Early discharge in acute mental health: a rapid literature review

CLIBBENS, Nicola, HARROP, Deborah <http://orcid.org/0000-0002-6528-4310> and BLACKETT, Sally

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Abstract

Long psychiatric hospital stays are unpopular with services users, harmful and costly. Economic pressures alongside a drive for recovery orientated care in the least restrictive contexts, have led to increasing pressure to discharge people from hospital early. Hospital discharge is however complex, stressful and risky for service users and families. This rapid literature review aimed to assess what is known about early discharge in acute mental health. Searches were conducted in nine bibliographic databases, reference lists and targeted grey literature sources. Fourteen included papers focused on early discharge in mental health, a population over 18 years with a mental health condition and reported outcomes on therapeutic care or service delivery. Quality appraisal was undertaken using The Mixed Method Appraisal Tool. The meta-summary of the literature found that early discharge **was neither** provided to all inpatients **nor** limited to **the Crisis Resolution and Home Treatment (CRHT) service model internationally**. Early discharge interventions required collaborative working and discharge planning. It was not associated with unplanned readmissions and had a small effect on length of stay. Most studies reported service outcomes **whereas health outcomes were** underreported. Professionals and service users were positive about early discharge and **service users asked for peer support. Carers preferred** hospital or day hospital care suggesting their need for respite. Limitations in the scope, detail and quality of the evidence about early discharge leaves an unclear picture of the **components** of early discharge as an intervention, its effectiveness, cost effectiveness or outcomes.

Keywords

adult mental health, literature review, patient discharge, psychiatric nursing

Introduction

Psychiatric de-institutionalisation is a global priority and has resulted in large reductions in psychiatric beds in most high income countries (WHO, 2013). Whilst psychiatric hospital care in these countries has been replaced with a range of community based alternatives, unsustainable bed occupancy levels continue to be reported, particularly in acute mental health care (Gilburt et al., 2015).

Psychiatric hospital stays are becoming shorter, enabling care delivery in the least

restrictive environment (Crompton and Daniel, 2006), avoiding harm caused by prolonged psychiatric hospitalisation (Loch, 2014) and reducing service costs (McCrone et al., 2009). One approach used to reduce the length of hospital stay is to facilitate an early discharge (Crompton and Daniel, 2006).

Any psychiatric hospital discharge is associated with challenges due to the complex nature of the issues people face (Paton et al., 2016), including risk of relapse; not taking medicines as prescribed; not attending the first outpatient appointment (Steffen et al., 2009); disrupted family environment, increased violence within the family, social embarrassment due to stigma (Loch, 2014); and unplanned psychiatric readmission (Vigod et al., 2013). The most catastrophic adverse event associated with psychiatric hospital discharge is suicide (NCISH, 2016). Analysis of suicide rates internationally, show increases in the months following psychiatric hospital discharge. More specifically, Bickley et al., (2013) observed that the highest suicide rate was in the first week, with a peak in the rate on the second day post discharge.

Discharge from acute mental health wards is experienced by services users as chaotic and stressful (Wright et al., 2015) as they struggle to readjust to family life (Keogh et al., 2015). Family members and informal carers report receiving inadequate information and experience frustration at an apparent lack of progress towards recovery, particularly when the discharge takes place before the acute episode has resolved (Gerson and Rose, 2012).

Service development has tended to focus on hospital avoidance with comparatively less emphasis on hospital discharge (Wright et al., 2015), yet hospital admission can only be avoided for a proportion of people (Sjölie et al., 2010). Practice experts have suggested that hospital avoidance interventions alone will not reduce pressure on beds without an equal emphasis on facilitating early discharges (Lakhani, 2006).

Crisis Resolution and Home Treatment services (CRHT) provide assessment, referral and urgent care in the community for people experiencing an acute crisis related to their mental health (Crompton and Daniel, 2006). Implementation of CRHT as a service design is limited to the USA, Australasia and Europe; specifically the Netherlands, Norway and the UK (Lloyd-Evans et al., 2017). Whilst the facilitation of early discharge is described as a core function of CRHT (Lloyd-Evans and Johnson,

no date), it has not been implemented in every CRHT in the UK or elsewhere (Lloyd-Evans et al., 2017). Internationally, crisis services have been described as 'heterogeneous' in title and function (Johnson, 2007). Because of variations in crisis care service design, it is important to understand examples of early discharge not limited to CRHT models.

There are a number of published systematic reviews related to **crisis care, length of hospital admission and discharge planning** in mental health practice**;** none have focused specifically on early discharge. This rapid review aimed to assess what is known about early discharge in acute mental health. To meet this aim, this review focused on extracting data that described service designs, service and health outcomes, the characteristics of people who are discharged early, the components of interventions delivered by practitioners and people's experiences of early discharge.

Methods

Design

The rapid literature review method, (Booth et al., 2016) was used to provide an assessment of what is already known about early discharge in acute mental health. Rapid reviews use systematic review methods to search and critically appraise existing research within limited resource and time constraints; this review was conducted in ten months to meet the expectations of the funder. Rapid reviews have been criticised for being less rigorous than systematic reviews. Three reviews of the rapid review method however, reported little empirical evidence of a negative impact on the study conclusions, when compared to systematic review methods (Tricco et al., 2015). This rapid review is reported in accordance with the Preferred Reporting Items for Systematic review and Meta-Analysis (PRISMA) statement (Liberati, et al., 2009). RefWorks, a bibliographic data management tool, was used to organise the results from the literature searches and to remove duplicate results. All papers not held by the author's libraries were requested from The British Library.

Search methods

The information sources and search terms used were identified by all authors of the review, agreed with the project reference group, and the searches undertaken by the Information Scientist (DH). Nine bibliographic databases were searched in March 2016 as follows: Applied Social Sciences Index and Abstracts (ASSIA) (ProQuest

interface), CINAHL (EBSCO interface), Cochrane Library (Wiley interface), EMBASE (NICE Healthcare Databases interface), Health Management Information Consortium (HMIC) (NICE Healthcare Databases interface), MEDLINE (EBSCO interface), PsycINFO (ProQuest interface), Scopus (Elsevier interface), Sociological Abstracts (ProQuest interface). Grey literature searches were undertaken on targeted resources and NICE Evidence Search (NICE) using a truncated search strategy in May 2016. Author, citation and reference searches were also undertaken in December 2016.

Search strategy

The search strategy comprised three facets with terms relating to: (1) early discharge, (2) inpatient settings such as hospital wards, and (3) mental health. All terms were searched for in the title and abstract fields and controlled vocabulary terms were used where available. The Boolean operators AND and OR were used, alongside truncation, phrase searching and proximity operators. Where available, search limiters were applied to only retrieve studies published since January 2006 onwards and published in the English language. The search syntax and, where available, the controlled vocabulary terms were adapted for use on each information source. The full search strategy, written up for MEDLINE (EBSCO interface) is provided in Appendix 1.

Eligibility criteria

Studies eligible for inclusion in the review must have reported primary quantitative, qualitative, or mixed methods data, and have been published in the English language between January 2006 and March 2016. Studies that reported participants aged 18 years or over, with a primary diagnosis of a mental health condition or with comorbidities (provided the primary focus was on mental health) were eligible for inclusion. Studies were excluded if the primary focus was on participants with: learning disabilities, substance use, dementia, non-psychiatric diagnoses or pharmaceutical interventions. The reported focus of the study must be (1) early discharge from an acute mental health inpatient setting, and/or (2) **community mental health care** where primary data related to early discharge is provided. Studies were not required to have included a comparator. The study must have focused on one or both of the outcomes as follows: (1) the therapeutic management

of care, (2) service delivery and structure. Studies were excluded if the setting was psychiatric intensive care, because people are less likely to receive an early discharge directly from this setting. Settings also excluded were forensic psychiatric services, specialist psychotherapeutic or therapeutic communities.

Study selection

All papers were assessed for eligibility for inclusion in the review based on their relevance using the eligibility criteria and in the order of: intervention, setting, population, study type and outcomes. The study selection process was piloted before the results were independently screened by two reviewers (either NC, DH or SB). Reviewers were not blinded to the authors of the studies that were screened. Screening for relevancy took place first at title and abstract level, followed by a full-text reading of all remaining papers. Discrepancies in screening were resolved by discussion.

Quality appraisal

The Mixed Methods Appraisal Tool (MMAT) (Pluye et al., 2011) was used to appraise and describe the quality of each of the included papers. It comprises five sets of criteria; each set designed for use with specific study types. All of the included papers were appraised by one of the review authors (NC or DH) and four out of the 14 included studies were randomly selected to be appraised by a second reviewer (NC or DH). Studies were not excluded as a result of their MMAT performance as “there is little empirical evidence on which to base decisions for excluding studies based on quality assessment” (Thomas and Harden, 2008). Studies were also not weighted. Instead, as suggested by the creators of the MMAT, each paper received a descriptive comment for the relevant sections of the MMAT and the overall quality of each study was summarised and presented as a table.

Data abstraction

An a priori, 62 item data extraction instrument was developed and piloted by (NC, DH); data were extracted by one of the review authors (NC or DH) and four out of the 14 included studies were randomly selected to have all data extracted by a second reviewer (NC or DH). No data extraction discrepancies were found.

Data were extracted from each included study on: (1) study details, (2) service design, (3) patient population data, (4) interventions, (5) admission/discharge process, (6) recovery outcomes post early discharge, (7) adverse events post early discharge, (8) experience and acceptability of early discharge, (9) economic evaluation. A list of items included in the data extraction tool is in Appendix 2.

Data synthesis

The findings from the papers included in the review comprise quantitative, qualitative or mixed methods data. To synthesise the results, two approaches were taken at different stages of the process; (1) integration during data extraction and (2) qualitative meta-summary (Sandelowski et al., 2007). Booth et al., (2016) suggest that data integration can be achieved through the use of a common structure, framework or model. This was realised through the use of an identical data extraction instrument which was used irrespective of study type. Data were then collated across all included studies using the nine headings in the data extraction tool.

Qualitative meta-summary informed the approach to data synthesis in the respect that whilst the findings draw on quantitative, qualitative and mixed method data; the findings are presented using a descriptive approach and are aggregative and assembled in accordance with their topic (Sandelowski et al., 2007). Barnett-Page and Thomas' (2009) critique of the methods used in qualitative synthesis note this approach as distinct as "the findings are accumulated and summarised rather than transformed" and that "meta-summary is a way of producing a 'map'" of the findings. In order to manage clinical and statistical heterogeneity, the review adopted an inclusive approach to evidence synthesis and sought to use the interventional and contextual complexity that was present in the data by treating heterogeneity as an avenue to establish insights into the varied findings on what is known about early discharge in acute mental health (Lorenc et al., 2016).

Risk of bias

The risk of publication bias has sought to be minimised through the inclusion of grey literature searches. The possibility of bias remains, however, due to factors such as non-publication, unclear reporting methods and selective reporting of findings.

The data collected using the MMAT has been pooled in order to generate an overall picture of the quality of the body of evidence. It was not possible to complete a formal assessment of the risk of bias at individual finding level due to a lack of homogeneity. However, the quality of the body of evidence is discussed in relation to: methodological rigour, including data collection and analysis; relevance of findings to the context of the research; and identification of limitations and trustworthiness. These headings were identified by undertaking a summary of the meaning of each of the MMAT questions for each study type, and guidance from Hannes (2011) who reflects on the importance in high quality reviews, of using rigorous and trustworthy research. Importantly, because this is a mixed method review, Hannes (2011, p.4) notes the need to acknowledge the "multi-dimensional concept of quality in research", beyond the sometimes contested importance of the concepts of reliability, validity and objectivity.

Results

A total of 2307 unique papers were yielded from the database searches, and an additional 873 papers from the grey literature searches. Eligibility assessment at title and abstract level resulted in 81 papers being retained from the database searches and 52 papers from the grey literature searches. Following a full-text reading of all remaining papers, 10 were retained from the database searches and three from the grey literature searches. One further paper was identified from having searched the reference lists of included papers. No papers were identified through author and citation searches on the included papers or by searching the reference lists of relevant review papers. In total, 14 papers met the eligibility criteria and underwent quality appraisal and data extraction processes and were included in the review. The literature review screening process is summarised in Figure 1.

Figure 1 PRISMA flow diagram (Liberati et al., 2009)

Study characteristics

Of the 14 included papers, seven reported quantitative data (Desplenter et al., 2010; Kingsford and Webber, 2010; Kusaka et al., 2006; Niehaus et al., 2008; Robin et al., 2008; Shumway et al., 2012; Tulloch et al., 2015), three reported qualitative data (Carpenter and Tracy, 2015; Gaynes et al., 2015; Rhodes and Giles , 2014) and four

mixed methods data (National Audit Office, 2007; Lawn et al., 2008; Morgan et al., 2007; Morgan and Hunte, 2008). Three of the papers report findings using the same set of study data (Morgan and Hunte, 2008; National Audit Office, 2007; Morgan et al., 2007).

Included studies were conducted internationally, predominantly in middle to high income countries (Table 1). They report data related to early discharge focused on; CRHT or home treatment (Morgan and Hunte, 2008; Kingsford et al., 2010; Tulloch et al., 2015; Carpenter and Tracy, 2015; National Audit Office, 2007; Morgan et al., 2007; Rhodes and Giles, 2014); acute inpatient mental health (Desplenter et al., 2010; Kusaka et al., 2006; Niehaus et al., 2008); evaluation of interventions to reduce hospital stays (Gaynes et al., 2015; Robin et al., 2008); impact of reduced acute mental health beds (Shumway et al., 2012) and peer support (Lawn et al., 2008). Where studies included patient data (Carpenter and Tracy, 2015; Desplenter et al., 2010; Kingsford and Webber, 2010; Lawn et al., 2008; Niehaus et al., 2010; Robin et al., 2008; Shumway et al., 2012; and Tulloch et al., 2015) this is summarised in Table 2.

Table 1 Summary of Included Studies

Table 2 Summary of Population Data

Quality appraisal

The quality of each of the included papers was appraised using the MMAT (Pluye et al., 2011) and is reported as a descriptive summary in Table 1.

The quantitative data reported was limited by missing data (Niehaus et al., 2010), particularly at discharge (Tulloch et al., 2015; Desplenter et al., 2010). There was a reliance on historical and retrospective documentary evidence drawn from health or government records and national data sets (Kingsford and Webber, 2010; Shumway et al., 2012; Tulloch et al., 2015). Two studies collected prospective data (Kusaka et al., 2006; Robin et al., 2008). Most studies were observational and lacked comparators. Studies with a comparator were limited by the control sample being larger than the interventions (Robin et al., 2008). The quasi-experimental design was neither randomised nor blinded (Kusaka et al., 2000). Only one study had a long

follow-up of five years (Robin et al., 2008). The extraction of specific data related to early discharge was difficult in some studies where the data was subsumed in analysis of crisis care (Robin et al., 2008; Carpenter and Tracy 2015).

Some studies excluded those with the most complex needs (Robin et al., 2008) and others focusing exclusively on the poorest and most needy social groups (Shumway et al., 2012). Some social and demographic variables were underreported including ethnicity, living conditions and socioeconomic status (Desplenter et al., 2010; Niehaus et al., 2010) and health outcomes were underreported with a greater emphasis on service outcomes across all included studies.

Five studies reported qualitative data (NAO, 2007 [Morgan et al., 2007; Morgan and Hunte 2008]; Lawn et al., 2008; Rhodes and Giles 2014; Carpenter and Tracy, 2015 and Gaynes et al., 2015). Limited reporting of the qualitative data in these studies made the quality of the findings difficult to evaluate. The sample was not fully described in NAO, (2007) [Morgan et al., 2007; Morgan and Hunte 2008] and Lawn et al., (2008) and the characteristics of the sample was unclear in Rhodes and Giles, (2014). The methodological approach to analysis of the qualitative data was also not fully reported (Carpenter and Tracy, 2015; Gaynes et al., 2015) and few qualitative findings were reported by Gaynes et al., (2015) and Lawn et al., (2008). The mixed method studies (NAO, 2007 [Morgan et al., 2007; Morgan and Hunte 2008] and Lawn et al., 2008) did not describe mixed method data synthesis and emphasised reporting of quantitative data, with an inadequate account of the contribution of the qualitative data.

Results of synthesis

Findings are reported under five headings identified through the process of meta-summary (Sandelowski et al., 2007) as follows; patient population, early discharge services, practitioner interventions, experiences of early discharge and health outcomes, summarised in Table 3.

UK studies of early discharge were centred on the role and function of CRHT (NAO, 2007; [Morgan et al., 2007; Morgan and Hunte, 2008]; Carpenter and Tracy, 2015; Kingsford and Webber, 2010; Rhodes and Giles, 2014; Tulloch et al 2015). In a French study, Robin et al., (2008) compared a planned four day hospital stay followed by ambulatory care with a control group receiving usual care. In Australia,

Lawn et al., (2008) evaluated a pilot peer supported early discharge service where peer support workers received training, were salaried and worked alongside adult mental health services.

Three studies focused on interventions delivered on the acute wards to facilitate earlier discharge. In Belgium, Desplenter et al., (2010) screened people at admission to identify those at risk of delay in the discharge process. A Japanese quasi-experimental study, Kusaka et al., (2006) compared the impact on length of stay of a critical care pathway delivered by ward nurses to usual care. Crisis discharges were used to reduce length of stay and manage bed crises in a South African mental health inpatient unit for men (Niehaus et al., 2010).

Two studies focused on the impact of service design on length of hospital stay; Shumway et al., (2012) reported reductions in length of stay following large strategic reductions in available inpatient acute beds and Gaynes et al., (2015) asked key informants about the impact of longer or shorter hospital stays.

Table 3 Summary of study outcomes and findings

Patient Population

Findings related to the number of inpatients discharged early and their characteristics are presented under this heading. Robin et al., (2008) and Desplenter et al., (2010) reported no notable differences in mean age or gender between those receiving an early discharge intervention and those who did not. Tulloch et al., (2015) however, reported that men had modestly lower odds of receiving an early discharge and more women received peer supported early discharge (Lawn et al., 2008) and ward critical care path (Kusaka et al., 2006). Tulloch et al., (2015) reported small differences in rates of early discharge according to ethnicity in London; 5% fewer ‘White British’ people and 4% more ‘Black (African or Caribbean)’ people were discharged early.

There were important differences related to socioeconomic status of those discharged early between studies conducted in the UK and USA. In the USA, the poorest, uninsured people with unstable housing had the shortest hospital stays (Shumway et al., 2012; Gaynes et al., 2015) whereas, a similar population in the UK were less likely to be discharged early (Kingsford and Webber, 2010; Tulloch et al.,

2015).

Approximately half of acute inpatients were considered for CRHT early discharge (Morgan et al., 2007; Tulloch et al., 2015) and between 29% (Tulloch et al., 2015) and 43% (Morgan et al., 2007) were discharged early. The need for a ward based discharge management intervention was assessed at the point of admission in 91.3% of in-patients and 26.9% received the intervention (Desplenter et al., 2010).

In a multiple regression analysis of CRHT supported early discharges, Tulloch et al., (2015) reported that having a primary diagnosis of a personality disorder or a drug and alcohol disorder when compared to schizophrenia at least halved the odds of early discharge. Modestly lower odds of early discharge were reported for people with non-psychotic disorders and physical health problems.

Having had a long hospital admission in the previous two years, having been previously discharged directly to a community mental health team, being discharged to a care home, problems with living conditions, moving house during the admission, having problems with substance use or having relationship problems also reduced the odds of early discharge (Tulloch et al., 2015).

The odds of being discharged early were modestly higher for those who had been successfully home treated within the previous two years, those with bipolar disorder or mania, relative to schizophrenia, as well as for those experiencing hallucinations and delusions, depression, and self harm. People with reported relationship status of “married, divorced, separated or widowed” were also associated with moderately increased odds of receiving an early discharge (Tulloch et al., 2015 p408).

Early Discharge Services

Under this heading, service designs used to deliver early discharges and service outcomes are described. The outcomes reported included length of hospital stay and rate of hospital readmission.

CRHTs in the UK function as a gateway for all acute mental health admissions; professional staff deliver this through their gatekeeping role. Where more than 50% of admissions involved a professional gatekeeper; rates of early discharge more than

doubled (Morgan et al., 2007). Gatekeeping also provided an important opportunity to identify people suitable for early discharge at the point of admission (Morgan and Hunte, 2008; National Audit Office, 2007).

Early discharges accounted for 36% of CRHT team activity and 51.6% of those identified for early discharge were discharged the same or next day (Tulloch et al., 2015). Integrated models of service provision between wards, CRHT and community teams improved the transition through the acute care pathway and reduced reported conflict between teams about levels of risk (Rhodes and Giles, 2014). Bed shortages were associated with interruptions in the flow of people through acute care in the UK (Rhodes and Giles, 2014) but not in the USA (Shumway et al., 2012). Where practitioners had a specific role to facilitate early discharges in CRHT; partnerships and communication between ward and CRHT staff improved (Morgan et al., 2007). Where psychiatrists were not embedded in CRHT, extended periods of leave were used instead of early discharge (Morgan and Hunte, 2008) although the role of leave of absence in early discharge facilitation was not described.

Tulloch et al., (2015) estimated that CRHT early discharges reduced length of stay by four days with an average of 22 post discharge episodes of face-to-face contact with no reported differences in the readmission rates between those who received early discharge and those who did not.

Robin et al., (2008) reported an analysis from a longitudinal dataset where mean cumulative bed days were calculated over five years for three interventions and a control group. Those who received the intervention similar to early discharge [brief hospital care with ambulatory care] in year one, had fewer cumulative bed days over five years when compared to the control group. Rates of readmission between the interventions and control were not statistically significant. Lawn et al., (2008) reported a reduction in bed occupancy across the peer supported early discharge project of 300 bed days, and 16.3% of the sample was readmitted. Despite this, the pilot resulted in service cost savings. NAO, (2007) also reported service cost savings but because these data were related to implementation of CRHT as a whole, findings could not be attributed specifically to early discharges.

Some early discharge interventions were ward based. Niehaus et al., (2010)

described a service design where urgent suitability for crisis discharge was assessed using a decision tool. Crisis discharges resulted in a shorter mean length of stay of 40.6 days compared to a mean length of stay for all male inpatients of 43.9 days and men receiving usual discharges a mean 46.6 days. Incomplete discharge planning may have contributed to higher readmission rates of 45% for men who had received a crisis discharge compared to 30% for men receiving usual discharge; and a shorter time to readmission than usual discharges (Niehaus et al., 2010).

Kusaka et al., (2006) evaluated the impact of implementing a ward based critical care pathway designed to facilitate early discharge. Large reductions in lengths of stay of 132.1 days in the intervention group and 72.6 days in the control group were reported. A discharge screening process using the Global Assessment of Functioning (GAF) was successfully implemented at the point of admission for over 91.3% of people (Desplenter et al., 2010). The GAF scores indicated that those with the lowest functioning and highest needs, who were identified as at risk of discharge delays, were provided with an enhanced discharge intervention.

Shumway et al., (2012), reported a reduction in length of stay from an average of 13.3 days to 9.6 days with no impact on readmission rates at 30 days following a programme of strategic bed closures. Long term service planning and the availability of post discharge services including housing (Shumway et al., 2012) were considered important factors in the delivery of early discharges (Gaynes et al., 2015). An increase in early discharges to temporary accommodation was reported, including to hotels, hostels, night shelters and bed and breakfasts (Shumway et al., 2012; Morgan and Hunte, 2008) and homelessness was described as a barrier to early discharge (National Audit Office, 2007). Early discharge was considered important in the USA because key informants described, from their experience, that longer hospital stays risked housing and job loss (Gaynes et al., 2015). Having an unstable home was linked to longer hospital stays in the UK (Tulloch et al., 2015) and shorter hospital stays with more readmissions in the USA (Gaynes et al., 2015).

Practitioner interventions

Early discharge interventions delivered at practitioner level are described under this heading. The critical care pathway implemented by acute ward nurses included

planned pharmacological interventions; symptom scoring; physical health assessment; support with self care; recreational activities on the ward; and support with life skills (Kusaka et al., 2006).

Collaborative discharge plans agreed between the person, their primary caregiver, the hospital and other agencies should be initiated from the point of admission (Desplenter et al., 2010) and early discharge should take place as soon as the 'reasons for admission' have been resolved (NAO, 2007; Desplenter et al., 2010; Shumway et al., 2012). Crisis discharges were implemented if male patients met four criteria; most clinically stable on the ward, not posing an immediate threat to self or others, less ill than the person in need of urgent hospital admission, and having most practical follow-up arrangements in place.

In a qualitative study of ten service users' experiences of home treatment where three participants had been discharged early, participants described having someone to talk to across 24 hours helpful although professionals were described as too focused on medication and the immediate situation rather than on the causes of the crisis. A lack of consistency of therapeutic approach between professionals, too many different staff members visiting and visits not always appropriately timed were causes for concern. Participants asked for peer support, which they felt was more accessible in hospital (Carpenter and Tracy, 2015).

In an evaluation of a pilot, peer-supported early discharge service, peer supported early discharge was initiated by a visit from a peer worker before discharge from hospital in order to provide a bridge between hospital and home. Individually planned peer support was then provided for 8-12 hours over the first one to two weeks post discharge. Peer support workers accompanied the person to appointments, helped to make important telephone calls, spent time listening to the person and developing a supportive relationship. The peer support workers also provided support to family members (Lawn et al., 2008).

Experiences of early discharge

Experiences of early discharge from the perspectives of people being discharged early, their carers and professionals are presented under this heading. Service users described peer support workers as providing; understanding, trust, reassurance,

continuity of care, positive role modelling and better links between hospital and home. Peer support helped them to feel normal and not different, to understand themselves more, to believe in their ability to meet goals, and this resulted in an improved experience of the discharge process. Carers described peer support workers as supportive and providing a sense of hope. Health professionals described them as providing warmth and understanding, building a rapport with service users, supporting the flow of information, providing prompt responses to referrals and working well as part of a team (Lawn et al., 2008).

Health care staff were reported to be enthusiastic about early discharge (Robin et al., 2008) and felt that it increased choice, decreased social stigma and maintained social networks (Morgan and Hunte, 2008). Only 3% of staff identified early discharge as a benefit of CRHT in a national survey (NAO, 2007). Concerns were raised by healthcare staff that implementing early discharges may result in CRHT being unable to meet the demand for home treatment and that ward staff may become deskilled because people leave hospital earlier in their care (Morgan and Hunte, 2008).

Service users and carers were more likely to be able to influence decisions about admission than discharge; their influence was less if the person was legally detained (Morgan and Hunte, 2008). When given a choice of intervention, two-thirds of service users opted for ambulatory care following a brief hospital stay (Robin et al., 2008) and when asked about preferences, service users expressed a preference for home treatment (Carpenter and Tracy, 2015). Some carers however expressed a preference for hospital care and others asked for an interim option between hospital and home (Morgan and Hunte, 2008) such as acute day hospital care (Morgan et al., 2007).

Health Outcomes

Reported health outcome measures reported included Global Assessment of Functioning (GAF) (Shumway et al., 2010; Desplenter et al., 2010), Brief Psychiatric Rating Scale (BPRS), Schedule for Assessment of Insight-Japanese version (SAI-J) (Kusaka et al 2006). Other health outcomes included rates of suicide, (Shumway et al., 2012) and resolution of the crisis, which was defined as a successful outcome if

the person was discharged from acute care (Kingsford and Webber 2010).

Shumway et al., (2012) hypothesised that shorter hospital stays would result in poorer health outcomes at discharge. Findings showed however, that there were statistically significant increases in GAF scores at discharge and that the suicide rate did not increase. A limitation of this study is that it does not report if there were additional interventions beyond bed reductions that could have had an impact on health outcomes.

Reported improvements in psychiatric symptoms (BPRS) and insight (SAI-J) did not reach statistical significance when length of stay was reduced by a ward critical care path (Kusaka et al., 2006). Kingsford and Webber (2010) found that those who were discharged early had a similar rate of successful outcomes to other types of referral to CRHT. They did however report a statistically significant association between increasing age and unsuccessful outcomes, and a trend, which was not statistically significant, for a higher rate of successful outcome for women than men. Desplenter et al., (2010) reported 1.1% (n=4) deaths in the sample but did not report cause.

Discussion

This rapid review has assessed what is known about early facilitated discharge in acute mental health. Comparison between studies was complex due to international differences in early discharge service design and the range of methodologies included in the review. Methodological weaknesses in the included studies mean that only tentative conclusions can be reached about early discharge in acute mental health. The studies reviewed largely focused on the nature of services and service outcomes and lacked emphasis on recovery or health outcomes as also noted by Hegedus et al., (2017) who suggested that greater emphasis is needed on patient relevant outcomes.

The review located international examples of acute mental health services delivering early discharge interventions to reduce the length of hospital admission. Despite this, not all people admitted to acute mental health wards were considered for, or received, an early discharge intervention. CRHT early discharges were considered for approximately half and provided for approximately one third of people admitted; meeting the target of 20% set by a UK fidelity model (Lloyd-Evans et al., no date).

Other early discharge interventions were available to between one third (Desplenter et al., 2010) and all inpatients (Kusaka et al., 2006).

There is an economic argument for reducing length of hospital stay, yet only one study provided economic data specific to early discharge (Lawn et al., 2008), leaving an incomplete picture of the extent to which early discharge contributes to cost effectiveness in the acute care pathway (National Audit Office, 2007).

The review provided limited accounts of how decisions to discharge early were informed despite policy guidance suggesting that there should be criteria informing both admission and discharge decisions (DH and Crisis Concordat Signatories, 2014). The process used to identify people suited to an early discharge commenced at the point of hospital admission through the CRHT gatekeeping role (NAO, 2007, Crompton and Daniel, 2006) and through screening processes carried out on the wards (Desplenter et al., 2010; Niehaus et al.,2008). Where these screening processes were consistently applied to the majority of people admitted, they increased the number of people discharged early (Morgan et al. 2007) and identified people most likely to benefit from a discharge intervention (Desplenter et al., 2010). The specific factors influencing decisions to discharge early were not always clear however.

CRHT fidelity models suggest that individuals must be experiencing an acute phase of a mental health problem to be screened into an early discharge service (Crompton and Daniel, 2006), yet studies reviewed provided little insight into how acuity was measured. Existing assessments, such as those described by Lloyd-Evans et al., (2017), to establish readiness for early discharge, include measures that when taken together, may provide an estimation of acuity. Mental health triage measures designed to estimate acuity have shown some promise in supporting clinical decisions in emergency departments (Broadbent et al., 2007) and crisis mental health services (Sands et al., 2013) but were not applied to clinical decisions in early discharge.

Early discharges can take place as soon as the ‘reasons for admission’ have been resolved (Desplenter et al., 2010) yet the studies reviewed tended to focus on psychiatric reasons for admission over other psychosocial factors. This is an

important area for development given the links between unstable housing and implementation of early discharges. Post discharge suicide rates have also been shown to be higher for people who experienced adverse life events that were unresolved during hospital admission (NCISH, 2016).

Length of hospital stay and readmission rates were routinely used as an outcome measure related to early discharge. Length of stay was however inconsistently reported across studies; some reported averages based on the number of days between admission and discharge and others report ‘bed days’ where leave of absence days were removed. The role of leave of absence in early discharge was not outlined other than a suggestion that long periods of leave should not be a substitute for early discharges (NAO, 2007).

The reduction in length of stay for those who received an early discharge was small across all studies in the review. This brings into question the efficacy of current models of early discharge facilitation especially in light of similar reductions in length of stay being reported as a result of bed reductions alone in this review (Shumway et al., 2010). The critical care pathway intervention in Japan (Kusaka et al., 2006) showed the largest reduction in length of stay but this may be a reflection of Japan’s significantly longer hospital stays than seen in other parts of the developed world (Niimura et al., 2016).

The review did not clarify what constituted ‘early’ in relation to length of stay. Early discharges were neither associated with a predetermined length of stay, nor a particularly short hospital admission. This may be because decisions to discharge early are based on a number of service and individual factors, not related to the duration of the hospital admission. Examples of factors influencing the odds of receiving an early discharge included levels of acuity, risk, the availability of post-discharge support, living situation and previous history of service use (Tulloch et al., 2015; Gaynes et al., 2010).

Previous patterns of service use, such as a history of long hospital stays on one hand or previous successful home treatment on the other, influenced the likelihood of CRHT early discharge (Tulloch et al., 2015). Whilst it is unclear the extent to which previous patterns of service use can predict early discharge outcomes, Robin et al.,

(2008) found that people who had experienced a shorter initial admission went on to have fewer total bed days over five years. This suggests that people's primary experiences of acute mental health services may influence their future expectations and patterns of hospital admission.

Practitioner level interventions provided as part of early discharge, although not outlined in detail, shared components present in all psychiatric hospital discharges. These included discharge planning (Steffen et al., 2009; Nurjannah et al., 2016) and collaboration between health providers and with non-health agencies such as housing providers (Gaynes et al., 2015), and with the person and their carers (Gerson and Rose, 2012). The need for strategic and long term forward planning for emergency housing may be particularly important for early discharges (Joint Commissioning Panel for Mental Health, 2014) in light of the reported increased use of temporary accommodation (Morgan and Hunte, 2008; Shumway et al., 2012) and barriers to early discharge caused by homelessness and unstable housing (NAO, 2007; Tulloch et al., 2015).

CRHT fidelity measures in the UK include a standard that early discharges take place within 24 hours of the discharge decision for 90% of those identified as ready for discharge (Lloyd-Evans et al., no date). The impact this rapid discharge implementation has on the early discharge planning process is unreported although precipitous or badly planned discharges have been associated with people disengaging from services (Hegedus et al., 2017). For all discharges, increased rates of post discharge suicides are reported for people who did not have a discharge plan (NCISH, 2016). Whilst studies included in this review found no statistically significant association between early discharge and readmission rates (Robin et al., 2008; Shumway et al., 2012; Tulloch et al., 2015), one study suggested that incomplete discharge planning may be a contributory factor for early readmission (Niehaus et al., 2010).

The provision of a bridge between hospital and home was an important aspect of early discharge interventions. Transitional interventions in mental health that provide this 'bridge' have had success in reducing readmission rates but have reported mixed results in terms of other outcomes including quality of life, symptom severity and coping scores (Hegedus et al., 2017). Whilst CRHT models have been

implemented at scale in the UK, other examples of transitional interventions have been less successfully translated into practice (e.g Forchuk et al., 2013). Batscha et al., (2011) concluded that it may be important to identify those for whom a transitional intervention is most likely to be effective, further emphasising the need for screening at the point of admission.

Peer supported early discharge provided a bridge between hospital and home and was valued by service users and carers (Lawn et al., 2008). A systematic review of peer supported interventions in mental health reported that it may support recovery although the evidence overall is not robust enough to recommend peer support as an intervention (Lloyd-Evans et al., 2014). Preliminary studies of peer support have also shown mixed findings with measures of loneliness and hopelessness showing no significant improvement, although general health showed more promising results at three months (Simpson et al., 2014).

Service users favoured ambulatory care or home treatment over hospital admission (Robin et al., 2008; Carpenter and Tracy, 2015). Carers, however, preferred either hospital admission or day hospital care (Carpenter and Tracey, 2010; Morgan and Hunte, 2008; Morgan et al., 2007) suggesting their need for respite. The context of international policies driving shorter hospital stays, alongside greater collaboration with carers and family, points to a need to explore carers' needs, experiences and expertise, especially where the person is discharged before the acute phase has been resolved (Gerson and Rose, 2012). No data were available about those who decline early discharge. Unclear too, was the extent to which people choose their journey through acute mental health care.

Relevance for clinical practice

Screening people at admission to establish their needs at discharge improved access to early discharge interventions. Further evaluation of screening approaches is however required to understand the factors influencing decisions. It is also important that the reasons for admission are understood so that progress towards an early discharge can be measured against these reasons rather than focusing on psychiatric reasons; especially since early discharge can take place before an acute phase of a mental health problem has been resolved.

The collaborations between health services and between health services and housing are particularly important to the delivery of early discharges and although these are policy priorities already, improvements are still needed. The involvement of the person and their family in decisions about discharge were inconsistent in the review yet the availability of family support is an important factor in the delivery of early discharge. Little is known about the needs or experiences of families during an early discharge and this is an area of the intervention in need of further development and evaluation.

Despite limited evidence that peer support is an effective intervention, people ask for it and describe it as helpful. Peer supported early discharge is not routinely available however people describe the availability of peer support on the wards. The development of a peer supported early discharge intervention delivered on the wards may provide a way to meet this need, particularly as part of an integrated early discharge pathway.

Interventions designed to provide a 'bridge' between hospital and home show promise in supporting early discharges but some have struggled to be implemented at scale. This suggests a greater focus is needed on the implementation of interventions that provide this bridge from the perspective of service commissioning and evaluation.

Strengths and limitations

The strength of this review is its specific focus on early discharge in mental health. Whilst the mixed quality of the evidence has led to only tentative conclusions being drawn, the review has provided an insight into areas for development and gaps in the evidence. Publication date limits were also applied. The risk of bias in study selection was minimised by all papers having been double screened to determine their eligibility for inclusion in the review; however, a limitation is that reviewers were not blinded to the authors of the studies that were screened. Further, time and resource constraints meant that whilst it was possible to list the reasons for excluding papers at full-text screening phase in order of frequency of occurrence; numbers are not provided. For the same reasons it was not possible to have two reviewers independently quality appraise and extract data from all included studies. It was also not possible to contact the corresponding authors of the papers included

in the review for further data, where it would have been considered beneficial, or to provide a draft copy of the manuscript in order for all authors of the included papers to have the opportunity to comment on the accuracy of the information.

The synthesis of findings is primarily descriptive and summative and interpretations offered are cautious. In part, interpretations are cautious due to the varied quality of individual papers and therefore the cumulative impact on the overall quality of the body of evidence. Whilst this review sought to use transparent and systematised approaches, there will always remain within this type of mixed methods research the propensity for the subjective perspective and experience of the authors to filter into the data synthesis (Booth et al., 2016).

Conclusion

Early discharge is delivered using a range of service designs internationally. It has a small effect on length of stay and no reported impact on re-admission rates. It is an acceptable intervention to service users and staff but carers' experiences are unclear. Discharge planning and collaborative care are important particularly collaborative relationships between mental health services and housing providers. The impact of early discharge on health and recovery are underreported. Overall, the review found the evidence for early discharge provided a limited picture of the components of an early discharge intervention, its outcomes or people's experiences of it.

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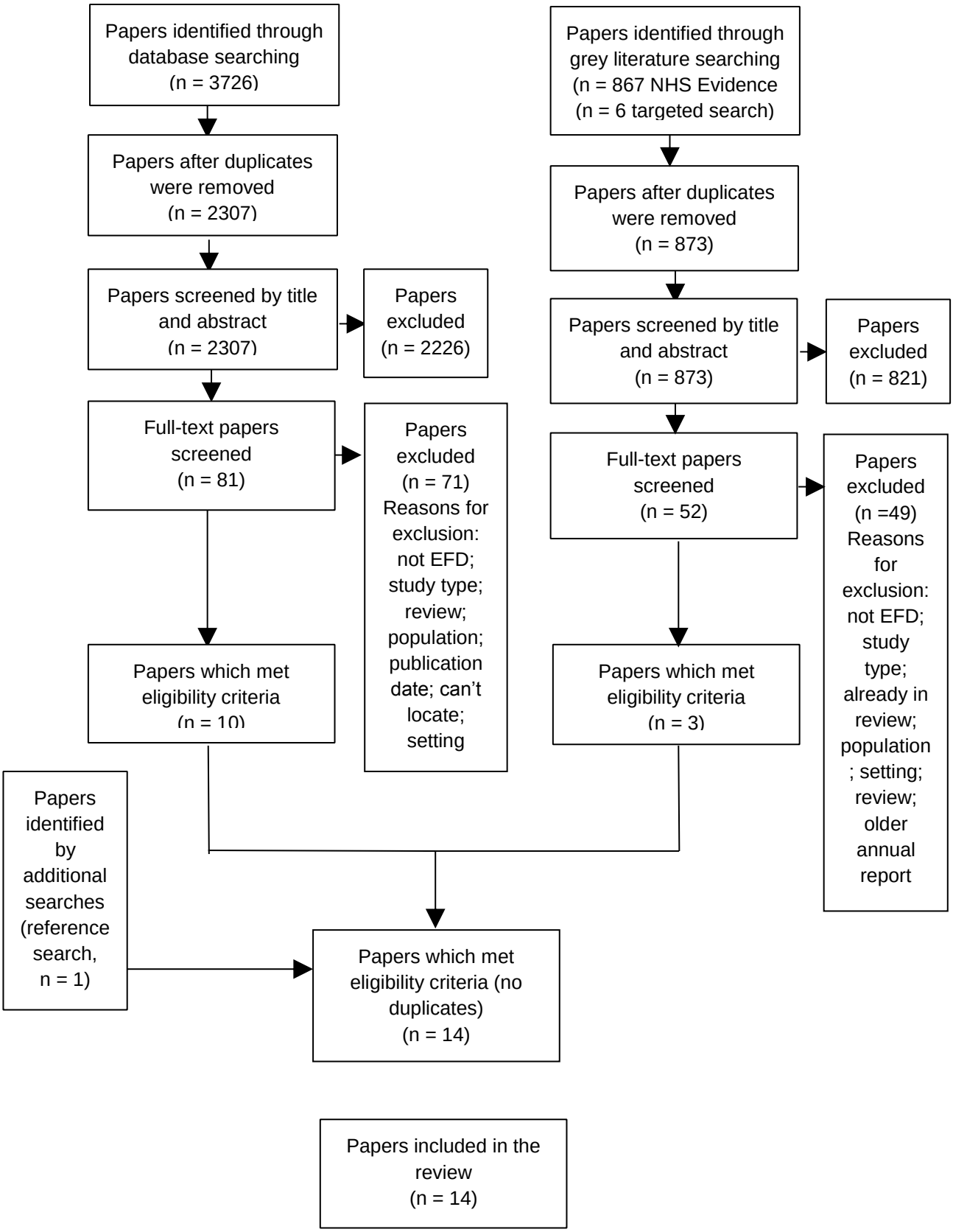
Figure 1 PRISMA flow diagram (Liberati et al., 2009)



970 **Table 1 Summary of included studies**

Author, Year, Location	Design/ methods	Study Aim/ Focus	Sample	Methodological Appraisal (MMAT)
National Audit Office 2007 Morgan et al 2007 Morgan & Hunte 2008 UK	Mixed method national audit: interviews, focus groups and service data	To evaluate CRHT service design and delivery.	Service data from 25 sites delivering CRHT in England 6 focus groups n=25 ward managers	Thematic analysis of qualitative data is not fully outlined. Quantitative methods of data analysis from service data not outlined. Uses retrospective data. No mixed method synthesis.
Carpenter & Tracy 2015 UK	Qualitative semi-structured interviews	To explore the opinions of typical home treatment sample to inform future provision of care and patient relevant outcome markers.	n=10 people with experience of CRHT n=3 of the sample (30%) were early discharges	Not possible to extract data specific to the participants receiving an early discharge. Unclear how the interview schedule was derived. Themes have been informed by the interview schedule as well as the data suggesting a lack of depth of analysis or a lack of data.
Desplenter et al 2010 Belgium	Observational quantitative	Analysis of the profile of people receiving a discharge management intervention.	n=351 patient received discharge intervention	Limited by missing data particularly discharge destination. Not clear if those reported as 'single' were living alone. Lack of control group provides no comparison data. Measurement approach developed through previous survey and literature review reported elsewhere.
Gaynes et al 2015 USA	Qualitative interview study [Systematic review data not included]	Strategies to reduce psychiatric readmissions	n=8 key informants with expertise in the field	Sampling approach based on availability of key informants. Aimed to clarify findings from a systematic review and findings therefore limited as standalone data. Limited data produced, analysis not fully described.
Kingsford & Webber 2010	Historical cohort study	The focus of the study was on the relationship between social deprivation and successful outcomes from CRHT.	n= 260 referrals to one locality CRHT January 2006 to July 2007.	Sampling limited to one geographic area and may not be representative. Reliance on historical data, no control. Relied on accuracy of health data. Some proxy measures drawn from national data used which may not be reliable. Some data grouped for analysis which may have missed some detail in the findings. Some missing data. No follow up of the cohort.
Kusaka et al 2006 Japan	Quasi-experimental service evaluation	To establish if a critical care pathway on acute wards facilitated early discharge or impacted on nursing job satisfaction.	Intervention hospital A- n=200 nurses Control hospital B- n=30 nurses	Naturalistic approach to sampling and selection of study sites resulting in small sample size with some attrition, sample characteristics not clear. Unclear if there is contamination between control and intervention. No blinding or randomisation. Analysis and findings are not clearly reported. Findings should be viewed with caution.
Lawn et al 2008 Australia	Mixed method service evaluation	Evaluate the impact of a pilot peer supported early discharge service	n=41 early discharges Case note data from all referrals to the service between June and August 2006.	Economic analysis is limited by lack of comparator. Evaluation time frame was short and the sample small with no longer term follow-up. Unclear number of carers interviewed. Qualitative data collected from appropriate sources using personal stories, telephone interviews and focus groups but the analysis of these is not outlined leaving the data descriptive and lacking in interpretation. Quantitative data drawn from retrospective records and the sample size is not large enough to draw conclusions.
Niehaus et al 2008 South Africa	Observational quantitative	Evaluation of the impact of crisis discharges on readmission rates in one South African Psychiatric Hospital in 2004	n=438 male inpatients with acute psychosis	Regression analysis does not include diagnostic, demographic or social variables. Some missing data related to hospital readmissions outside study area.
Rhodes & Giles 2014	Qualitative interview	To provide an overview of CRHT services, policies and practices in one region of	n=8 CRHT service managers and team leaders	Unclear how many interviews were conducted and the characteristics of the participants is not reported. The thematic

UK		England To identify the main differences between different CRHT providers/localities	3 sites selected for in-depth interview	analysis was conducted on service summaries by three researchers to increase trustworthiness of findings.
Robin et al 2008 France	Prospective, comparative 5 year cohort study.	Impact of service user choice of three interventions (hospital, brief hospital with ambulatory care, or ambulatory care) on number and length of admissions over 5 years compared to a control group.	All referrals into acute mental health service Jan 1994- Jan 1995 approached for inclusion resulting in; Total sample n= 264 Intervention n=68 (Hospitalised n=15; brief hospital+ ambulatory care n=24; ambulatory care n= 29) Control n=196	Limited by exclusion of people with unstable living situation, homelessness or legally detained. Intervention arm smaller than control. Intervention sample divided across three interventions for analysis, resulting in very small sample sizes for each intervention. Unclear if any of the sample had more than one diagnosis. Long follow up.
Shumway et al 2012 USA	Observational Quantitative (natural experiment)	Test the hypothesis that reductions in acute psychiatric bed capacity are associated with negative impacts on patients and the community.	Pre- intervention- n=8546 admissions Phase 1 post intervention- n= 3069 admissions Phase 2 post intervention- n=4215 admissions	Sample taken from one service and includes only those with no health insurance. Follow up period is short. Interventions used to reduce length of stay not described or measured. Length of stay includes patient stays on acute and sub-acute wards. Outcome measures are not fully reported. Retrospective health data drawn from departmental health records and public data accessed for jail assessments and suicides.
Tulloch et al 2015 UK	Observational quantitative	Four aims: Document the proportion of all home treatment episodes that are facilitated discharges Explore the variables associated with being treated with facilitated discharge Test hypothesis that facilitated discharge would reduce the number of bed days within the admission Test the hypothesis that facilitated discharge would reduce the rate of readmission	Total sample n=7891 Early discharges n=4351	Retrospective data limited by accuracy and completeness of health records. Missing data at discharge. Important variables not included, such as those who decline intervention, dropouts and adverse events. Large sample limited to one city. Sample drawn from datasets held with public research case registers. A second analysis used data from all hospitals stays ending with a discharge from one of the borough general psychiatric wards.

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973 **Table 2 Summary of Population Data**

Author and year	Total sample	Number early discharges	Mean age (Years)	Median age (Years)	Male %	Female %	White %	Non-white %	Psychoses %	‡ Mood and anxiety %	Personality disorders %	Substance use problems %	Other diagnoses %	Living alone %
Carpenter & Tracy 2015	n=10	n=3	Sample- 42 EFD- 45	Sample- 46 EFD- 53	Sample-40 EFD- 33	Sample-60 EFD- 66			Sample- 50 EFD- 33	Sample- 20 EFD- 66	Sample- 20 EFD- 0	Sample- 10 EFD- 0		
Despl enter et al 2010	n=1306	n=351		45.4	54	46			17.6	23.6	6.5	34.2	16.1	Living with others 48.5
Kingsford & Webber 2010	n=260	n=65	41.94		44.6	55.4	75.4	6.9						22.3
Lawn et al 2008	n=49	n=41		36.5	26.5	73.5			73 †					59.2
Niehaus et al 2010	n=438	n=180	32.9		100%				54.7	15.3		38.9 (comorbid)		77
Robin et al 2008	Total n=264 Interventions n=68 Control n=196	n=24 (brief hospital + ambulatory care)	Intervention 37.8 Control 40.4		Gender ratio m/f intervention 1.0 Control 0.78.				Intervention 17.8 Control 20.4	Intervention 25.8 Control 19.9	Intervention 25.8 Control 34.7	Intervention 22.6 Control 13.8	Intervention 6.8 Control 12.4	Intervention 13 Control 17.3
Shumway et al 2012	Pre-test n=8546 Post test 1 n= 3069 Post test 2 n= 4215		41			34								
Tulloch et al 2015	n=7891	n=4351	39.1		56	44	51	37	54	25 (common MH problem)	6	11	5	

No population data provided in Gaynes et al., 2015; Kusaka et al, 2006; Morgan et al 2007; Morgan & Hunte 2008; National Audit Office 2007; Rhodes & Giles, 2014

† Unspecified number had more than one diagnosis, ‡ includes bipolar disorder.

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976 **Table 3 Summary of study outcomes and findings**

Author, year	Outcome Measure & Tool	Findings
National Audit Office 2007 Morgan et al 2007 Morgan & Hunte 2008	National evaluation of CRHT against UK published CRHT standards	Estimated that 40% of inpatients are discharged earlier due to CRHT involvement. CRHT are likely to be involved in discharge decisions for half of all inpatients. Some discrepancies in the communication of discharge data between CRHT and wards. There may be increased pressure on carers when people are treated at home, most people prefer home treatment but some ask for an interim option such as day hospital. Decisions involved person and their carer in 81% of cases although this was less for people legally detained and was more focused on admission than discharge. CRHT increased choice, decreased stigma but may struggle to meet demands. There were concerns that ward staff may experience skills attrition. Economic review estimated a £600 cost saving per referral due to CRHT, not attributed to early discharge.
Carpenter & Tracy 2015	Thematic analysis of 10 transcribed semi-structured interviews of between 10 and 50 minutes using a 13 item interview schedule.	Choice of time for visits and consistency in staff visiting and their approach were helpful. Having someone to talk to across 24 hours was useful although some staff were too focused on the here and now and medication with little attention to the causes of the crisis. Most preferred home treatment to hospital although some noted the lack of peer support that was available in hospital.
Desplenter et al 2010	Demographic and diagnostic profile of those receiving a discharge intervention. Description of discharge management process including screening, meetings and discharge date.	Missing data on discharge destination in 27.8% of the sample. 91.3% of people screened for risks in the discharge process at admission and 26.9% received a discharge intervention. GAF scores showed that people with highest impairment and lowest functioning were screening into the intervention. Collaborative discharge planning between person, caregiver, hospital and other agencies improved the discharge process. The discharge plan should be initiated at admission and the person should be discharged as soon as the reason for admission is resolved.
Gaynes et al 2015	Summary of group interviews with key informants related to findings from a systematic review.	Early discharges rely on longer term planning and the availability of services. Unstable home situation is linked to longer hospital stay and readmission. People with lower socioeconomic status, living in poverty, uninsured or homeless have shorter hospital stays and multiple admissions. Longer hospital stays are associated with job and housing loss.
Kingsford et al 2010	Primary outcomes are successful CRHT defined by referral/discharge back to community team and unsuccessful outcomes defined by hospital admission from CRHT or within 28 days of discharge from CRHT and readmissions within 28 days to CRHT.	The percentage of successful CRHT outcomes for early discharge were similar to intake and out-of-hours services, this was grouped for analysis and labelled 'non-enhanced' intervention. Social deprivation was associated with 'enhanced' intervention group and so conclusion drawn that living in the most deprived areas decreased the odds of receiving any 'non-enhanced' intervention. Statistically significant association between increasing age and unsuccessful CRHT outcomes. Non- significant trend towards women to have more successful outcomes than men.
Kusaka et al 2006	Brief Psychiatric Rating Scale Standard Assessment of Insight-Japanese version Job Satisfaction Length of hospital stay	Large reductions in average length of stay noted in the intervention and smaller reductions in the control. Outcomes from BPRS and SAI-J are reported as neurological symptoms which are reported to have improved over time but do not reach statistical significance. Job satisfaction improved for nurses in the intervention.
Lawn et al 2008	Self reported service user and carer experience Admission, re-admission and rates of early	300 bed days were saved across the duration of the pilot. Service users and carers reported positive experiences of

	discharge Bed days saved and service costs Peer worker self reported experience and feedback	the service. Professionals reported positive experiences of the service. Peer support workers reported positive experiences of the role as well as to their own wellbeing.
Niehaus et al 2008	Crisis discharges, length of stay and time to readmission were the main predictors. Demographic and diagnostic characteristics	Crisis discharges are only used when the wards are full and there are referrals waiting for admission. Mean LOS for all patients 43.9 days, crisis discharges 40.6 days and usual discharges 46.4 days. Crisis discharges were more likely to be readmitted (45%) than usual discharge (31%) and the time to readmission was shorter for the crisis discharge (628 days) and usual discharge (688 days).
Rhodes & Giles 2014	Phase 1: the configuration of the service; policies and practices; team composition; services provided; clinical assessments; and how caseloads, gatekeeping and referral pathways are managed. Phase 2: identity and purpose; gatekeeping; early discharge; out-of-hours cover; referrals; role of psychiatrist; risk assessment and management; multidisciplinary working, relationships with other parts of the service; care plans and care coordination; confidentiality; serious untoward incidents and safety issues.	Team tensions and differences in working models cause delays in the discharge pathway. Different teams disagreed about levels of risk causing delays. Early discharges were sometimes difficult to achieve because of blocks in the pathway. This was because of difficulties discharging from CRHT to CMHT but also because of a lack of beds on acute wards. Identified successful models are built on collaboration and mutual trust between wards, CRHT and CMHT teams.
Robin et al 2008	Demographic characteristics Diagnosis Admission status during first 4 days from referral into the service Cumulative bed days prospectively over 5 years	The intervention group (n=68) had shorter hospital stays at first contact, and short re-admissions of less than 7 days were double that of the control. Overall, receiving the intervention resulted in fewer days in hospital over 5 years than the control. Findings did not reveal which patients benefitted from the intervention based on demographic and diagnostic data.
Shumway et al 2012	Global Assessment of Functioning (GAF) Length of stay Readmission rates Ward days closed to admissions Suicide rates Jail assessments Discharge destination	Bed reductions had no effect on readmission rates, length of stay reduced, number of days ward closed to admissions reduced, the number of discharges stayed stable over time and improvement in GAF scores reported between admission and discharge. There were increases in referrals to state hospitals, hotels and shelters.
Tulloch et al 2015	Associations of being treated with facilitated discharge against 14 demographic, admission and diagnostic variables, with receipt of facilitated discharge as the outcome measure. Effects of facilitated discharge on readmission Effect of facilitated discharge on bed days.	Half of all inpatients were considered for facilitated discharge and 29% were discharged early. Of these, 51.6% were discharged the same or next day, this accounted for 36% of home treatment activity related to 12179 episodes. Length of stay was reduced by 4 days and with no difference in readmission rates between those who received an intervention and those who did not. When compared to schizophrenia, those with personality disorder or drug and alcohol problems were half as likely to receive a facilitated discharge. Modestly lower odds of facilitated discharge were reported for men, non-psychotic disorders, previous long hospital stay, previous discharge to community team (CMHT), discharge to care home. HONOS scores with modestly lower odds of facilitated discharge are drug and alcohol problems, problems with living conditions, relationships and physical health. Modestly higher odds of receiving a facilitated discharge were reported for people with bipolar disorder or mania, home treated in previous 2 years, married, separated or divorced and HONOS scores showing hallucinations, delusions, depression and self harm.

Appendix 1: Search strategy

The searches have been written up for MEDLINE using the EBSCO interface and are detailed below.

Explanation of search terms used: ti = title field; ab = abstract field; / = MeSH; exp. = explode MeSH; asterisk = denotes any character; "" = phrase search; N4 = adjacency within four words.

1. earl* N4 discharg*.ti,ab
2. expedit* N4 discharg*.ti,ab
3. facilitat* N4 discharg*.ti,ab
4. assisted N4 discharg*.ti,ab
5. accelerat* N4 discharg*.ti,ab
6. support* N4 discharg*.ti,ab
7. home* N3 treat*.ti,ab
8. crisis* N3 treat*.ti,ab
9. "crisis resolution".ti,ab
10. home care services/
11. or/1-10

12. ward*.ti,ab
13. hospital*.ti,ab
14. acute N3 care.ti,ab
15. "secondary care".ti,ab
16. "mental health trust*".ti,ab
17. inpatient*.ti,ab
18. in-patient*.ti,ab
19. hospital units/
20. patients rooms/
21. hospitals/
22. hospitals, psychiatric/
23. secondary care/
24. secondary care centers/
25. inpatients/
26. or/12-25

27. "mental health".ti,ab
28. "mental illness".ti,ab
29. "mentally ill".ti,ab
30. "mental disorder*".ti,ab
31. "mental wellbeing".ti,ab
32. "mental well-being".ti,ab
33. "mental ill health".ti,ab
34. "mental ill-health".ti,ab
35. psychiatr*.ti,ab
36. psycholog*.ti,ab
37. mental health/
38. mental health services/

39. exp. mental disorders/
40. geriatric psychiatry/
41. psychology/
42. psychology, clinical/
43. or/27-42

44. 11 and 26 and 43
45. 01/01/2006-31/03/2016

Appendix 2: list of items used in data extraction tool

Study details
1. First author
2. Year
3. Study type
4. Study design
5. Study aims
6. Any further research questions addressed
7. Location of study, country & city
8. Study date and duration
9. Methods of data collection
10. Analysis used
11. Strengths/limitations of study
Service design
12. Aim/purpose of service
13. Staffing and staffing configuration
14. How service delivered in the service infrastructure
15. Service innovations and barriers
Patient population data - indicate with asterisk if data is aggregated
16. Age at admission
17. Gender
18. Ethnicity
19. Marital status
20. Dependent children
21. Housing situation
22. Employment status
23. Reasons for admission/primary presenting problem/diagnosis
24. Clustering tool outcome
Intervention/s
25. Descriptions of the interventions delivered as part of early discharge
26. Who delivered the interventions part of early discharge
27. Outcomes measures used related to the interventions above
28. Details of outcomes/findings related to the interventions above
Admission/discharge process
29. Source of admission
30. Legal status of the person during admission and discharge
31. Total numbers of admissions and discharges not associated with early discharge
32. Length of stay for early discharge patients as compared to non early discharge
33. Length of stay adjusted to exclude leave of absence
34. Number of patients considered for early discharge
35. Number of patients receiving early discharge intervention
36. Number of days between referral for consideration for early discharge and early discharge
37. Bed days between acceptance to early discharge and early discharge
38. Total number of patients who experienced delayed early discharge
39. Number of bed days of delay in early discharge
40. Reasons why early discharge was delayed

41. Early discharge destination (e.g. home, new accommodation, supported care)
Recovery outcomes post early discharge
42. Symptom management/improvement in mental health
43. Quality of Life
44. Physical wellbeing (e.g. BMI, smoking)
45. Social functioning (e.g. parenting, family, relationships, employment, housing, and finance)
46. Safety/risk
47. Psychological (e.g. self-esteem, mood, motivation, insight, behaviour)
48. Standard recovery measures (e.g. HONOS)
Adverse events post early discharge
49. Suicide attempts and self-harm
50. Completed suicide or death by other cause
51. Criminal behaviour resulting in custody
52. Violence and aggression (reported by carers or professionals, police involvement)
53. Readmission within 28/30 days
54. Loss of contact with services
Experience and acceptability of the early discharge intervention
55. Informal carer/family member views and experiences of early discharge
56. Professional and support staff views and experiences of early discharge
57. Patient reported experience of early discharge
Economic evaluation
58. Costs associated with early discharge
59. Costs of early discharge compared to conventional longer stay
60. Costs compared to other forms of crisis care
Theory development
61. Theoretical frameworks/concept models proposed or discussed
Further relevant data
62.

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