with diabetes and chronic pain: A cluster randomized trial. *Ann Behav Med* 2021;55:970–80.
16. Khodneva Y, Safford MM, Richman J, *et al*. Volunteer peer support, diabetes, and depressive symptoms: results from the ENCOURAGE trial. *J Clin Transl Endocrinol* 2016;4:38–44.
17. Matthias MS, Daggy J, Ofner S, *et al*. Exploring peer coaches’ outcomes: findings from a clinical trial of patients with chronic pain. *Patient Educ Couns* 2020;103:1366–72.
18. Shue SA, McGuire AB, Matthias MS. Facilitators and barriers to implementation of A peer support intervention for patients with chronic pain: A qualitative study. *Pain Med* 2019;20:1311–20.
19. Lavender EC, Dusabe-Richards E, Anderson AM, *et al*. Exploring the feasibility, acceptability and value of volunteer peer mentors in supporting self-management of osteoarthritis: a qualitative evaluation. *Disabil Rehabil* 2022;44:6314–24.
20. Torbay and. Our strategy summary document 2021, Available: https://www.torbayandsouthdevon.nhs.uk/uploads/our-strategy.pdf
21. Dennett R, Thompson T, Clyne W, *et al*. Protocol for a pragmatic feasibility randomised controlled trial of PEER coaching for adults with long-term conditions: PEER CONNECT. *BMJ Open* 2022;12:e059966.
22. Sim J, Lewis M. The size of a pilot study for a clinical trial should be calculated in relation to considerations of precision and efficiency. *J Clin Epidemiol* 2012;65:301–8.
23. Miller S, Duncan B, Johnson L. The session rating scale 3.0, 2000. Available: https://www.scottdmiller.com/wp-content/uploads/documents/SessionRatingScale-JBTv3n1.pdf
24. Simmons LA, Wolever RQ. Integrative health coaching and motivational interviewing: synergistic approaches to behavior change in healthcare. *Glob Adv Health Med* 2013;2:28–35.
25. Lundahl BW, Kunz C, Brownell C, *et al*. A meta-analysis of motivational interviewing: twenty-five years of empirical studies. *Res Soc Work Pract* 2010;20:137–60.
26. Putz R, O’hara K, Taggart F, *et al*. *Using WEMWBS to measure the impact of your work on mental wellbeing: a practice-based user guide*. Coventry City Council, NHS Coventry: Warwick Medical School, 2012.
27. Al-Janabi H, Flynn TN, Coast J. Development of A self-report measure of capability wellbeing for adults: the ICECAP-A. *Qual Life Res* 2012;21:167–76.
28. Benson T, Potts HWW, Bark P, *et al*. Development and initial testing of a health confidence score (HCS). *BMJ Open Qual* 2019;8:e000411.
29. Potter CM, Batchelder L, A’Court C, *et al*. Long-term conditions questionnaire (LTCQ): initial validation survey among primary care patients and social care recipients in england. *BMJ Open* 2017;7:e019235.
30. Thorn JC, Brookes ST, Ridyard C, *et al*. Core items for a standardized resource use measure: expert delphi consensus survey. *Value Health* 2018;21:640–9.
31. Ridyard CH, Hughes DA, DIRUM Team. Development of a database of instruments for resource-use measurement: purpose, feasibility, and design. *Value Health* 2012;15:650–5.
32. Eldridge SM, Chan CL, Campbell MJ, *et al*. CONSORT 2010 statement: extension to randomised pilot and feasibility trials. *BMJ* 2016;355:i5239.
33. Ritchie J, Spencer L. Qualitative data analysis for applied policy research. *A Qual* 1994;173–94.
34. Avery KNL, Williamson PR, Gamble C, *et al*. Informing efficient randomised controlled trials: exploration of challenges in developing progression criteria for internal pilot studies. *BMJ Open* 2017;7:e013537.
35. Health and Care Research Wales, Health Research Authority and NIHR, Payment for Public Involvement in Health and Care Research: A guide for organisations on determining the most appropriate payment approach, 2022. Available: https://www.nihr.ac.uk/documents/payment-for-public-involvement-in-health-and-care-research-a-guide-for-organisations-on-employment-status-and-tax/30838
36. Wood CR, Dale JE. OA21 Use of the patient activation measure in rheumatology outpatients. *Rheumatology (Sunnyvale)* 2023;62:62.
37. Bartels EA, Meijboom BR, Nahar-van Venrooij LMW, *et al*. How service modularity can provide the flexibility to support person-centered care and shared decision-making. *BMC Health Serv Res* 2021;21:1245.
38. Sathian B, Asim M, Banerjee I, *et al*. Impact of COVID-19 on clinical trials and clinical research: A systematic review. *Nepal J Epidemiol* 2020;10:878–87.
39. Farrar N, Elliott D, Houghton C, *et al*. Understanding the perspectives of recruiters is key to improving randomised controlled trial enrolment: a qualitative evidence synthesis. *Trials* 2022;23:883.
40. Kauffman KS, dosReis S, Ross M, *et al*. Engaging hard-to-reach patients in patient-centered outcomes research. *J Compar Effect Res* 2013;2:313–24.
41. Powell MP, Young AJ, Kim H. A journey in capacity building: revisiting the mullins framework for meaningfully engaging patients in patient centered outcomes research. *Front Public Health* 2018;6:343.
42. Eldridge SM, Chan CL, Campbell MJ, *et al*. CONSORT 2010 statement: extension to randomised pilot and feasibility trials. *Pilot Feasibility Stud* 2016;2:64.