



## Residential mobility among patients admitted to acute psychiatric wards

Alex D. Tulloch<sup>a,\*</sup>, Paul Fearon<sup>a,b,1</sup>, Anthony S. David<sup>a,2</sup>

<sup>a</sup> King's College London, King's Health Partners, Institute of Psychiatry, De Crespigny Park, London SE5 8AF, UK

<sup>b</sup> Trinity College Dublin and St Patrick's University Hospital Dublin, James's Street, Dublin 8, Ireland

### ARTICLE INFO

#### Article history:

Received 25 November 2010

Received in revised form

20 April 2011

Accepted 8 May 2011

Available online 14 May 2011

#### Keywords:

Residential mobility

Mental disorders

Psychiatric hospitals

Homeless persons

### ABSTRACT

Residential mobility among those with mental disorders is consistently associated with hospital admission. We studied 4485 psychiatric admissions in South London, aiming to describe the prevalence, timing and associations of residential moves occurring in association with admission. Moves tended to cluster around discharge; 15% of inpatients moved during admission or up to 28 days after discharge. The strongest associations were with younger age (especially 16–25 years) and homelessness. Unadjusted effects of gender, marital status and previous service use were mediated by homelessness. Possible mechanisms for the associations with homelessness and younger age are discussed.

© 2011 Elsevier Ltd. All rights reserved.

### 1. Background

In contrast with the voluminous literature on mobility in the general population (Rossi, 1980; Cadwallader, 1992; Clark and Dieleman, 1996; Dieleman and Mulder, 2002), only a small number of studies have used multivariable techniques to investigate the associations of residential mobility among individuals with mental disorders (Appleby and Desai, 1987; Caton and Goldstein, 1984; DeVerteuil et al., 2007; Lamont et al., 2000; Lix et al., 2006, 2007; McCarthy et al., 2007; Tulloch et al., 2010). Interestingly, the most consistent finding in this small literature has no counterpart in the general population literature: all but one (Lamont et al., 2000) of these eight analyses found some association between hospital admission and mobility. We aimed to explore this finding further. In particular, we aimed to determine whether presence on a psychiatric ward in fact defines a *place* and a *time* at which mobility from one residential environment to another is likely to occur, analogously to the way in which homeless shelter stays may interspace longer periods of institutional residence (Hopper et al., 1997). This is a point that remains unclear: previous studies of residential mobility in this population have used data that did not specify dates of mobility together with dates of admission and discharge, and the association with mobility has been demonstrated only over the medium- to long-term, rendering it prone to conflicting interpretation.

For example, Appleby and Desai (1987) suggested that residential mobility (or “residential instability”) was in effect an indirect cause of psychiatric admission. This seems to imply that a high level of residential mobility (including frank homelessness) would tend to precede admission, if not necessarily immediately: ‘Patients who measured very low on residential instability would be seen as generally maintaining enduring and consistent ties to some form of supportive environment and might be thought to have more favourable psychiatric outcomes. As events change and instability increases in living situations, outcomes would be more unpredictable, though probably less favourable; social supports decrease, alienation increases, hospitalizations rise’ (Appleby and Desai, 1987, pp. 516–517).

Other authors, however, suggest precisely the kind of direct association between presence in a psychiatric hospital and residential mobility postulated above, and the concrete mechanisms they suggest specifically imply a pattern of *inpatient-associated* residential mobility in which mobility would tend to occur at or around the time of hospital discharge. Caton and Goldstein (1984), who analysed repeated cross-sectional data for a cohort of hospital discharges, concluded that “housing change” occurred after repeated (or “revolving door”) admission. They considered that ‘[p]atients may not want to return to stressful home environments after a rehospitalization episode, or may not be welcome in such settings. Further, the experience of rehospitalization often leads to the loss of an apartment lease of a welfare hotel room, requiring a new housing placement at discharge from hospital’ (Caton and Goldstein, 1984, p. 763). This last point is echoed by Lamont et al. (2000), who asserted that ‘[p]atients with severe mental illness are often evicted at the point of admission and therefore have a geographical move forced on them at the time of discharge’ (p. 168); they also note that a prolonged

\* Corresponding author. Tel.: +44 7941 861760.

E-mail addresses: alex.tulloch@kcl.ac.uk (A.D. Tulloch),  
pfearon@tcd.ie (P. Fearon), anthony.david@kcl.ac.uk (A.S. David).

<sup>1</sup> Tel.: +353 1 249 3612.

<sup>2</sup> Tel.: +44 20 7848 0138; fax: +44 20 7848 0572.

absence from an address due to hospital admission may itself lead to repossession and a need for rehousing. A similar relationship between housing and discharge is postulated by the literature on “delayed discharge”, in which length of stay (LOS) is considered to have been prolonged beyond that required by some non-medical factor. Prevalence surveys of all forms of delayed discharge in the United Kingdom (Fulop et al., 1992, 1996; Shepherd et al., 1997) have found that it is frequently attributed to a perceived need to await housing before discharge, leading in effect to an antecedent effect of residential mobility on LOS and a termination of the admission at the point at which residential mobility occurs.

All of the above authors also suggest that there are effects of homelessness on residential mobility among inpatients. As noted above, Appleby and Desai (1987) imply that homelessness (which they consider as a form of high “residential instability”) would tend to precede admission, if not necessarily immediately. They also note (not specifically in relation to hospital admission) that homelessness is often followed by the acquisition of a fixed address. The other interpretations above suggest still more strongly that homelessness among inpatients may be part of the process of residential mobility. Therefore, homelessness should be considered as a potentially important association of residential mobility and also as a potential mediator of indirect effects of other variables on residential mobility. Homelessness is reported by a significant minority of those admitted to psychiatric hospital in both the UK (Koffman and Fulop, 1999) and the US (Appleby and Desai, 1985; Herman et al., 1998; Mowbray et al., 1987; Rosenheck and Seibyl, 1998; Susser et al., 1991). There are few data describing when such homelessness starts, but it seems unlikely that all cases are long-standing at the point of admission: homelessness may also arise shortly before admission (Herzberg, 1987), and causes of eviction and repossession at or during admission were noted above (Lamont et al., 2000). Two of the studies of residential mobility cited above estimated the effect of homelessness and found that it was associated with mobility, although these studies were of course not restricted to inpatients and neither reported the extent to which other variable effects were or were not mediated by homelessness (Appleby and Desai, 1987; McCarthy et al., 2007).

A practical difficulty in studying residential mobility in clinical populations may be that available health datasets do not include adequate address data (DeVerteuil et al., 2007; Larson et al., 2004). As noted above, there is the further requirement in the present case to use data that relate dates of mobility to dates of admission and discharge from hospital. Fortunately, the period around admission is a time when address data would be expected to be subject to less interval censoring of residential mobility than during periods of community residence, when treatment by mental health services may be intermittent. We were able to make use of an anonymised repository of electronic patient records that preserves dates resident in a particular Office of National Statistics Output Area for those with a valid address, and dates of homeless periods, as well as clinical, demographic and service use data. We aimed to describe the timing, prevalence and associations of residential mobility around the period of admission to inpatient mental health services, and to test the hypothesis that other associations with this postulated inpatient-associated residential mobility are attributable to confounding by homelessness.

## 2. Methods

Data were taken from the Case Register maintained by the NIHR Specialist Biomedical Research Centre for Mental Health. This repository is a copy of the South London and Maudsley NHS Foundation Trust’s paperless electronic patient record database, anonymised and optimised for data extraction (Stewart et al.,

2009). All activity since 2006 is covered, with some earlier data. All analysis was performed using Stata 10.

### 2.1. Sample definition

We extracted all admissions that culminated in a discharge between 31st December 2007 and 31st December 2009 and for which the first ward was one of the adult psychiatric wards serving the London Boroughs of Croydon, Lambeth, Lewisham and Southwark. These four boroughs cover a population of approximately 1.1 million people, mainly living in inner-city areas. The admission wards concerned are general adult wards and psychiatric intensive care units that overwhelmingly serve patients aged 18–65. Some patients had more than one discharge in the study period. In these cases, the most recent admission only was selected. (The use of a multi-level dataset with multiple admissions per person would have invalidated the approach used for missing data.) Contiguous periods on different wards were concatenated, but periods separated by one day or more out of hospital were treated as separate admissions. Periods of ward leave were disregarded.

### 2.2. Non-housing data

Non-housing data merged with these were age, sex, ethnicity, marital status, employment status, primary diagnosis recorded nearest to the date of discharge, lifetime drug and alcohol misuse, Mental Health Act status, longest admission leading to a discharge in the preceding two years, having no admission in the preceding two years, having a psychiatric intensive care unit admission in the preceding two years and the set of Health of the Nation Outcome Scales (HoNOS; Wing et al., 1998) ratings recorded nearest to the date of admission, excluding scores made more than 3 days before or 21 days after admission and post-discharge scores. In order to reduce computing time for multiple imputation, HoNOS item scores were recoded as dichotomous variables (0–1 “low” versus 2–4 “high”) with the exception of HoNOS item 11 (problems with living conditions) which was retained as a five level categorical variable.

## 3. Address data

All addresses in use before, during or after the admission were merged with the admission data. In the source database, each address record consists of the address, postcode, a start date and an end date. Homeless periods are represented in the clinical system by a mock postcode and the phrase “No fixed abode” in place of the usual address details. As an anonymised data repository, the Case Register does not include full address and postcode information. Instead, postcodes in the source database are grouped into the corresponding Output Area using the lookup file provided by the Office of National Statistics, supplemented with a lookup for the mock postcode used to represent “No Fixed Abode”. Output Areas contain approximately 100 households so their use will only fail to detect changes of address if these are within a very small area. As detection of homeless periods using the method above depends on the entry of a specific mock postcode, housing data were supplemented by an automated search of the progress notes entered during the relevant admission looking for the strings “no fixed abode” and “homeless” and correcting records where necessary.

### 3.1. Residential variables

These address spells were used in three ways. First, the timing of any residential moves relative to admission and discharge were

Download English Version:

<https://daneshyari.com/en/article/1048692>

Download Persian Version:

<https://daneshyari.com/article/1048692>

[Daneshyari.com](https://daneshyari.com)