

Supported accommodation for people with mental health problems: the QuEST research programme with feasibility RCT

Helen Killaspy,^{1,2*} Stefan Priebe,^{3,4} Michael King,¹ Sandra Eldridge,⁵ Paul McCrone,⁶ Geoff Shepherd,⁷ Maurice Arbuthnott,⁸ Gerard Leavey,⁹ Sarah Curtis,¹⁰ Peter McPherson¹ and Sarah Dowling¹

¹Division of Psychiatry, University College London, London, UK

²Camden and Islington NHS Foundation Trust, St Pancras Hospital, London, UK

³Unit for Social and Community Psychiatry, Newham Centre for Mental Health, London, UK

⁴East London NHS Foundation Trust, London, UK

⁵Pragmatic Clinical Trials Unit, Barts and The London School of Medicine and Dentistry, Queen Mary University of London, London, UK

⁶King's Health Economics, Institute of Psychiatry, Psychology and Neuroscience, King's College London, London, UK

⁷Implementing Recovery Through Organisational Change (ImROC), c/o Learning and Development, Nottinghamshire Healthcare NHS Foundation Trust, Nottingham, UK

⁸North London Service User Research Forum, Division of Psychiatry, University College London, London, UK

⁹Bamford Centre for Mental Health and Wellbeing, University of Ulster, Londonderry, UK

¹⁰Institute of Hazard, Risk and Resilience, Durham University, Durham, UK

*Corresponding author h.killaspy@ucl.ac.uk

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Scientific summary

The QuEST research programme with feasibility RCT

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Scientific summary

Background

Mental health supported accommodation services are a crucial component of the rehabilitation care pathway, providing tailored, individualised support to people with more complex needs. They aim to address service users' functional impairments by helping them to develop community living skills, promoting recovery and independence. In the UK, there are three main types of supported accommodation, each offering different types of support: residential care, supported housing and floating outreach. Residential care provides long-term accommodation to individuals with the highest support needs in a communal setting. Support staff are available 24 hours per day, providing medication supervision, meals and other practical assistance, group and individual activities and emotional support. Supported housing provides shared or individual tenancies with staff available on site up to 24 hours per day. Placements are usually time limited to 24 months with the expectation that users will progress to more independent accommodation. Floating outreach provides visiting support to service users living in their own, permanent tenancy, aiming to reduce the support to zero over time.

It is estimated that approximately 60,000 individuals in England are in receipt of supported accommodation services, but little is known about their effectiveness.

Aim

To provide evidence on the quality, costs and effectiveness of supported accommodation for people with mental health problems in England.

Objectives

1. To adapt the Quality Indicator for Rehabilitative Care (QuIRC) and the Client Assessment of Treatment scale for use in mental health supported accommodation services.
2. To assess quality and costs of supported accommodation services in England and the proportion of people who successfully move on to more independent settings.
3. To identify service and service user factors (including costs) associated with greater quality of life, autonomy and move-on.
4. To carry out a pilot trial to test the feasibility, required sample size and appropriate outcomes and costs for a randomised evaluation of two models of supported accommodation.

Work package 1

Adaptation of the Quality Indicator for Rehabilitative Care

We conducted three focus groups with 12 staff of residential care, supported housing and floating outreach services to review the QuIRC, an international, standardised tool that assesses quality of care in longer-term mental health facilities, to adapt it for use in supported accommodation services. Participants commented on its structure, content and terminology and suggested amendments. The QuIRC was also reviewed by three expert groups: the North London Service User Research Forum, the Quality and Effectiveness of Supported Tenancies for people with mental health problems (QuEST) service user reference group and the QuEST expert advisory group, whose members had personal and professional experience of mental health

and/or supported accommodation services. Feedback was collated and the QuEST Programme Management Group discussed and agreed final changes.

A total of 28 items were rephrased, 20 were deleted and 10 were added. The final version, the Quality Indicator for Rehabilitative Care – Supported Accommodation (QuIRC-SA) comprised 143 items, from which scores on seven domains of service quality are derived: living environment, therapeutic environment, treatments and interventions, self-management and autonomy, social interface, human rights, and recovery-based practice.

Inter-rater reliability, item response variance and internal consistency of the QuIRC-SA were assessed in a random sample of 52 services from across England (residential care, $n = 14$; supported housing, $n = 21$; floating outreach, $n = 17$). Inter-rater reliability was excellent and item response spread was adequate. Internal consistency was inadequate for the living environment, self-management and autonomy, social interface and human rights domains (Cronbach's alpha < 0.7) but improved when tested in a larger sample of 87 services (residential care, $n = 22$; supported housing, $n = 35$; floating outreach, $n = 30$). Sampling adequacy was adequate (Kaiser–Meyer–Olkin statistic for all domains > 0.5). Exploratory factor analysis confirmed the validity of individual item allocation to domains (all items loaded onto a factor within the domain to which they were allocated at the $> \pm 0.3$ level). The full results are available in Killaspy *et al.* [Killaspy H, White S, Dowling S, Krotofil J, McPherson P, Sandhu S, *et al.* Adaptation of the Quality Indicator for Rehabilitative Care (QuIRC) for use in mental health supported accommodation services (QuIRC-SA). *BMC Psychiatry* 2016;**16**:101].

A web-based version of the QuIRC-SA has been developed to allow managers to assess the quality of their service, benchmarking domain scores against national averages (www.quirc.eu).

Adaptation of the Client Assessment of Treatment Scale

We facilitated three focus groups with 16 users of residential care, supported housing and floating outreach services to review the Client Assessment of Treatment (CAT) scale, a seven-item patient-reported outcome measure designed to assess service user experiences of inpatient care. Focus group participants were asked to comment on the structure, content and terminology and suggest amendments to make the measure suitable for supported accommodation. The CAT was also reviewed by the QuEST study's two expert groups, the North London Service User Research Forum and the QuEST service user reference group. Feedback was collated and the QuEST Programme Management Group discussed and agreed final changes. Only minor amendments were required, mainly to the terminology. The final version was named the Client Assessment of Treatment for Supported Accommodation (CAT-SA).

We assessed the internal consistency and convergent validity of the CAT-SA with 618 supported accommodation service users (residential care, $n = 159$; supported housing, $n = 251$; floating outreach, $n = 209$). The CAT-SA demonstrated good internal consistency (Cronbach's alpha 0.89) and satisfactory convergent validity with the item on accommodation from the Manchester Short Assessment of Quality of Life ($r_s = 0.369$; $p < 0.001$). The full results are available in Sandhu *et al.* [Sandhu S, Killaspy H, Krotofil J, McPherson P, Harrison I, Dowling S, *et al.* Development and psychometric properties of the client's assessment of treatment scale for supported accommodation (CAT-SA). *BMC Psychiatry* 2016;**16**:43].

Work package 2: national survey of supported accommodation services across England and cohort study to investigate service user outcomes

We surveyed supported accommodation services across England (work package 2i), investigated the proportion of people who moved on to more independent accommodation over 30 months and the service and service user factors associated with this (work package 2ii).

Work package 2i

We randomly sampled 87 supported accommodation services (residential care, $n = 22$; supported housing, $n = 35$; floating outreach, $n = 30$) from 14 nationally representative regions of England. We assessed the quality of each service using the QuIRC-SA and interviewed a random sample of service users to assess their quality of life, autonomy and satisfaction with services using the CAT-SA. We assessed their clinical profile (functioning, substance use, challenging behaviours and needs) through interviews with keyworkers and reviewed their case notes to clarify diagnosis, previous hospitalisations and risk history.

We recruited 619 service users (residential care, $n = 159$; supported housing, $n = 251$; floating outreach, $n = 209$). Those in residential care and supported housing services had more severe mental health problems than those receiving floating outreach. In the previous 2 years, 348 participants (57%) were reported to have been at risk of severe self-neglect and 229 (37%) had been vulnerable to exploitation. More of those in supported housing (25%) and floating outreach (20%) services had experienced crime than those in residential care (4%) in the last year.

The most expensive service was residential care, and floating outreach was the cheapest (mean cost per resident per week: residential care = £581; supported housing = £261; floating outreach = £66). Supported housing services scored higher than residential care and floating outreach on six out of the seven QuIRC-SA service quality domains. We conducted multilevel regression models to take account of clinical differences between service users and clustering within services: quality of life was similar for users of supported housing and residential care (Manchester Short Assessment of Quality of Life mean difference -0.138 , 95% confidence interval -0.402 to 0.126 ; $p = 0.306$) but lower for those in floating outreach than residential care (mean difference -0.424 , confidence interval -0.734 to -0.114 ; $p = 0.007$); autonomy was greater for those in supported housing than residential care (Resident Choice Scale mean difference 0.145 , confidence interval 0.010 to 0.279 ; $p = 0.035$) and similar for those in floating outreach and residential care. Taking these results together, supported housing services appeared to offer good value for money by supporting a similar quality of life to residential care but facilitating greater autonomy than both residential care and floating outreach at a cost that lay between the two.

The full results are available in Killaspy *et al.* (Killaspy H, Priebe S, Bremner S, McCrone P, Dowling S, Harrison I, *et al.* Quality of life, autonomy, satisfaction, and costs associated with mental health supported accommodation services in England: a national survey. *Lancet Psychiatry* 2016;**3**:1129–37).

Work package 2ii

We contacted service managers every 3 months to track participants' progress. Thirty months after recruitment, we interviewed participants' keyworkers to clarify whether or not they had moved on successfully to less supported accommodation, without placement breakdown. For those in floating outreach, this was defined as managing with less support or being discharged from the floating outreach service.

After accounting for withdrawals ($n = 7$) and deaths ($n = 26$), we followed up 586 participants from the original sample (residential care, $n = 146$; supported housing, $n = 244$; floating outreach, $n = 196$) over 30 months, of whom 243 (42%) had moved on to less supported accommodation (residential care = 10%; supported housing = 39%; floating outreach = 67%). After adjusting for demographic and clinical differences, those in floating outreach were more likely to move on successfully than those in residential care [odds ratio (OR) 7.96, 95% confidence interval 2.92 to 21.69; $p < 0.001$] and supported housing (OR 2.74, 95% confidence interval 1.01 to 7.41; $p < 0.001$) and those in supported housing were more likely to move on successfully than those in residential care (OR 2.90, 95% confidence interval 1.05 to 8.04; $p = 0.04$). This was associated with two service quality (QuIRC-SA) domain scores: human rights (which includes access to advocacy and legal representation) and recovery-based practice (which includes individualised collaborative care planning). Service users with greater needs were less likely to move on. Service costs for those who had moved on were significantly lower than for those who had not.

Work package 3: qualitative investigation of staff and service user experiences of supported accommodation

We interviewed 30 staff (residential care, $n = 10$; supported housing, $n = 10$; floating outreach, $n = 10$) and 30 service users (residential care, $n = 10$; supported housing, $n = 10$; floating outreach, $n = 10$) to identify aspects of support that they considered most useful and the challenges in providing them. Interviews were recorded, transcribed and anonymised and data analysed using inductive semantic thematic analysis.

Staff had a good understanding of the purpose of supported accommodation services – to assist service users to build skills and confidence for more independent living – and they described how they achieved this in rehabilitative- and recovery-orientated terms (e.g. incremental steps, working together to avoid dependency, tailored support). Service users were generally positive about the support provided and many understood the aims of the services but concerns were expressed by staff and service users about managing with less support after move-on. The full results are available in Sandhu *et al.* (Sandhu S, Priebe S, Leavey G, Harrison I, Krotofil J, McPherson P, *et al.* Intentions and experiences of effective practice in mental health specific supported accommodation services: a qualitative interview study. *BMC Health Serv Res* 2017;**17**:471).

Work package 4: feasibility trial comparing supported housing and floating outreach services

We conducted a feasibility trial to assess the viability, sample size and potential outcomes for a randomised evaluation of two supported accommodation models: supported housing and floating outreach. We aimed to recruit at least 60 service users referred to supported housing services in three sites (North London, East London and Gloucestershire) and randomise them to receive either supported housing or floating outreach.

We collaborated with supported accommodation referral co-ordinators, inpatient ward managers and care co-ordinators to identify eligible service users. If the clinician agreed, we approached the service user to gain their informed consent for participation. Participants were randomised to move to supported housing or an independent tenancy with floating outreach support and the outcome of randomisation was communicated to the local referrals co-ordinator to process accordingly. If the individual declined to be randomised, they were offered to participate in a naturalistic follow-up, where we simply followed them over 12 months but had no influence on their supported accommodation allocation. We conducted baseline interviews and 6-month and 12-month follow-up interviews with participants and a staff member.

Recruitment was challenging. We screened 1432 potential participants, but only consented 17, of whom eight were randomised and nine were in the naturalistic group. The majority of potential participants were not approached as they were deemed to be clinically inappropriate for the study by their clinical team ($n = 851$).

Qualitative interviews with 10 staff (six who referred service users to the trial and four who refused) and 11 service users (six who were randomised and five from the naturalistic group) were also conducted, and data were analysed using thematic content analysis. Three main themes emerged: rejection of randomisation, complexity of randomisation and value of a trial. Service users voiced concerns about their housing being decided at random, mainly because of a preference for either supported housing or floating outreach. Staff often felt that service users needed to graduate through the existing 'step-down' pathway and that there was a lack of equipoise between supported housing and floating outreach services. Nevertheless, staff and service users were highly supportive of a larger trial.

Summary of main findings

Objective 1

The QuIRC-SA and the CAT-SA can be recommended to assess the quality and user experience of mental health supported accommodation services.

Objective 2

Residential care is the most expensive and intensive type of supported accommodation, providing for individuals with the highest needs. Floating outreach is the cheapest and least intensive. Supported housing services are better quality than the other two service types but user satisfaction was similar across all three. In our adjusted models, autonomy was greatest for those in supported housing and their quality of life was similar to those in residential care; users of floating outreach services had the poorest quality of life and no greater autonomy than users of residential care. At the 30-month follow-up, 42% of service users had progressed to less supported accommodation, with this being most likely for floating outreach users. Successful move-on was associated with the degree to which the service promoted human rights and adopted a recovery orientation.

Objective 3

Staff were clear about the aims of supported accommodation and described their work in rehabilitative- and recovery-orientated terms. Service users were generally positive about the support received. However, both staff and service users felt anxious about move-on.

Objective 4

The feasibility trial failed to achieve adequate recruitment to support investment in a larger trial. Service users were reluctant to have their housing decided through randomisation and staff felt that there was a lack of equipoise between the two service models being compared.

Conclusions

The QuEST programme delivered two standardised outcome measures to assess the quality and user experiences of supported accommodation services. Our findings suggested that the current 'step-down' pathway, whereby individuals move from higher to lower supported accommodation over time is deeply ingrained in the system. The two more intensive models (residential care and supported housing) were associated with a better quality of life than floating outreach but those in supported housing had more autonomy and supported housing services were cheaper than residential care. Services that promoted human rights and recovery were more successful in supporting service users to move on (or, for floating outreach, manage with less support). This outcome was more likely for users of floating outreach (67.3%) than supported housing (39.3%) and residential care (10.3%). However, individuals in the more independent settings of supported housing and floating outreach were more likely to be a victim of crime.

Our findings cannot provide clear guidance on the most effective model(s) of supported accommodation. Indeed, our feasibility study strongly suggests that randomised trials comparing the effectiveness of different models cannot be conducted in this country. It seems likely that a range of options will continue to be required to provide appropriate support to individuals with differing needs. Future investment in this area should be guided by assessment of the mental health needs of the local population and the pros and cons of the different services that our study identified, rather than being based on purely financial drivers.

Trial registration

This trial is registered as ISRCTN19689576.

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