HHPA Evaluation

A mixed-method impact, economic and process evaluation of how a peer advocacy intervention for people experiencing homelessness in London facilitates access to health care and enables well-being

Study Protocol

Contents

Overview

People experiencing homelessness suffer extreme health inequalities. The average age of death is 47 years for homeless people and even lower for women (43 years), they are between 5-7 times more likely to die prematurely than the general population. Homeless people are more vulnerable to tuberculosis, hepatitis C and HIV, injury and chronic physical and poor mental health that result from limited access to health care and harsh living conditions. Access to health services is hindered by organisational challenges, fear of stigma and difficulties reconciling daily demands of being homeless with prioritising care. As a result, presentation at health care is delayed until it is urgent and use of accident and emergency services and hospitals is high; this represents potentially avoidable ill-health and distress, but also significant health system costs. The health care costs of homeless people are estimated to be 8 times higher than the general population. Groundswell, a third sector organisation, have pioneered Homeless Health Peer Advocacy (HHPA) among homeless populations in London, a model that is being adapted by others. Peer advocates who themselves have experience of homelessness provide one-to-one support to attend health care appointments. The availability of a trusted advocate, with similar experience, to guide health care encounters; overcome logistical, structural and psychosocial challenges; and enhance individual and community understanding could be an acceptable, effective and cost-efficient intervention. There is limited evidence showing the impact of peer advocates on health service utilisation and other health and social outcomes, nor the mechanisms through which the intervention works. Further evidence would facilitate development and scale-up of the intervention among homeless and other vulnerable populations in London and elsewhere.

This research will evaluate how and to what extent the intervention changes the way homeless populations use outpatient and emergency services and how it shapes other health and social outcomes (e.g. mental health, drug use and access to drug and alcohol or mental health services).

Groundswell’s model of Homeless Health Peer Advocacy (HHPA)

Groundswell is a registered charity established in 1996 and consisting of 18 staff and between 20-30 volunteers. Approximately two thirds of staff have previous or current experience of homelessness themselves. Through the HHPA, Groundswell has been providing services in Westminster since 2010 and now in Hammersmith and Fulham, Kensington and Chelsea, Camden, Tower Hamlets and are about to start in Greenwich. They also have skeleton funding and take limited referrals in Southwark, Lambeth and Lewisham.

The HHPA intervention seeks to empower people experiencing homelessness to overcome barriers to accessing health care through the provision of intensively trained peer advocates, all of whom have experience of homelessness themselves. The Groundswell model of peer advocacy fits within a broader typology of peer involvement in health care processes.[1] It differs from informal support such that people might give each other within a hostel or street setting, or organised support groups and communities since it is unidirectional and intentional.[2] It is further distinguished by being service and professional led, rather than community led[3] as in forms of community mobilisation and activism. Peer advocates are volunteers, with some progressing to being salaried staff members. Peer advocacy supports clients by accompanying them to, and enabling, appointments at health care services (primary care, outpatient appointments, dentists and podiatrists), including facilitating understanding and supportive interaction with healthcare professionals. They provide logistical and psycho-social support prior to appointments, facilitate communication with health care providers and staff within care interactions, remembering information that can be reported back to key workers to facilitate integrated care for homeless people. Secondary activities for peer advocates include awareness raising of health needs and care access opportunities within street and hostel settings (an activity called 'inreach'). In 2017 HHPA was extended to address mental health needs, and has just received funding to create a new Homeless Women's Health project focusing on piloting innovative mutual support systems. In 2018 Groundswell will start supporting local agencies around the UK to replicate HHPA using a Social Franchising model. To date, a total of 53 peer advocates have completed training, 21 of whom have subsequently moved into paid employment.[4]

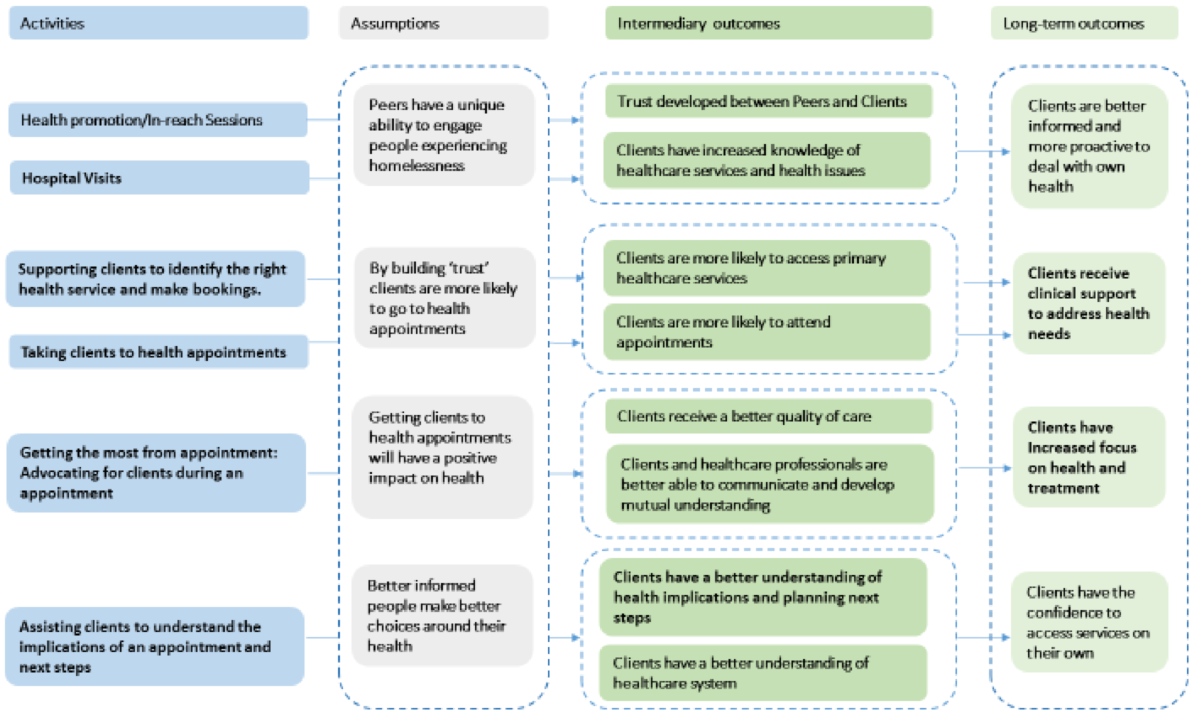

Figure 1: Groundswell HHPA Theory of Change

Aims and objectives

The overall study aims to evaluate peer advocacy among homeless populations in London in terms of impact, cost-effectiveness and process. The study has 7 objectives.

The study objectives are:
1. To explore the mechanisms, contexts and outcomes for HHPA and how they interplay with broader social and structural factors that shape health and social welfare and affect access to services to refine our working 'theory of change' (figure 1).
2. To explore the range of social and health outcomes the peer support programme brings to the peers themselves, and the mechanisms and contexts for this.
3. To measure the effect of engagement with HHPA on the utilisation of health services (planned outpatient appointments, use of emergency services and hospital admissions).
4. To measure how rates of utilisation of health services change before and following engagement with peer advocates.

5. To measure associations between (non)engagement with peer advocacy on health and social outcomes and access to health services, including the mediating effect of other macro-structural, community and individual factors (based on our theory of change).
6. To perform an economic evaluation of the HHPA compared to no provision on attendance at health services and the health and social welfare of homeless populations.
7. To assess the fidelity, acceptability and reach of the intervention.

Research questions

We will address four research questions:
RQ1-2: How (RQ1) and to what extent (RQ2) do peer advocacy interventions affect homeless peoples' utilisation of health services, physical and mental health, drug and alcohol use, including in interaction with other macro-structural, community and environmental factors?
RQ3: How do peer advocacy projects influence the health and social outcomes of peer advocates?
RQ4: What are the costs and cost-savings associated with the provision of peer advocates?

Research team

Prof Lucy Platt – Principal Investigator, LSHTM

Lucy Platt (LP) is a Public Health Epidemiologist with expertise in mixed-methods evaluations of complex interventions among excluded populations, particularly sex workers and people who inject drugs. She will oversee the study, in particular component B and supervise the work of the Research Fellow.

Dr Sujit Rathod – LSHTM

Sujit will be responsible for the day-to-day set up and recruitment of participants into the cross-sectional study, including: design of the questionnaire; recruitment methods; collation of NHS numbers, date of birth and GP address for data linkage; confidential storage of behavioural data; and supervision of four co-researchers (see below). He will work under the guidance of Dr Lucy Platt. He will collaborate with Andy Guise over participatory research methods and integrating findings from the qualitative study into the questionnaire and he will design the sampling strategy to inform the propensity score matching, as well as with Martin Burrows and Kate Bowgett at Groundswell. He will conduct statistical analysis, with advice from a statistician.

Dr Andy Guise – Co-investigator, qualitative lead Kings College London

Andy Guise (AG) is a qualitative social scientist with experience of health services and public health intervention research with drug using and excluded populations. He will lead the qualitative study (component A), supervising a Research Associate and co- researchers and assist in the overall implementation of the study.

Dr PJ Macleod – Kings College London

PJ will be responsible for the day-to day implementation of the qualitative study. This will include refining development of data collection strategies, working with Groundswell in recruiting interview participants, conducting interviews and observation across a range of setting, and then implementing analysis. They will work under the supervision of Dr Andy Guise, whilst working closely with the investigating team, peer researchers supporting the qualitative study, and the Groundswell team supporting the study and also implementing HHPA.

Dr Alec Miners –Co-investigator, economic evaluation lead, LSHTM

Alec Miners (AM) is a health economist, he will lead the cost-consequence analysis and supervise the costing data collection and the RF (C) and assist in propensity score matching (PSM).

Prof Andrew Hayward - Co-investigator, UCL

Andrew Hayward (AH) is a Professor in Epidemiology and Inclusion Health and Director of the UCL Institute Epidemiology and Healthcare. He will advise on all aspects of the quantitative studies.

Ms Serena Luchenski - Co-investigator, UCL

Ms Serena Luchenski (SL) is an HEE/NIHR Clinical Doctoral Research Fellow investigating cardiovascular disease in homeless populations. She will advise on the data linkage and analysis.

Dr Rob Aldridge - Co-investigator, UCL

Dr Rob Aldridge (RA) is a Wellcome Trust Intermediate Clinical Fellow and Public Health Specialist. He is currently leading an evaluation of hospital discharge procedures for homeless patients using data linkage via Hospital Episode Statistics. He will supervise the RF on data linkage via HES.

Dr Alistair Story - Co-investigator, UCL

Dr Alistair Story (AS) is founder and Clinical Lead of the pan-London Find & Treat Service based out of University College London Hospitals. He will advise on all aspects of the study and brings extensive expertise in working with populations experiencing homelessness.

Collaborators

Martin Burrows and Kate Bowgett of Groundswell will facilitate contact with study participants, day centres and other organisations working with homeless populations, and assist supervision of the work of the Peer advocate researcher. The Clinical Commissioning Groups (Central London and City & Hackney) will facilitate collaboration with specialist GP practices working with homeless populations (Dr Hickey, Great Chapel Street, the Greenhouse).

Co-researchers

One peer will be trained as qualitative interviewer to work with AG and PJM in component (A), interviewing participants, participating in regular meetings to discuss emerging findings and future data collection, to further develop their interviewing skills, and to contribute to analysis, write up and dissemination, under AG's guidance. A team of four co-researchers will be recruited and trained in the cohort study protocol, to recruit study participants, conduct data collection and participate in meetings where initial findings are presented and discussed.

Advisory group

An Advisory Group will include researchers, people with experience of homelessness, peer advocates and service providers, including: Rob Edgar, Alex Marshall and Louisa McDonald (Groundswell) Dr Caroline Shulman (KHP Pathway), Dr Briony Hudson (UCL Pathway), Debra Hertzberg (Homelesslink), Dawn Clarke (Tower Hamlets hostel forum), Jonathan Qureshi (GLA), Maya Walker (GLA), Thomas Clark (City and Hackney CCG), Dr Ben Atkins (Manchester based dentist) and Dr Michelle Cornes, Prof Judy Green (KCL) and Prof Richard Grieve (LSHTM). Members of this advisory board have already agreed to be involved, and have provided extensive input to the study development.

Approach and methods (project wide)

Qualitative research methods (interviews and observation) will also be used to understand how peer advocacy works and on what health and social outcomes (Component A). We will compare how engagement with peer advocates affects people who are homeless's use of health services and their health through a cohort study of 600 people who are currently homeless, some who work with peer advocates and some who do not and linking individuals to routinely recorded electronic health records (Component B). We will look at how much the intervention costs, and is cost saving, compared to no intervention in relation to increasing planned use of health services and decreasing use of emergency services and hospital care (Component C).

The research uses participatory research methods within an interdisciplinary research project, an approach increasingly used within social science and epidemiological research with excluded populations.[5] We will employ people with experience of homelessness as peer researchers, as well as inviting others to sit on the advisory group. They will be involved in developing study instruments, collecting, analysing and disseminating data in components (A) and (B), and sitting on the study advisory group to provide guidance and steering on all components, including the economic evaluation and informing integrated analyses.

The research team has extensive multi-disciplinary experience of research with homeless and excluded populations. We will involve peers and people who are homeless in the study both as researchers and on the advisory group. The study will be overseen by an advisory group consisting of people with experience of homelessness, agencies providing specialist services for homeless populations, policy makers and researchers. We will encourage applications from appropriately qualified individuals with experience of homelessness when recruiting to new staff posts. Workshops throughout the study, for participants and for the wider community of people experiencing homelessness, will provide additional opportunities to engage the community in the study's findings, and consult with them over future directions for the analysis.

Findings will be disseminated at workshops for: 1) community groups for people currently or previously homeless; 2) policy makers and service providers; and 3) agencies employing peer advocates to integrate findings into existing interventions

Participatory research approach and public involvement/engagement

Using a participatory mixed-method evaluation design, academics, practitioners and people with experience of homelessness will work as partners to make decisions over how the research is designed, conducted and used (see Project Team).

In addition to working with community advisory group members, we will hire four co-researchers to contribute to the quantitative study and one to review the qualitative study design and contribute to the data collection, analysis and dissemination phases. Co-researchers will: have experience of homelessness themselves, or of working with organisations that support people who are homeless.

Co-researchers will provide advice and input in relation to study processes outlined in this protocol and associated documents (e.g. topic guide, questionnaire, participant information sheets).

Before data collection, we will provide co-researchers with a training course in relation to: recruitment methods; research ethics; the study protocol; the wider project; and specific ethical and safety considerations related to the project. Training will comprise interactive presentations, applied exercises and interview role-playing. After the training, co-researchers will each carry out a 'pilot' interview with another member of the research team and collaborator to practice the recruitment process, gaining informed consent and administering all aspects of the study protocol.

Throughout the project, we will support all interviewers through daily debriefings. All researchers will also have access to confidential counselling (see Researcher Safety and Well-being).

Component A: Qualitative study

Design

Within a participatory academic-community approach, component A of the study will focus on qualitative data collection and analysis. We have implemented a planning phase of data collection and analysis to inform the detail of strategies outlined below and to prioritise outcomes and inform propensity score matching (PSM) for component B.

The qualitative study will build on the preliminary work done to refine an initial theory of change and contextualise outcome related data from the cohort study, responding to analyses from components B and C. These same data will also be used to explore the fidelity, acceptability and reach of the intervention. Data collection will focus on semi-structured interviews with HHPA clients, peer advocates, people who are homeless who are not clients, and Groundswell staff and stakeholders. We will supplement these interviews with shadowing of peer advocate-HHPA client appointments. This study will also follow a cohort of peer advocates as they are recruited, trained and begin work in order to both explore the process of HHPA, but also understand in more depth the impacts of HHPA on peer advocates themselves.

Sampling and recruitment

In total we will interview up to 50 individual homeless participants (both HHPA clients and non-clients), up to 30 peer advocates and up to 30 stakeholders (including those involved in supporting and delivering health care for people who are homeless). We will selectively follow-up and re-interview some participants.

Our overall sample is set with the goal of reaching saturation (i.e. further data collection is no longer bringing insight to the theory of change) before reaching these limits. As such, the total numbers of respondents listed here may not be needed.

We will initially purposively recruit participants – peer advocates, HHPA clients, non-HHPA clients and stakeholders - via Groundswell, day centres and hostels to ensure a range of perspectives according to age, gender, ethnicity and health and contact with the intervention. Further sampling will be increasingly theoretical following the initially purposive exploration and respond to emerging analyses, and also extend to recruiting stakeholders from NHS primary and secondary care sites. Sampling will then respond to the experiences of sub-groups (e.g. substance users) identified as having particular outcomes (e.g. improved mental health) and experiences of HHPA (e.g. those who have worked consistently with one peer advocate compared to those that have worked work with several).

Inclusion and exclusion criteria

We will include people who are homeless who both have and have not engaged with peer advocacy (we will draw on the Department of Health's definition of homelessness comprising: people sleeping rough, people sleeping in a hostel, and people in insecure or short-term accommodation, such as in a squat or on a friend's floor, who cycle into rough sleeping and the hostel system). All participants will be aged over 25. We will exclude those who, at the time of data collection are judged by the research team or other professional at the hostel or day centre, not able to give informed consent to participate (i.e through being severely intoxicated or acutely ill).

We will include Groundswell peer advocates (all aged over 18), both those in training, those currently working, and those who have left Groundswell after going on to other employment or opportunities.

We will include Groundswell staff, including those who are currently employed by Groundswell and involved in supporting or managing the HHPA programme. We will include stakeholders who are working in service delivery, support or policy in relation to homelessness in London.

Recruitment

Recruitment of homeless participants will be supported by Groundswell peer advocates and/or staff and volunteers from homelessness and health support agencies; these individuals and agencies will provide advice on individuals that meet sampling criteria. We will also recruit homeless participants who are not engaged in peer advocacy within street settings, as well as hostels and day centres; again supported by peer advocates and/or staff or volunteers from homelessness and health support agencies.

Recruitment of peer advocates will be supported by Groundswell staff, and take place within Groundswell offices.

Recruitment of groundswell staff and stakeholders will be linked to email or telephone introduction by Groundswell staff or peer advocates, or directly by the research team.

Data collection

AG, PJM and a co-researcher will spend time within Groundswell's offices (whilst preparing for data collection, and analysing data) to build rapport and understanding of the context within which peers and staff work.[6] This would not include recording information as data, but would allow for making notes to shape ongoing data collection through the methods outlined below. Our methods will be:

<u>1. in-depth interviews with people currently homeless</u> focused on those who are, or have recently been, engaged with HHPA, including a sub-sample of those who have never engaged. Interviews will focus on understanding the experience of HHPA, and in particular the health and social outcomes, and contexts for these. Interviews will explore the configurations elaborated in the theory of change as well as acceptability, fidelity and reach of HHPA through asking respondents about: the process and experience of HHPA for individual clients (including acceptability); how this process of HHPA is reported as linking to specific health and social outcomes; how the immediate and life-course social contexts of homelessness relate to the process and outcomes of HHPA; and how these specific experiences of HHPA are situated within broader trajectories of homelessness, health and social exclusion. The sub-sample of interviews with people who are homeless who have not engaged with HHPA will explore barriers to accessing HHPA, reasons for disengagement, and any possible network and diffusion effects of HHPA. We will target in-depth insight but respond to the external contingencies of the interview (principally the time available from interviewees); we expect interviews to vary in length from 20 minutes to an hour. We include topic guides as appendices 1.1 and 1.2 that set out the principal domains of enquiry. The specific questions asked in interviews will depend on the rapport built in interviews, and also what is of interest and importance to interviewees (as per our participatory approach and exploratory approach to identifying outcomes and impact); we will then also integrate additional questions and prompts within this topic guide framework to allow ongoing exploration of emerging themes and findings. Interviews will be conducted in hostels and day centres,

in street settings with appropriate privacy (e.g. public parks), or offices of organisational partners; the location will be determined by the interviewee. Where needed, a lead interviewer will work with an interpreter or peer advocate to conduct interviews, depending on the preference of the interviewee (e.g. a client may like to have a peer join them in an interview). Interviews will be audio-recorded and then transcribed (and translated where necessary). Repeat interviews with selected respondents will be used to further explore particular experiences and theoretical developments.

2. In-depth interviews with peer advocates. We will interview peer advocates working for Groundswell delivering HHPA, and also people who have previously worked as peer advocates (allowing for 20-30 respondents). Interviews will follow the areas of focus as above, by seeking to understand the mechanisms, contexts and outcomes for HHPA, as well as the role of training and support, whilst also exploring an additional question of what impact working on HHPA has for peers themselves. Interviews will explore the areas of interest, as above, whilst remaining flexible to what participants raise and want to discuss. We include a topic guide as appendix 1.3 that sets out the principal domains of enquiry. The specific questions asked in interviews will depend on the rapport built in interviews, and also what is of interest and importance to interviewees; we will also integrate additional questions and prompts within this topic guide framework to allow ongoing exploration of emerging themes and findings. Interviews will be done in locations convenient for peer advocates, which could include the Groundswell offices, hostels or day centres where they are working, or in other public places or organisational offices as convenient. Interviews will be audio-recorded and then transcribed. If peers prefer – whether for comfort, interest or familiarity – we will conduct group interviews, using the same process as above. Repeat interviews with selected respondents will be used to further explore particular experiences and theoretical developments.

3. In-depth interviews with Groundswell staff and stakeholders – We will interview Groundswell staff and stakeholders, including doctors, nurses, other health care staff, hostel staff and commissioners to explore insights in to how HHPA works and has impact, whilst also probing for comparison across different experiences of the HHPA programme and for the influence of the health system context. Interviews will again be semi-structured, exploring these areas of interest but also allowing for participants to raise issues. See appendix 1.4 for interview guides that sets out the principal domains of enquiry. The specific questions asked in interviews will depend on the rapport built in interviews, and also what is of interest and importance to interviewees; we will also integrate additional questions and prompts within this topic guide framework to allow ongoing exploration of emerging themes and findings. Interviews will be done in locations convenient for interviewees, whether offices or public places. Repeat interviews with selected respondents will be used to further explore particular experiences and theoretical developments.

4. HHPA Shadowing - Allied with in-depth interviews with peers and HHPA clients we will also shadow peers and clients as they implement their work and attend appointments together.[7] The purpose of these data will be to understand how HHPA is implemented and operates beyond the accounts offered in interviews). A researcher would accompany a peer as they meet, and attend an appointment, with an HHPA client, following the process from start to finish. The researcher would also join the peer and client within appointments with care professionals. This would include the researcher observing the peer and client and their work together, as well as joining conversations where appropriate, with the

researcher making brief observation notes to be written up later or audio-recordings of conversations, as appropriate.[8] This in-depth research would only be conducted with peers and clients that had already been interviewed (as above) and so where there is already some level of trust and rapport.

5. Interviews, group interviews and observation with new peer advocates - we will conduct repeat interviews with a group of peer advocates newly recruited, and track this 'cohort' as they are trained, mentored and start their work. Topic guides are included as appendix 1.5 detailing how individual interviews would progressively explore peers experiences of recruitment, then training, and then as they begin work. Such interviews would often be short, and follow-on from other activity (e.g. peers attending a training session or accompanying a client in their work). These interviews will be linked to observation of their training and other core meetings for peers by a member of the research team to understand the context and process of HHPA training and work. The researchers would observe and make reflective notes – not recording information as data – to then explore in consequent interviews. We would also allow for short group interviews – for example, after a group training session – where peer advocates could reflect together on some aspect of their training or work. These data from interviews and observation would also be linked and triangulated with HHPA shadowing (as above) and with questions explored in staff and stakeholder interviews.

Data analysis

Analysis will principally follow a grounded and abductive strategy [9,10] to develop theory of HHPA, through testing existing theory (principally the HHPA theory of change, see figure 1, but also from existing research literature) whilst exploring for inductive insight. Specific analytical steps will follow a grounded theory approach[10], based on coding data and then exploring links across this coded data. Coding will be driven by the existing theory of change (see figure 1), broader social science insight and the lived experience of homelessness (see role for peer researcher in analysis). Supportive analytical strategies will include: 1) memo writing to explore concepts and theoretical links, 2) comparison between individuals and sub-groups through developing framework matrices linked to close attention to deviant cases, and 3) triangulation of data collected from different methods (interviews vs observation, interviews from different groups of respondents) and different members of the research team (ie peer researcher vs non-peer researcher).

The analytical process will focus on a team approach to coding managed through Nvivo software. AG and PJM will lead the coding, with input from the peer co-researcher, with regular team meetings to discuss and achieve consensus around coding and interpretation. Periodic 'respondent validation' with Groundswell staff (MB, KB) will be used to further explore the analysis.

Qualitative data collection and analysis will be iterative, with analysis proceeding from the beginning of the study to allow emerging theoretical conclusions to be integrated in to ongoing data collection and so be fully developed.

Results from the cohort study (B) will also be used to drive on-going data collection and analysis of the qualitative data. Intermediate outputs from the analysis will include memos on key configurations of context-mechanisms-outcomes, matrices summarising comparison between respondents and sub-groups of them and narrative summaries of coding data relating to specific questions on acceptability, fidelity and reach of the intervention (OBJ 7). These outputs will be the focus for reflection across the investigating team and inform ongoing refinement.

Component B: Cohort with primary data

Design

The cohort study is comprised of people who are currently homeless in London, who are classified according to whether they are currently HHPA clients or not, and who are followed up for 12 months using data linked to the Hospital Episode Statistics and CHAIN database.

Eligibility

To be eligible for the study, participants will**:**

- Confirm their homeless status, per the Department of Health definition comprising: people sleeping rough, people sleeping in a hostel, and people in insecure or short-term accommodation, such as in a squat or on a friend's floor, who cycle into rough sleeping and the hostel system
- aged 25 years or older
- have an ongoing medical issue
- affirm some difficulty with managing their health care
- be willing to complete a 20-minute interview
- be capable of providing informed consent for the 20-minute interview, and for allowing access to HES data.

Recruitment

HHPA clients: We will prospectively recruit 150 newly-enrolled HHPA clients as intervention participants. All clients will have joined HHPA from a referral route (e.g. hostel, supported accommodation, specialist day centre, specialist GP clinics including Dr Hickeys, the Greenhouse and Great Chapel Street) originating from an eligible borough. Clients who join HHPA via a specialist GP referral will not be eligible. The HHPA coordinator at Groundswell will notify a co-researcher about each potentially eligible client, and the co-researcher will contact the client for recruitment.

Comparison group: For comparison participants, co-researchers will recruit 450 non-clients from hostels, supported accommodation and specialist day centres where Groundswell is not active, from eligible boroughs. We will select these recruitment venues to approximately match the characteristics of venues where HHPA clients have historically been enrolled. Co-researchers will coordinate with staff at these venues to identify potentially eligible participants.

Eligible boroughs are in London, where Groundswell has a presence in at least 1 homelessness service location (e.g. hostels, accommodations and day centres), but not a presence in nearly all locations. At present, these boroughs are Camden, Hammersmith & Fulham, Islington, Kensington & Chelsea, Lambeth, Southwark, Tower Hamlets, and Westminster.

Data collection

Prior to beginning data collection, we will pilot the questionnaire and assess feasibility of recruitment approaches (see Participatory research approach and public involvement/engagement). Interviews will take place in a private room in a collaborating community organisation setting, at LSHTM, in a quiet café/outdoor space, or the participant's workplace or home if (s)he wishes. The selected space will be subject to risk assessment and concerns for confidentiality (see Confidentiality and anonymity and Researcher Safety and Well-Being).

Co-researchers will administer a structured questionnaire (Appendix 4) on hand-held tablets to collect self-reported data around the following three domains:

Descriptive characteristics for group comparison

- Age
- Education
- Ethnicity
- Homeless category
- Access of services provided by Groundswell or other social service providers
- Number of contacts with a Groundswell Homeless Health Peer Advocate
- Country / county / borough of birth & years in London
- Drug and alcohol use
- Health status (e.g. diagnoses / treatments /prescriptions) at time of joining HHPA (for intervention) or at present (for controls)

Descriptive characteristics for matching to Hospital Episodes Statistics and CHAIN:

- Full name
- Aliases
- Sex
- Address, if available
- Date of birth
- NHS number or numbers, if available

Secondary measures

- Self-efficacy
- Social capital
- CHAOS score inputs
- Self-care
- Stigma

Data linkage for follow-up outcomes

As part of the informed consent process, participants will be asked to consent to collect identifying information for linkage with electronic health care records. The viability of this approach is informed by a workshop with 13 people with experience of homelessness who were asked whether they would be happy for health, criminal records and hostel information to be linked together for research purposes: 85% (11/13) said they would be happy for these records to be linked.[11] Further, our previous research has shown that 65% of NHS numbers can be identified through PDS using full names and date of birth to match (personal communication, Alistair Story).

The participants' interview data will be provided to the Personal Demographics Service at NHS Digital to undertake a 'list clean', i.e. to identify and add NHS numbers as needed. NHS Digital will complete a deterministic linkage process to extract anonymised Hospital Episodes Statistics (HES) records. The HES records of interest concern our outcomes: 1) outpatient appointments scheduled and appointments attended, 2) A&E attendance, and 3) hospital admission. Records will be requested for one year prior to initial engagement with Groundswell (for HHPA clients) or engagement with the study (for comparison participants) and one year after engagement.

Participants will also be asked to consent to using identifying information for linkage with the CHAIN dataset. The CHAIN dataset is a multi-agency database recording information about people sleeping rough and the wider street population in London. The system, which is commissioned and funded by the Mayor of London and managed by St Mungo's, represents the UK's most detailed and comprehensive source of information about rough sleeping.

Information is added to the system by services who work directly with rough sleepers and the street population in London. This includes: outreach teams; rough sleeper assessment and reconnection services; Accommodation projects, including hostels, second-stage accommodation and supported housing projects; Day centres; Other specialist services. The CHAIN dataset concerns our secondary outcomes: 1) peoples support needs including mental health problems or substance use; 2) current accommodation status; 3) prison; 4) seeking employment. Records will be requested for one year prior to initial engagement with Groundswell (for HHPA clients) or engagement with the study (for comparison participants) and one year after engagement.

NHS Digital and CHAIN will securely upload a de-identified copy of the linked dataset to the University College London Institute of Health Informatics' Data Safe Haven—a robust infrastructure certified for processing and analysing identifiable data according to international and national information security standards (ISO/IEC 27001:2013 and NHS Information Governance Toolkit).

Prior to analysis, we will review the list of non-client participants and compare against a listing of HHPA clients enrolled since the study start date. Any non-client participant who subsequently enrolled in HHPA will remain in the dataset as a non-client, and have their HES data censored on their HHPA enrolment date.

Outcomes

The primary outcome measure is attendance at planned outpatient appointments over a 12-month period where the denominator is defined as booked appointments and the numerator is those who attended. This will be measured through linking participants to Hospital Episode Statistics (HES) via NHS Digital.

Secondary outcomes include: 1) use of accident and emergency services (without in patient admission); and 2) in-patient hospital admissions also measured via HES over a 12-month period. We will also draw on self-reported data collected through a structured questionnaire and via linkage to the CHAIN dataset to measure access to health services as well as other health and social outcomes. These include: 3) Indicators to measure access to prevention, testing and treatment services for HIV, Hepatitis C and tuberculosis in the past 3 months, registration with a GP, use of dentist/podiatrist, and accessibility/use of other services as needed, substance use/harm reduction, mental health, housing, welfare, immigration advice and legal support. We will include homeless specific and mainstream services. 4) Experience of prison, contact with police or any aspects of the criminal justice services.

Data analysis

Working with the dataset – unlinked from personal identifying information we will undertake the analysis at LSHTM.

Step 1: First, we will describe the pattern of missing outcome data, by comparing baseline characteristics (e.g. demographic, health-related, homelessness-related) and retrospective HES characteristics (e.g. outpatient attendance, A&E visits, inpatient admissions) of participants who were successfully linked to HES data vs participants who were unlinked, using Chi squared tests for categorical variables and t-tests for continuous variables.

Step 2: Second, we will describe the comparison groups and identify areas of imbalance at time of enrolment by comparing the baseline characteristics and retrospective HES characteristics of HHPA clients vs non-clients, and calculating standardized effect sizes for continuous variables and for dummy-coded categorical variables.

Step 3: Third, we will conduct analysis of primary and secondary outcomes using regression models to estimates the relative risk of the outcome occurrence over 12 months for HHPA clients vs non-clients, and the corresponding 95% confidence intervals. Appropriate statistical models will be selected (passion regression or logistic regression) depending on how the primary outcomes are coded and structured. The regression models will account for imbalance in baseline characteristics using propensity scores and will account for missing outcome data using multiple imputation, described below.

The three regression models will account for unlinked (missing) HES outcome data using multiple imputation methods, with missing data models informed by the findings in step 1 above.

The three regression models will account for baseline imbalances (potential confounders) using propensity scores. Age, sex, ethnicity and educational attainment will be included a priori in the propensity score models, along with any variables with evidence of imbalance in step 2 above. After creating a propensity score model and calculating treatment probabilities, step 2 will be repeated using inverse probability of treatment weights (IPTW) and rechecked for imbalance. The propensity score model will be revised (e.g. by adding quadratic and interaction terms) until satisfactory balance has been achieved.

Component C: Economic evaluation

Design

The aim is to assess the costs of the HHPA intervention compared to no provision over a one-year time horizon. The costs will be estimated by assigning appropriate unit costs (eg. NHS Reference costs) to the resource use estimates generated by the propensity score matching and linked HES / CHAIN data from component B above.

The health consequences / benefits of the intervention will not be included in the evaluation since they are not being measured post enrolment and cannot be estimated retrospectively. NHS costs associated with hospital visits will be included in the analysis, in addition to the costs of the HHPA intervention itself.

The intervention will be costed by interviewing Groundswell staff and reviewing of project documents and programme data. The costs will include those that are fixed (training, overheads) and variable (salaries to cover time spent peer training and with clients). The costs associated with non-NHS resource use, such as contacts with drug/alcohol services derived from the CHAIN days analysis, will also be costed using information available from the Personal Social Services Research Unit. The results will be presented as total and incremental costs associated with each alternative.

Analysis

We will assess the cost-effectiveness of the HHPA intervention compared to no provision drawing on the propensity score matched cohort study effect estimates from component B, over a one-year time horizon. The results will be presented as the costs and outcomes of the intervention and control separately rather than aggregate them into a single statistic (i.e. incremental cost per Quality Adjusted Life Year [QALYs]). We will therefore perform a cost-consequence analysis, which follows NICE Public Health Programme Guidance (Obj 4&5), and is an appropriate form of evaluation to use when it is thought that QALYs are unlikely to capture all of intervention benefits of interest.[12]

Component D: Process Evaluation

Design

We will collate programmatic data collected by Groundswell including: i) nature and frequency of contact with peer advocate; ii) location of recruitment; iii) demographic characteristics of clients and peer advocates; iv) type of health condition (using ICD-10 chapter headings); v) location of health appointment, whether the appointments took place and the reason for cancelation. These data will enable us to define our exposure to the intervention as well as inform our sampling strategy for B. Data will be collated throughout the duration of the project and analysed descriptively to assess i) the fidelity (the extent to which the intervention is delivering what it set out to); (ii) dose (the intensity in which the intervention is delivered), (iii) and reach (what proportion of the population are in contact with the intervention) in line with published recommendations on utilising routine data for process evaluations.[13]

Project wide ethics and research governance

Informed consent

All potential participants will be provided with complete information about the study, in order to allow them to fully consent before taking part. We have designed information sheets and consent forms (see attached) to be understandable to people aged 18 and above. We have piloted these documents with community and other representatives of the study advisory group(s) for acceptability and comprehensibility. Information leaflets and consent forms will also be translated into the main languages spoken by clients of Groundswell who are currently homeless (e.g. Polish, Romanian). We enclose as appendices information sheets and consent forms adapted for each study component.

Potential participants will be given as much time as they need to decide whether or not to take part in the study. We will encourage participants to discuss any concerns they have regarding participation with the interviewer, or member of staff from a partner organisation that the person is working with, or someone else they trust. We will be available to answer any questions that potential participants have about the study, in person or by telephone.

We will ask all participants to consider whether or not their participation in the study could cause them any personal harm (see Participant Information Sheet).

We will stress to potential participants, and to recruiting staff: the confidentiality and anonymous nature of the study; that participants are fully entitled to refuse participation, and to withdraw from the study at any point without giving a reason; and that this will have no implications for their care, treatment or support from recruiting services. It will also be stressed that their participation in this study does not form a part of their health care and/or support provided by these organisations. If, having read and understood the information sheet and had all their questions addressed, participants feel willing and ready to participate, we will offer the opportunity to take part on the same day, or to schedule the activity for a later date that is convenient to them.

For participants who have specific physical or emotional health needs, or who use drugs or alcohol, it is important to consider the potential effects on their ability to provide informed consent. The researcher will be mindful of, and assess, each participant's mental and physical state before beginning an interview. If the participant appears to be in pain or distress, significantly intoxicated, experiencing severe drug withdrawals or intrusive treatment side effects, it will be tactfully arranged with the participant for the interview to be conducted at another time.

Participants will be asked to sign and date a written consent form for both component A and B (see attached).

In the case that a participant is unable to read the participant information sheet or consent form, a third-party witness other than the interviewer (e.g. a staff member/volunteer from a collaborating organisation not involved in the research) will provide a verbal summary of the information sheet and outline of the research process before written consent is obtained. If the participant is unable to provide a written signature, (s)he will be asked to mark the consent form with an 'X' in the presence of the third-party witness who will also sign the consent form ('witness' name and signature' section).

During the informed consent process, the interviewer will make participants aware that we are obliged to report any harm to a child (e.g. physical or sexual abuse), or significant and immediate danger to participants themselves (e.g. suicidal feelings) or others, that we become aware of during interviews. We will stress that we would only do so after informing the participant, and ideally with their assent. In this case, we will seek guidance with Groundswell to ensure we fulfil our duty of care while minimising harm to participants.

Confidentiality and anonymity

Confidentiality and anonymity are key concerns for people who are homeless. Participants will be able to use a pseudonym when consenting and all data will be treated as confidential, except if a participant discloses significant and immediate danger to themselves or harm to a minor, in which case we will follow Groundswell's safeguarding procedures. We will make participants aware of this before we seek their informed consent. Ensuring informed consent from excluded groups, such as people who are homeless, poses specific considerations. We will develop all study information and instruments with peer researchers and the advisory group. Informed consent will be gained cautiously, and allowing extensive time for discussion and explanation, including the role of co-researchers to support this. Interviews will take place in a private space convenient to participants (e.g. Groundswell, hostels, day centres, cafes). In interviews we will take a sensitive approach, and provide information/ referrals to additional support as needed/desired. While we cannot refer participants recruited to the comparison group to peer advocates since they will be recruited in settings currently not visited by Groundswell, we will draw up a referral package with Groundswell summarising a list of suitable services. Consenting to data linkage will be carefully explained, we will destroy all identifying information of participants at the end of the project. Within interviews for Component A we will ask permission to follow-up for a repeat interview. Contact details (whether phone, email or contact address or person) will be recorded on a separate database. Consent forms will be stored securely, and contact details only used when appropriate.

Compensation and expenses

Participants who are homeless will be provided with a cash compensation worth £10 for participating in an interview. This is not to be seen as an inducement to participation but rather as a recompense for the time and effort participants have contributed. This value (£10) is in line with previous studies at LSHTM, KCL and UCL with marginalized populations in London. Peer advocates and Groundswell staff and stakeholders will not be given cash or compensation, on the basis that this will be considered as part of their working time. For all participants we will though refund any travel costs incurred as well as provide refreshments for an interview.

Potential risks and their management

Risk 1 - Participants who are particularly vulnerable or unable to give informed consent or in a dependent position:

To address this risk the research team will work closely with Groundswell and partners from day centres and hostels who have safeguarding policies to monitor vulnerability and assess clients (recording support and health needs, disabilities and any other specialist requirements for working with people). We will follow this process and linked recommendations on whether clients should be approached to participate in the study. The informed consent process details the focus of the interviews. Potential participants will also have it explained to them that the study is voluntary, can be stopped at any time, that they do not have to answer any questions they do not want to, and can withdraw their data at any time. All interviewers are also experienced social researchers, including working with people facing severe exclusion; as well as the safeguards above, they will also decline an interview, or stop an interview early, if they consider a participant is vulnerable, in danger of becoming distressed, or is distressed (and using a precautionary principle to enforce this – ie if in doubt, we will decline or curtail the interview).

Risk 2 Research with people who are homeless and vulnerable generating distress or psychological harm:
Research with vulnerable adults raises a risk that discussing previous experience can trigger difficult memories or relapse. As above, to address this risk Groundswell has safeguarding policies to monitor vulnerability and assess clients. We will follow this process and linked recommendations on whether clients should be approached to participate in the study. The informed consent process also details the focus of the interviews. Potential participants will also have it explained to them that the study is voluntary, can be stopped at any time and they do not have to answer any questions they do not want to. All researchers are experienced in working with vulnerable adults, and will avoid questions or end an interview if participant distress seems likely. We will also ensure that all participants have available to them information on how they can be linked to support from Groundswell partner organisations. Should a participant be in distress we would: 1) provide a list of appropriate services and facilitate contact with them if desired, and 2) seek the participant’s consent to then make an immediate link to a member of staff from Groundswell or from the day centre or hostel in which the interview is being done.

Risk 3 – Research with peer advocates generating distress or psychological harm:
Peer advocates themselves have experience of homelessness and legal difficulties, and involvement in an interview also potentially risks triggering distress based on past experience. Groundswell has extensive experience of working with Peer advocates and the process of training and support for the advocates includes relevant training on this issue, and detailed debriefs linked to supervision structures. Peer advocates also participate in clinical supervision sessions to engage in reflective practice with a trained therapist. Within these supervisory structures, Groundswell staff will be able to identify potentially suitable participants for interviews. Potential participants will also have it explained to them that the study is voluntary, can be stopped at any time and they do not have to answer any questions they do not want to. As above, those conducting the interviews are experienced social researchers and will decline or curtail an interview if necessary. Should a participant be in distress we would: 1) provide a list of appropriate services and facilitate contact with them if desired, and 2) seek the participants consent to then make an immediate link to a member of staff from Groundswell, or another appropriate professional who they are already in contact with.

Risk 4 – Clients and peer advocates experiencing pressure to participate based on relationships with the research team:
Homeless clients, peer advocates and stakeholders will have past and continuing relationships with Groundswell staff in particular, but also potentially members of the research team. We will mitigate this through a series of steps: 1) emphasizing throughout conversations about the study that participation is voluntary, and is not linked to their ongoing engagement with Groundswell or the research, 2) allowing for separation between initial conversations on the study and actual data collection, if necessary. These steps come within the broader framework of the study being secondary to Groundswell's primary goal of maintaining long-term and empowering relationships with clients and peer advocates; this ethos, and the working relationships between Groundswell and peers and

clients that emerge from it, will limit the potential for clients and peers to feel pressure. In addition, Groundswell's experience of research with this population shows that people are comfortable and able to decline study participation.

Risk 5 – There is a risk that the research topic might lead to disclosures from the participant concerning their involvement in illegal activities or other activities that represent a threat to themselves or others: All participants will disclose personal data (at least their names and other identifying information) and potentially information on criminalised activities (e.g. injecting drug use, sex work). All data will be treated as confidential, except when an issue of serious potential harm to the participant or a child is disclosed (see Confidentiality and anonymity). In order to maintain confidentiality we will ensure rigorous data management and take precautions of storing data securely. (see Data storage and protection)

We will draw up a list of services to which to refer participants to address health and welfare needs that are raised during the course of the interview. This will be done in collaboration with Groundswell and our Advisory Group. During the informed consent process, the interviewer will make participants aware that we are obliged to report 1) any harm to a child (e.g. abuse), or 2) significant and immediate danger to participants themselves or others (e.g. suicidal feelings), that we become aware of during interviews. All other information – including reports of illegal behavior such as drug use or soliciting for sex work – will be confidential. If participants report behaviours that may increase their risk of future harm – e.g. illegal behaviours – then at the end of the interview we would ensure they had access to the list of services (as above) and then also offer to assist in linking the participant to Groundswell staff or peer advocates for future support. If participants report 1) harm to a child, 2) or significant and immediate danger to themselves, then we would stop the interview. We would inform the participant of our need to contact appropriate authorities, and ideally seek their consent to do this. The interviewer would then consult with the Principal Investigator, Groundswell, other investigators and senior researchers (particularly those involved in the study advisory group) about the appropriate course of action. In the case of an immediate and acute emergency we would call the police and/or emergency services. If less immediate we would contact appropriate safeguarding authorities; Groundswell – through their various roles in service delivery – have extensive experience and networks to support the health and welfare of people who are homeless and we would build on those to ensure appropriate links or reports are made to relevant authorities.

Risk 6 – Participants change their mind about agreeing to have their hospital episode statistic data followed-up:

There is a risk that participants having consented to have their records linked to hospital episode statistics and CHAIN and having those records accessed, change their mind and want to withdraw from the project. Participants can change their mind about taking part at any time, without saying why and this will be explained in the information sheet (Appendices 2, 3, 5, 6). Participants will be given the contact details of the research team so they can ask for records to be removed at any time. For participants recruited via Groundswell, this can be done via Groundswell staff (Martin, Kate, Peer researcher). After the baseline survey is finished, participants we will invited to an event to present the early findings of the study (see Reporting, Outputs and Ongoing Dissemination). This event will provide an opportunity for participants to let the research team know that they want to remove their records from the research.

Potential benefits

This study will not directly affect the care and treatment that participants receive. However, we will use the findings to inform advocacy for services' policies and practices that protect the health and rights of people who are homeless. We will seek to maximise the community impact of the study by feeding findings into advocacy efforts through our participatory research approach, and through our engagement with people who are homeless, local communities, activists, practitioners and policy makers in the fields of health and social care (see Reporting, Outputs and Ongoing Dissemination).

Data storage and protection

At the start of the project we will develop as a team a detailed data management protocol, linked to online training for any staff not familiar with GDPR regulations, to ensure standard good practice across the team.

Component A

All data and analysis will be stored on password-protected computers, using encryption software where possible, including encrypted audio-recording devices. After transcription audio files will be stored for the duration of the project (to allow for checking of any information) and then deleted. We will pseudonymise the transcribed data to prevent direct and indirect identification. We will maintain a password protected linking file to store participants names and contact information to enable ongoing data collection and repeat interviews. All consent forms will be stored in a locked cupboard. All data will be securely stored in accordance with GDPR regulations and King's data archiving policy. Transcripts will be kept in a folder on a central server at KCL.

Component B

All interview data will be collected via the Open Data Kit software (ODK collect) on handheld password-protected tablet devices. Once an interview is completed the participant 'finalises' the questionnaire. Once the questionnaire is finalised, ODK Connect applies an asymmetric public key encryption using 256-bit encryption, which is irreversible and ensures that the finalized questionnaire data are not readable and are not tampered with. The encrypted form is sent to a central server hosted at LSHTM. From the server, the encrypted form will be downloaded to a secure server at LSTHM by the data manager (LP or SR). The data can only be decrypted by using the ODK briefcase by the data manager. Data will be sent to the secure server only when the device is within LSHTM wifi range and so the information will be captured and stored on the device until that time.

The datasets are stored within the designated project folder on the secure server. Access to each particular project folder is restricted to the members of LSHTM who have been nominated by the PI.

The full datasets will be transferred through UCL's secure data transfer portal (link) to UCL's Data Safe Haven and then to NHS Digital and CHAIN. NHS Digital will use the Personal Demographic Service (PDS). NHS Digital will undertake all data linkage to Hospital Episode Statistics (HES) data using patient identifiers obtained from the recruitment sites in combination with PDS tracing and securely upload a copy of the data to the University College London Institute of Health Informatics' Data Safe Haven—a robust infrastructure certified for processing and analysing identifiable data according to international and national information security standards (ISO/IEC 27001:2013 and NHS Information Governance Toolkit). CHAIN will undertake all data linked to their dataset using personal identifiers and this dataset will be transferred to the Data Safe Haven.

The data analysis will occur through the Safe Haven portal by a statistician who has completed NHS Information Governance training; it will not be possible to make local copies of the dataset. Data will then be delinked from personal information (full name, date of birth, NHS number) which will be stored separately. Data will be transferred back to LSHTM and stored on the secured server for analysis. The process of data collection, linkage and storage is presented in Figure 2 below.

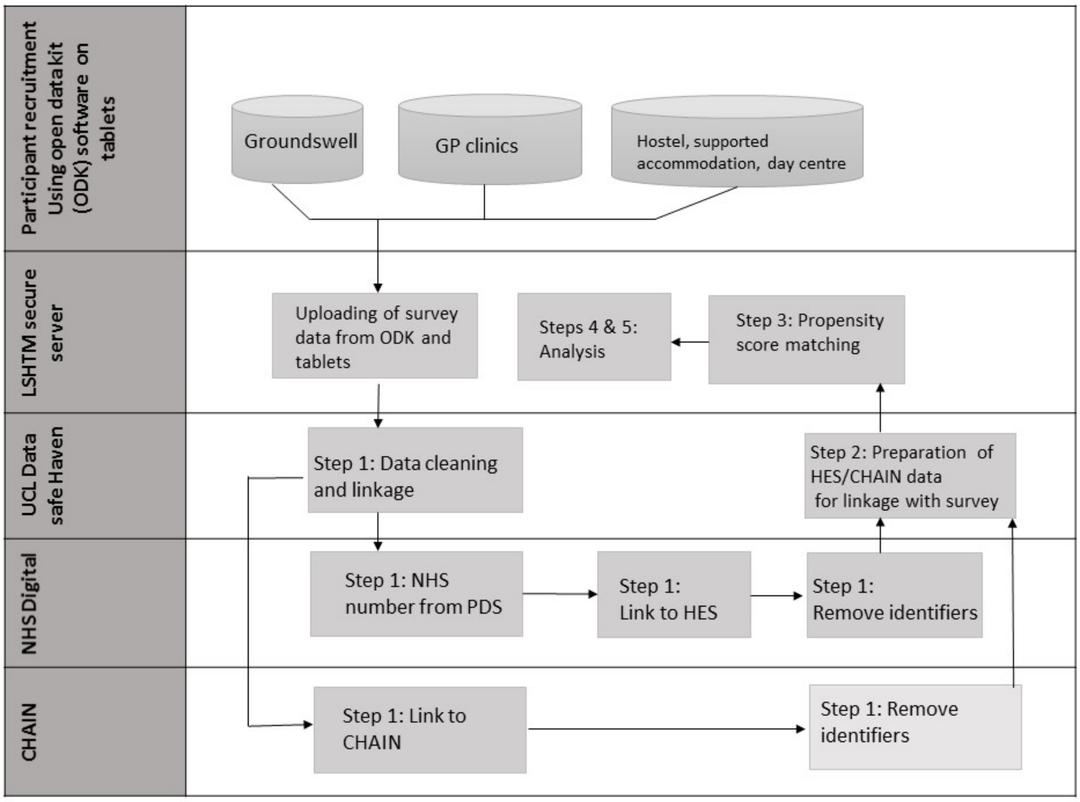

Figure 2: The flow of data between field work and institutions

Researcher Safety and Well-Being

For fieldwork conducted outside of collaborators' premises and/or in the absence of staff/representatives from these organizations, interviewers will work in pairs and we will operate an 'on-call' system, whereby another member of the research team is aware of the researchers' whereabouts and expected finish time and has a contact phone number for them. Researchers will ensure that their mobile phones are charged and will inform the on-call researcher if they anticipate poor reception or low battery. The researchers will contact the on-call researcher on arrival at the fieldwork site and again at the end of fieldwork. If the on-call researcher doesn't hear from the researchers within 2.5-3 hours of the start time, (s)he will call/text them at 30-minute intervals until (s)he is able to make contact. Each researcher will be given an emergency alarm connected to a security service to use if necessary.

In addition to weekly debriefs, lead researchers (Lucy and Andy) will ensure that all co-researchers have adequate and ongoing opportunities to talk through any difficulties or concerns they have experienced/felt in relation to the field work. They will discuss these issues with Groundswell and the wider project team, as appropriate, to ensure that the necessary support is in place. Co-researchers will be provided with information on how to access free and confidential counselling services through

LSHTM (http://www.lshtm.ac.uk/humanresources/counselling/), and/or by referral to appropriate NHS counselling services if preferred.

Approvals

We will seek ethical approval of this study from the LSHTM Ethics Committee, and an NHS Research Ethics Committee, seeking site-specific approval for each collaborating clinic. All interviewers will apply for Research Passports from the R&D departments of the NHS trusts corresponding to collaborating clinics, to allow us to recruit and interview participants in/via collaborating clinical services.

Ethics in Progress

We will monitor and document any ethical concerns arising during the project, via individual debriefs immediately after interviews, written field notes (see 'Data Collection' and 'Analysis'), and ongoing, minuted discussion of these and other potential ethical issues, with the project PI and across the research team (during team meetings). Where necessary, we will discuss these concerns with our collaborators and participants, in accordance with the above outlined provisions to protect anonymity and confidentiality (see Confidentiality and anonymity). Lucy and Andy in discussion with other co-investigators where necessary, will ensure that any safety and/or ethical concerns are addressed promptly, and that appropriate action is taken when needed.

Reporting, Outputs and Ongoing Dissemination

Written outputs

We will develop at least four open access peer-reviewed publications in high-impact public health journals reporting on the cohort study, the qualitative study, the cost consequence analysis, and integrated analyses of quantitative and qualitative findings. Findings will be published in an end-of-project report. A project specific website through LSHTM or KCL, with associated social media strategy, would be a focus for gathering project information, reports and publications for reference and storage throughout and after the project.

Workshops

We will hold two workshops specifically for people experiencing homelessness at Month 18 and 34 to report on preliminary and end-of-project findings and to incorporate feedback and reflect on interpretation and implications for practice.

We will also hold two dissemination events at the end of the project: (1) with policy makers, service providers (clinical and social services) working with homeless people; and (2) with specialist services working with peer advocates (Find and Treat, Pathway, Groundswell and others seeking to develop such approaches) in order to integrate findings into practice.

Appendices

Component A

Appendix 1: Interview guides

1.1: In-depth interviews with people currently homeless accessing HHPA

1.2: In-depth interviews with people currently homeless not currently accessing HHPA

1.3: In-depth interviews with peer advocates

1.4: In-depth interviews with Groundswell staff and stakeholders

1.5: Interviews, group interviews and observation with new peer advocates

Appendix 2: Information sheets

2.1: In-depth interviews with people currently homeless

2.2: In-depth interviews with peer advocates

2.3: Group interviews with peer advocates

2.4: In-depth interviews with Groundswell staff and stakeholders

2.5: Shadowing with peer advocates and HHPA clients

2.6: Shadowing with providers

Appendix 3: Consent Forms

2.1: In-depth interviews

2.2: Group interviews

2.3: Shadowing with peer advocates and HHPA clients

2.4: Shadowing with providers

Components B and C

Appendix 4: Questionnaire

Appendix 5: Information sheet

Appendix 6: Consent Form

References

1. Dennis CL. Peer support within a health care context: a concept analysis. International journal of nursing studies. 2003 Mar;40(3):321-32
2. Barker SL, Maguire N. Experts by Experience: Peer Support and its Use with the Homeless. Community mental health journal. 2017 Jul;53(5):598-612
3. Barker SL, Maguire N. Experts by Experience: Peer Support and its Use with the Homeless. Community mental health journal. 2017 2017/07/01;53(5):598-612
4. Finlayson S, Boelman V, Young R, Kwan A. Saving lives, saving money. How homeless health peer advocacy reduces health inequalities. London: Young Foundation 2016.
5. Israel B, Eng E, Schulz A, Parker E. Methods for community based participatory research for health. Sons Wa, editor2013.
6. Green J, Thorogood N. Qualitative methods for health research London: Sage publications; 2014.
7. Cornes M. Effectiveness and Cost-effectiveness of 'Usual Care' versus 'Specialist Integrated Care': A Comparative Study of Hospital Discharge Arrangements for Homeless People in England. National Institute of Health Research.
8. Evans J, Jones P. The walking interview: Methodology, mobility and place. Applied Geography. 2011;31(2):849-58
9. Tavory I, Timmermans S. Abductive analysis, theorising qualitative research. Chicago: University of Chicago Press; 2014.
10. Green J, Thorogood N. Qualitative methods for health research, third edition. London: Sage publications 2014.
11. Aldridge RW, Story A, Hwang SW, Nordentoft M, Luchenski SA, Hartwell G, Tweed EJ, Lewer D, Vittal Katikireddi S, Hayward AC. Morbidity and mortality in homeless individuals, prisoners, sex workers, and individuals with substance use disorders in high-income countries: a systematic review and meta-analysis. Lancet. 2017 Nov 10
12. National Institute for Health and Care Excellence. How NICE measures value for money in relation to public health interventions. London: National Institute for Health and Care Excellence, 2013.
13. Moore GF, Audrey S, Barker M, Bond L, Bonell C, Hardeman W, Moore L, O'Cathain A, Tinati T, Wight D, Baird J. Process evaluation of complex interventions: Medical Research Council guidance. BMJ : British Medical Journal. 2015;350