Improving care transfers for homeless patients after hospital discharge: a realist evaluation

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In memory of Darren O'Shea (1977–2021).

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Scientific summary

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Background

In 2013, £10M funding was made available by the Department of Health and Social Care to develop specialist integrated homeless health and care services, including 52 hospital discharge schemes. A key aim of the Homeless Hospital Discharge Fund was to increase capacity in 'step-down' intermediate care (i.e. time-limited support to bridge the gap between hospital and finding a home).

Objectives

The overall aim of this study was to explore how specialist integrated homeless health and care services worked to deliver consistently safe, timely care transfers for homeless patients. The study objectives were to:

- situate what is already known about delayed transfers of care among people who are homeless in terms of the broader literature on hospital discharge and intermediate care
- explore how different models of specialist integrated homeless health and care services are being developed and implemented across England to facilitate effective hospital discharge
- explore the views and experiences of people who are homeless and if and, if so, how specialist integrated homeless health and care services work to improve experiences of hospital discharge and deliver improved health and well-being outcomes
- explore how specialist integrated homeless health and care services have an impact on outcomes and different patterns of service use across the whole system (e.g. the use of unplanned care) and the associated cost implications of this
- produce a 'toolkit' for commissioners on developing specialist integrated homeless health and care services if the findings support this.

The evaluation commenced in September 2015 and was completed in December 2019. It was carried out by a consortium of researchers from different universities, led by King's College London (London, UK). Ethics approval was obtained from the London and South East Research Ethics Committee in April 2016 (reference 16/EE/0018).

Methods

The study adopted a realist evaluation methodology on the basis that the heterogeneity of the homeless hospital discharge schemes warranted a mixed-method approach, incorporating theories that relate context to outcomes. The first stage was a series of literature reviews to arrive at a tentative programme theory about works to deliver safe, timely transfers of care (objective 1). This was then tested empirically and refined through three work packages. Work package 1 undertook a documentary analysis of project information for 52 homeless hospital discharge schemes (plus an additional 10 schemes that were not funded by the Homeless Hospital Discharge Fund). This enabled us to map how the schemes were being implemented (objective 2).

Work package 1 also generated qualitative case studies of different homeless hospital discharge scheme typologies (and configurations) (five sites), comparing these with standard care (two sites). In-depth fieldwork was carried out in each site and explored how these different schemes 'worked' (or did not work) from the perspective of people who were homeless and recently discharged from hospital.

Semistructured interviews were carried out shortly after discharge and then again 3 months later (objective 3). Work packages 2 and 3 (objective 4) explored how homeless hospital discharge schemes had an impact on outcomes and different patterns of service use across the whole system (e.g. use of unplanned care) and the associated cost implications of this. In work package 2, we undertook a data linkage process. This involved an analysis of linked Hospital Episode Statistics and Civil Registration death data for homeless patients (n = 3882) at any one of 17 sites with a homeless hospital discharge scheme between 1 November 2013 and 30 November 2016. Our primary outcome was death, which we analysed in subgroups of *International Statistical Classification of Diseases and Related Health Problems*, Tenth Revision, chapter-specific deaths and deaths from causes amenable to health care. Work package 3 was an economic evaluation. This used a range of modelling techniques to explore (1) what is the cost-effectiveness of homeless hospital discharge schemes for the NHS, (2) what is the cost–utility of homeless hospital discharge schemes for the NHS and (3) what is the cost–utility of homeless hospital discharge schemes for the broader public perspective?

Findings

The first study objective was to situate what is already known about delayed transfers of care among people who are homeless in terms of the broader literature on hospital discharge and intermediate care. This evidence was used to arrive at a tentative programme theory.

Hospital discharge has always been a challenge for the NHS. However, there is increasing evidence about 'what works' to facilitate safe, timely transfers of care. This evidence has been synthesised by government bodies in a high-impact change model. We hypothesised that this model may offer a set of mechanism intervention resources and key practice principles to ensure improved discharge for homeless patients. The high-impact change model encompasses eight changes, including protocols for managing patient flow, multidisciplinary discharge co-ordination and 'step-down' intermediate care. Empirical testing of this 'generic' model was important because much of the evidence underpinning it related to research with older people.

Early programme theory refinements

A second review of the literature on intermediate care that catered specifically for people who were homeless highlighted an additional mechanism intervention resource for 'patient in-reach'. Multidisciplinary 'patient in-reach', in which specialist general practitioners and nurses work alongside housing workers, was identified as an important mechanism intervention resource for addressing issues such as early 'self-discharge' and continuity of health care post discharge. Although delayed discharges are rare, many homeless patients will leave hospital before treatment is completed because of poor management of their substance misuse issues. Clinically led homeless teams providing 'patient in-reach' addressed this, for example, by ensuring that ward staff adhered to clinical pathways pertaining to urgent stabilisation of drug withdrawal through access to the prescriptions of National Institute for Health and Care Excellence-recommended medications, such as methadone.

Implementation

The second objective of the study was to explore how specialist discharge schemes were being developed and implemented across England. A documentary analysis and series of preliminary interviews revealed that the homeless hospital discharge schemes were employing high-impact change model interventions in different ways and in different combinations. Some offered a specialist (clinically led) discharge co-ordination service (ending support when the patient left the acute sector/hospital), whereas other 'housing-led' schemes combined (non-clinical uniprofessional) discharge co-ordination with a period of 'step-down' intermediate care (usually via floating support in the community and less commonly in a dedicated residential facility). We characterised the main typological distinctions between the homeless hospital discharge schemes in terms of (1) clinically led (multidisciplinary) schemes compared with housing-led (uniprofessional) schemes and (2) schemes that had direct access to intermediate care and those that did not (all vs. standard care).

What works, for whom, in what circumstance and why?

Overall, there was good evidence from across the three work packages to support our programme theory about the utility of the high-impact change model:

- Employing a range of different economic modelling techniques, specialist homeless hospital discharge schemes were consistently more effective and cost-effective than standard care (work package 3).
- NHS trusts with specialist homeless hospital discharge schemes had lower rates of delayed transfers of care linked to 'housing' than standard care (work package 1).
- Employing a range of different economic modelling techniques, homeless hospital discharge schemes with direct access to specialist intermediate care (step down) were more effective and cost-effective than homeless hospital discharge schemes that have no direct access to intermediate care (work package 3).
- The data linkage showed that homeless hospital discharge schemes with a step-down service were associated with a reduction in subsequent hospital use, with an 18% reduction in accident and emergency visits compared with homeless hospital discharge schemes without a step-down service (work package 2).
- Clinical advocacy (patient in-reach) provided by hospital-based homeless health-care teams increased access to planned (elective) follow-up care. This is an especially important outcome, as one in three deaths of people in our homeless hospital discharge cohort were due to common conditions (e.g. heart disease), which are amenable to timely health care.

What 'troubles' our programme theory?

Work package 2 collected 13,529 records from homeless hospital discharge scheme sites that were linked to 3882 individual admissions and 600 deaths. The data linkage showed that the homeless hospital discharge scheme cohort were more likely to be readmitted in an emergency, with five times the rate of unplanned hospital readmission and five times the rate of accident and emergency visits than housed people from deprived neighbourhoods. The data linkage also showed that one in three deaths of those in the hospital discharge cohort were from conditions amenable to timely health care.

Although these data raise some uncertainties about the efficacy of discharge schemes to deliver their intended outcomes, we concluded that it may be indicative of a need to find ways to ensure that they had more of an impact. Using the metaphor of the lighthouse, we further hypothesised that since the end of the Homeless Hospital Discharge Fund a lack of sustainable recurrent funding may have progressively dimmed their effects.

We identified three key contextual factors that could dampen the effect of the mechanism intervention resources and key practice principles in out-of-hospital care: (1) a lack of adequate funding for the homeless hospital discharge scheme itself; (2) situations where permanent supportive housing and wider community support services (including those for chronic care management) are poorly resourced, inadequate or lacking; and (3) circumstances where stigma and cultural distance persist.

Need for increased investment in intermediate care

Nationally, it is recognised that all types of intermediate care (for all patient groups) remain 'curiously invisible' to commissioners and that there is a need for a major change in investment in intermediate care services to ensure great impact on the full range of key metrics, such as reducing hospital readmission rates. We observed how the lack of investment in homeless hospital discharge schemes was having an impact on scheme fidelity and the ability to achieve intended outcomes. Some homeless hospital discharge schemes ceased to operate, whereas others have progressively reduced in reach and scale, sometimes reducing the numbers of hospitals they are able to work with or reducing the size of the team (workforce). In one site, the increasing gap between workforce capacity and demand led to a range of problems, including recruitment and retention difficulties (low team morale) and an increased focus on freeing-up hospital beds rather than other aspects of the services (such as patient engagements and choice). This was associated with poorer outcomes, including discharges to the street.

Need for increased investment in housing, care and support

The second dampening effect was shown to be the wider context in which some homeless hospital discharge schemes were situated, namely a shortage of permanent supportive housing, care and support. The findings of this study strongly support those reported in the national evaluations of intermediate care for older people. In these evaluations, it is reported that interventions that are shown to work well in areas with well-resourced and efficient community support services will have a much reduced impact in areas where services are inadequate or lacking. We observed how homeless hospital discharge schemes could become blocked as these 'time-limited' interventions started to be substituted for long-term care and support.

Need for investment in chronic care management

Compared with the comparator group (matched housed patients), patients in the homeless hospital discharge scheme cohort had much higher levels of multiple morbidity or combinations of long-term conditions or illnesses, with 8% having five or more conditions (vs. 3% in the comparator group). These findings alert us to the strong possibility that, regardless of scheme typology, the benefits of any type of short-term (time-limited) intervention targeted at this specific population group will quickly evaporate if they are not embedded as part of a fully integrated complex adaptive system that encompasses adequate provision for longer-term chronic care management and, indeed, palliative care. It goes without saying that more preventive working is needed to reduce homelessness and prevent these conditions from arising in the first place.

Changes in reasoning

The Homeless Hospital Discharge Fund introduced additional 'resources' into contexts that were heavily affected by austerity. Indeed, there is a strong case to be made that this additional resource per se has improved outcomes (without necessarily firing any change in reasoning, as is anticipated in realist theory). However, with regard to challenging poor practice (i.e. discharge to the street), there are questions as to what extent the high-impact change model mechanisms have secured changes in reasoning. Where services were inadequate or lacking, we observed that it remained (tacitly) accepted practice (across both standard and specialist care sites) to discharge homeless patients to the street rather than delay their transfer of care. Older people, meanwhile, were much more likely to have their discharge delayed (to avoid unsafe discharge). This raises the question as to why patients who are homeless are not accorded the same leeway to remain in a hospital bed while they wait for the housing, care and support of their choice to be arranged. We observed that patients who were homeless and using substances were particularly affected by unsafe discharge, especially when their behaviour was perceived to be challenging. Our observations suggest that this difference may lie in the perpetuation of stigma and cultural distance, which positions 'homeless patients' as somehow less vulnerable and/or deserving than other groups of patients. This suggests that mechanism intervention resources for adult safeguarding that focus attention on unequal treatment (neglect) are currently the missing piece of the jigsaw and may be a necessary driver for changes in reason.

Mixed evidence for multidisciplinary team working

A key finding of work package 3 was that uniprofessional (housing-led) schemes are as effective and cost-effective as multidisciplinary (clinically led) schemes on a wide range of measures. Indeed, other studies of intermediate care have cautioned against overinterpreting the impact of multidisciplinary working. Most likely, these positive results reflect the value of good-quality step-down 'floating support' in bridging the gap between the hospital and the community. We observed how the benefits of a hospital stay and the interventions of the clinically led multidisciplinary homeless teams could quickly evaporate where there was a lack of practical support immediately after discharge.

Conclusion

There is good evidence to support the commissioning of specialist homeless hospital discharge schemes, as they are consistently more effective and cost-effective than standard care. In terms of implementation, the empirical data support our original programme theory about the utility of the high-impact change model for guiding the development of specialist (homeless) provision in a wide range of different contexts. Evidence that troubles the theory alerts us to what can dim the effects of homeless hospital discharge schemes. In particular, the persistence of stigma and the consequent need to strengthen safeguarding to trigger the change in reasoning to ensure safe, timely transfers for all patients. The COVID-19 pandemic has made the need to increase the capacity and responsiveness of community and intermediate care services even more urgent. The morbidity and mortality data for the homeless hospital discharge scheme cohort confirms that homeless patients are precisely some of those who stand to benefit most. Such intelligence adds to policy aims to have an impact on underserved populations and reduce inequalities. The full range of sensitivities and how they can be applied to the high-impact change model have been brought together in a 'support tool' [URL: https://kclpure.kcl.ac.uk/portal/en/publications/transforming-outofhospital-care-for-people-who-are-homeless-support-tool–briefing-notes(fca232e9-1d6c-44f7-a477-c69963393807).html (accessed 3 June 2021)].

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