

Housing and Society



ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/rhas20

Examining tenancy duration and exit patterns in a single-site, mixed-tenure Permanent Supportive Housing setting

Sarah Taylor & Guy Johnson

To cite this article: Sarah Taylor & Guy Johnson (2021): Examining tenancy duration and exit patterns in a single-site, mixed-tenure Permanent Supportive Housing setting, Housing and Society, DOI: 10.1080/08882746.2021.2009734

To link to this article: https://doi.org/10.1080/08882746.2021.2009734



Published online: 06 Dec 2021.



🖉 Submit your article to this journal 🗗



View related articles



Uiew Crossmark data 🗹



Check for updates

Examining tenancy duration and exit patterns in a single-site, mixed-tenure Permanent Supportive Housing setting

Sarah Taylor and Guy Johnson

Unison Housing Research Lab, RMIT University, Melbourne, Australia

ABSTRACT

Permanent Supportive Housing (PSH) is recognized as an effective intervention for individuals who have experienced chronic homelessness. However, evidence of its efficacy mostly comes from scattered-site PSH. This paper investigates tenancy duration and exit patterns in a single-site, mixed-tenure PSH setting, drawing on nine years of tenancy administration data from a site in Melbourne, Australia. Our methodology combines survival and hazard analyses of tenancy records with analysis of exit reasons. We estimate that the probability of sustaining a tenancy to two years is 50% for supported tenancies and 46% for affordable tenancies. We find that of tenancies that exit, over two-thirds do so in unfavorable circumstances, and these tenancies are shorter than those that exit in favorable circumstances. We find some tenant attributes (including age and psychiatric disability) are predictors of longer tenancies, but tenancies started earlier in the site's history were more likely to exit early. We argue that it is vital to acknowledge that people do exit PSH and to develop effective policy and practice responses to raise tenancy durations where practicable, and ensure that more people who leave do so in favorable circumstances.

ARTICLE HISTORY

Received 21 May 2021 Accepted 19 November 2021

KEYWORDS

Permanent Supportive Housing; single-site; mixedtenure; tenancy duration; social housing

INTRODUCTION

In 2008, the Australian Government provided new funding for evidence-based models to end homelessness (FaHCSIA, 2008). One approach that received support was Permanent Supportive Housing (PSH), an approach that provides permanent, affordable housing to people who have experienced chronic homelessness, with few conditional requirements to participate in rehabilitative activities. The adoption of PSH was not surprising. Across the western world, PSH approaches have emerged as the preferred response to those experiencing long-term homelessness with high support needs, and for good reason. Studies consistently report between 70% and 85% of PSH participants retain their housing after 12–24 months, typically double the rates reported by standard approaches (Goering et al., 2014; Gulcur et al., 2003; Padgett et al., 2006; Tsemberis & Eisenberg, 2000).

However, the high rates of housing retention come mostly from studies of models that house people in units scattered throughout the community. The alternate spatial configuration, single-site PSH, delivers housing and support services in a single apartment complex.

CONTACT Sarah Taylor 🖾 sarah.taylor@rmit.edu.au 🗈 Unison Housing Research Lab, RMIT University, Melbourne, Australia

© 2021 Housing Education and Research Association

2 😔 S. TAYLOR AND G. JOHNSON

Single-site PSH can be delivered with all tenancies receiving support, or as mixed-tenure sites that include people with histories of chronic homelessness, as well as low need individuals with low-income employment. Common Ground is a prominent example of a single-site, mixed-tenure PSH model, and is the subject of this paper. Single-site, mixed-tenure PSH approaches like Common Ground have proven to be popular with policymakers and service providers in Australia, but it is unclear if their housing outcomes mirror those reported in scattered-site PSH. Further, while the experiences and outcomes of single-site PSH have been investigated for current tenants (Bullen et al., 2016; Parsell et al., Parsell, et al., 2015b, 2015a; Stahl et al., 2016), the circumstances and timing of departures have not been adequately explored.

The present study aims to contribute to the modest empirical literature on housing retention in single-site, mixed-tenure PSH by addressing three research questions: (1) How long do people reside in a single-site, mixed-tenure PSH facility? (2) Among those that leave, do they depart in favorable or unfavorable circumstances? And, (3) are the characteristics of short duration tenancies different from tenancies that last longer? Answers to these questions will help policymakers and service providers to identify and better assist tenancies more likely to experience an early and/or unfavorable departure, and to assess how outcomes at one site compare to others.

The paper starts by reviewing PSH and its different configurations, then describes the study site and studies that examine housing retention in PSH. We then investigate the three questions using tenancy administration records drawn from a Common Ground facility in Melbourne. The paper finishes with a discussion of the policy and practice implications of our findings.

BACKGROUND

Permanent Supportive Housing

The Australian Bureau of Statistics classified 116,427 people as homeless on census night in 2016, up from 102,429 in 2011 (Australian Bureau of Statistics, 2012, 2018). Across Australia approximately 1,500 Specialist Homelessness Services are funded to assist people experiencing or at risk of homelessness. In 2019-20 over 290,000 households were assisted (Australian Institute of Health and Welfare, 2020). The standard way of delivering services is through time-limited service interventions, such as crisis and transitional housing, with case management the most common support model. In the standard approach households are expected to "graduate" to either the next step in a continuum of services or to other permanent accommodation such as private rental or social housing. This is often referred to as a "staircase" or "continuum of care" model (Johnsen & Teixeira, 2010). Time-limited housing programs are typically guided by a "housing ready" philosophy that assumes there are skills and attributes a person who has experienced homelessness needs to acquire before they can manage a tenancy (Keast et al., 2011, p. 5). PSH reverses this approach. PSH, which combines permanent affordable housing with voluntary, community-based support services, directly provides people with a permanent place to live, and support to maintain it. For PSH, success is not defined by graduating to other housing.

PSH has been implemented in two distinct spatial configurations. Drawing on the original Housing First format, some models emphasize the importance of ordinary housing scattered through the community, comprising no more than 20% of units in any building (Stefancic et al., 2013, p. 246). Scattered-site projects are favored by some as a more appropriate PSH configuration for two reasons. First, that housing scattered throughout the community better reflects consumer preferences for normal housing that is indistinguishable from housing other citizens live in (Tsemberis, 1999). Second, that scattered-site housing facilitates the goal of community integration (Tsemberis, 1999).

In contrast, single-site PSH models offer units in a single complex where supportive services and case management are centrally delivered. While single-site and scattered-site PSH models both combine permanent accommodation with support, the different spatial configurations bring differences in "service provision, geographic location, and community structure" (Collins et al., 2013, p. 269). The characteristics of single-site housing can be experienced both positively and negatively. For example, proximity to others can address the isolation reported in some studies of scattered-site PSH (Padgett, 2007) but may also heighten potential for conflict (Parsell et al., Parsell, et al., 2015b; Stahl et al., 2016). Current research suggests the different spatial configurations of PSH present a series of trade-offs for residents: community or independence, security or normality, service accessibility or community integration (Homelessness Policy Research Institute, 2019; Miterko & Bruna, 2021; Montgomery et al., 2020; Parsell & Moutou, 2014; Tiderington, 2021). These tradeoffs also apply to project implementation. Padgett (2012) argues that governments and philanthropists "overwhelmingly" prefer to fund single-site supported housing projects because the buildings present visible and tangible outputs, in contrast to the "invisibility" of scattered-site configurations. However, single-site housing facilities can face greater hurdles, and consequent delays and costs, from zoning requirements and NIMBY (Not In My Backyard) activism. Chen (2019) notes that PSH configuration has varied in US cities according to differing political pressures: in some cities such as Austin, strong NIMBY sentiment made scattered-site easier to implement, in others such as Los Angeles the magnitude of visible homelessness, combined with limited housing stock, meant that a mix of configurations was expedient.

Single-site, mixed-tenure PSH, and study site

Single-site, mixed-tenure PSH models incorporate a mix of residents, not all of whom have high support needs or a history of chronic homelessness. In this paper, we examine a single-site, mixed-tenure PSH development in Melbourne, known as Elizabeth Street Common Ground (ESCG), which commenced operation in September 2010. The Common Ground PSH model was developed in New York in the 1990s and now operates in many other US cities, and other countries. In Australia, the two dominant forms of PSH are scattered-site and the Common Ground model, which has attracted "significant philan-thropy and private donations" (Parsell & Moutou, 2014, p. 4). The first Australian Common Ground facilities around the country.

ESCG is a purpose built 10 storey building with 131 self-contained, single-occupancy apartments, each with their own bathroom and kitchenette. ESCG is located close to the Melbourne Central Business District. It has a single front entry at street level that

4 👄 S. TAYLOR AND G. JOHNSON

features a 24 hour a day concierge. As with other Common Ground sites, the concierge system is included "to ensure a welcoming but controlled access to the building" (Common Ground Queensland, n.d.). The building includes a communal commercial kitchen, arts space, reading room, and rooftop garden, which are available to all residents. The building is owned by a social housing provider that provides on-site tenancy management services.

Although not without its critics (Capp et al., 2021), mixed-tenure approaches are a prominent principle in contemporary Australian social housing policy (Atkinson, 2008; Groenhart et al., 2014), and it is also a core aspect of the Common Ground model (Mercy Foundation, 2014). Approximately half of the 131 units at ESCG are allocated to individuals that have experienced chronic homelessness, referred to as *supported tenancies*. All supported tenancies have access to on-site medical and health support, as well as on-site case management support 24 hours a day, seven days a week. The services are noncompulsory. Access to drug and alcohol services, trauma counseling and other services often needed by people who have experienced chronic homelessness are not available on-site, but support workers arrange referrals to these services.

Tenants in supported tenancies are selected by the agency providing on-site casemanagement support. Eligibility is based on a broad range of factors including receiving a government pension, a history of protracted homelessness, vulnerability to harm and exploitation, and the presence of disabling conditions such as poor mental health, drug and/or alcohol dependency or chronic health problems, and the capacity to live in a high-density environment. Eligibility criteria remained consistent since 2012. However, between 2010 and 2012 the Department of Justice had direct access to 15 supported units for people exiting prison that had a history of housing instability.

The remaining units are allocated to low need individuals with low-income employment. These are referred to as *affordable tenancies*. Affordable tenancies are a core component of the Common Ground model, included both for financial viability and their purported role in on-site community. Affordable tenancies pay 70% of market rent, up to a maximum of 30% of their income. To be eligible for affordable housing individuals have to be single, 18 years of age or older, and working but earning less than \$53k a year. The selection process for affordable tenancies is managed by the housing provider, and has not changed since the inception of ESCG. Once in an affordable tenancy, if a tenant's employment status changes the rent will be adjusted to social housing levels, but the tenancy is still classed as an affordable tenancy. Affordable and supported tenancies are offered identical styles of apartment scattered throughout the building.

Thus, at ESCG two different populations of tenants live in the same apartment building, in similar apartments, with some shared facilities. These features are common across other Common Ground facilities, as set out by the Australian Common Ground Alliance (Parsell et al., 2014). The core features of the Common Ground model – mixed-tenure, concierge, and security – have been investigated with input from current tenants (Parsell et al., Parsell, et al., 2015b). However, little is known about longer-term tenancy patterns in Common Ground (Parsell et al., 2014). A key problem is that current tenancies offer a particular perspective on tenancy retention and exit patterns: describing only the people who have not exited.

Assessing housing retention in PSH

Multiple studies indicate scattered-site PSH produce better housing outcomes than traditional "staircase" approaches (Kertesz & Johnson, 2017). In spite of its popularity with policymakers, the evidence for single-site, mixed-tenure PSH is limited.

In Australia, three studies have examined housing retention at Common Ground facilities. In New South Wales, Bullen et al. (2016) found that 63% of tenants remained after 28 months, with modest differences between affordable and supported tenancies. In Queensland, Parsell et al. (2015a) reported 68% retention after 32 months, with once again, little difference between supported and affordable tenancies. An evaluation of the Victorian Common Ground facility, the same site under investigation in this paper, reported a tenancy retention rate of 56% at 22 months (McDermott et al., 2013), although the study focused only on supported tenancies.

Although these housing retention rates are at the lower end of results reported in scattered-site PSH studies, housing retention rates are not always comparable. In scattered-site PSH, formal support is tied to the individual, and studies reflect this by measuring housing retention for groups of individuals, irrespective of whether they move across different housing sites. Some studies measure the amount of time individuals are housed over a given interval, others measure how many individuals are housed at respective time points (e.g., Johnson et al., 2014; Rog et al., 2014; Somers et al., 2017). In contrast, formal support in single-site PSH is tied to a tenancy rather than to an individual – when the individual leaves the site, support does not follow them. Recognizing this, single-site studies generally report on tenancy retention at a single site (McDermott et al., 2013; Parsell et al., 2015a). Thus, comparing single-site retention rates to individual housing retention rates is potentially misleading, as single-site retention results are likely to be lower because of the more limited retention definition.

A narrower definition of housing retention is appropriate to single-site PSH, because the programs are confined to single sites, but this makes direct comparison with housing retention in scattered-site configurations problematic. Somers et al. (2017) were able to avoid these issues in their comparison of single-site and scattered-site PSH. They utilized a randomized control trial of groups assigned to start in either single-site or scattered-site PSH or existing services (treatment-as-usual, TAU), then tracked individual-level housing retention thereafter, with housing retention defined by *any* stable housing. Thus, the comparison of PSH configurations was achieved through the proxy of individual housing outcomes. This study provides one of the only comparisons of scattered and single-site PSH housing outcomes, finding little difference between the two configurations but marked improvement over TAU.

Many studies have investigated factors associated with tenancy sustainment following homelessness (see Boland et al., 2018 for a summary) but only a few have examined individual factors associated with tenancy duration and exit patterns in PSH. The study by Cusack et al. (2016) of 2070 veterans participating in a Supportive Housing program run by US Veterans Affairs, found that those most likely to lose their housing were middle aged and more likely to have health or behavioral problems. The Wong et al. (2006) study of over 1000 PSH residents with a mental illness identified two groups of residents: "stayers" and "leavers." They found no significant difference between the two groups in

terms of gender, race, ethnicity, or psychiatric diagnoses. Stayers, however, were older than leavers, and were less likely to have stayed in a public or mental health shelter prior to entering PSH.

Compared to the limited information on the factors that influence who stays and who leaves PSH, and why, there is more information on the factors that influence tenancy duration among residents in subsidized housing and in private rental. This wider pool of research indicates that variations in dwelling type, dwelling location, and housing model, all influence tenancy duration, especially when combined with different tenant attributes such as age, gender, and household type (Ambrose, 2005; Bahchieva & Hosier, 2001; Deng et al., 2003; Munch & Svarer, 2002; Nagy, 1995; Whelan, 2009). These non-PSH studies of tenancy duration are important to note. Firstly, because half the residents of Common Ground (those in affordable tenancies) have no history of chronic homelessness, but are a core component of the housing model nonetheless. Secondly, because research on non-PSH tenancies indicates that tenancy duration can vary widely according to dwelling and individual characteristics, even without the challenges posed by preceding experiences of homelessness.

When assessing tenancy patterns in mixed-tenure PSH, the parameters of "success" should be clarified. A longer tenancy is a preferred outcome for tenants with a history of chronic homelessness unless they exit in obviously favorable circumstances. This contrasts with housing programs where "graduation" or moving on are built into the program logic (Jadidzadeh & Falvo, 2019, p. 68). For low-income tenants in mixed-tenure PSH, very long tenancies are not necessarily a goal, but very short tenancies or tenancy exits in unfavorable circumstances have ramifications for the viability of the housing model.

Furthermore, it is important to note that people leave their housing for a range of reasons – sometimes to move into a better place, or sometimes to move in with a partner or friends, but some people also leave for other reasons such as arrears and repossession. There is a fundamental difference between these types of move, and researchers examining tenants' motivations for leaving subsidized housing, including PSH, have drawn a useful analytical distinction between those that leave because of permanent housing opportunities elsewhere, and those that leave because of problems within the tenancy. While these motivations have been labeled in a variety of ways - as negative exits (Gabrielian et al., 2016); as positive and negative exits (Cusack et al., 2016; Scherling, 2018); as push and pull factors (Raynor & O'Neil, 2018; Wiesel et al., 2014), as voluntary and involuntary or favorable and unfavorable exits (Wong et al., 2006) – a well-developed body of evidence indicates that low-income households that leave their housing for unfavorable reasons such as eviction report worse health and housing outcomes than those who leave for favorable reasons (Crane & Warnes, 2000; Cusack & Montgomery, Cusack and Montgomery, 2017a, Cusack and Montgomery, 2017b; García & Kim, 2021; Rutan & Desmond, 2021; Stenberg et al., 1995; Wong et al., 2006).

Research Context

The researchers were part of a five-year research partnership with a large social housing provider in Melbourne. The focus of the research partnership was to examine factors associated with tenancy breakdown and tenancy sustainment across the full portfolio of over 2,000 social housing properties managed or owned by the organization. The

research team had access to administrative data held by the organization, but also undertook primary research involving structured surveys with key populations. The researchers were located in the same building as the ESCG facility, which was also owned and managed by the social housing provider. While single-site, mixed-tenure PSH is popular with Australian policymakers, little is known of what to expect in terms of the housing retention and exit patterns in these facilities. In this context, it made sense to leverage the administrative data to assess the housing retention outcomes of ESCG.

Research Aims

Our first research question – how long do people stay in Common Ground? – quides an empirical assessment of tenancy sustainment using data from both exited and current tenancies, rather than housing retention by individuals. Our second research question – among those that leave Common Ground, how likely are they to depart in unfavorable circumstances? - addresses the exit circumstances of tenants. Understanding why people leave PSH is important because individuals who have experienced chronic homelessness and who leave PSH for unfavorable reasons, such as being evicted or abandoning their property, are more likely to move to less desirable housing situations, including homelessness, than those who leave for favorable reasons such as a moving to permanent, affordable but independent accommodation (Wong et al., 2006, p. 40; Cusack & Montgomery, Cusack and Montgomery, 2017a,Cusack and Montgomery, 2017b). Furthermore, if exits from a PSH facility are typically favorable, then the policy and practice implications are quite different than if exits are generally unfavorable. Finally, our interest in tenancy sustainment and the circumstances of people's departure from PSH leads to a third question - are the characteristics of short duration tenancies different from tenancies that last longer?

This combination of tenancy sustainment and exit circumstances can provide empirical insights into the housing outcomes of single-site, mixed-tenure PSH, and is achievable with administrative data. Further, assessing both tenancy types also helps to identify whether any predictors of tenancy outcomes are common across both supported and affordable tenancies, and thus independent of chronic homelessness and the support model. In turn, this can help to assess housing retention outcomes.

METHOD

It is well recognized that investigating the flow of people into and out of housing is suited to the techniques of survival analysis (Jadidzadeh & Falvo, 2019; Mills, 2011). This is because tenancies start at different times, end at different times, and can be ongoing when data becomes available, so that tenancy records are often right-censored (having unknown end dates). We utilize two different events of interest, each defining a different type of "survival." Where the event of interest is *exit for any reason*, survival refers to *tenancy sustainment*: meaning, longer avoidance of tenancy exit. We consider *tenancy sustainment* to be a directly equivalent but more readable term. Where the event of interest is *exit for unfavorable reasons*, survival refers to longer *avoidance of exit for unfavorable reasons*.

8 🕒 S. TAYLOR AND G. JOHNSON

We use two established survival analysis techniques to address our research questions. We use the Kaplan–Meier estimator of the survival function to estimate overall probabilities of tenancy sustainment at ESCG. We compare survival distributions of supported and affordable tenancies, in recognition that their different biographical and social characteristics may impact on tenancy sustainment, and because, as noted, the parameters of "success" differ slightly by tenancy type. We then apply the Cox proportional hazards regression model to identify whether any tenant or tenancy attributes are significantly and proportionally associated with longer or shorter tenancies. The Cox proportional hazards model is a popular exploratory regression model because it does not require prior knowledge of the baseline hazard model.

For each tenancy type we use a purposeful selection process to determine which covariates to include in the Cox Proportional Hazards model. The aim of the purposeful selection process is to achieve the best predictive value with the fewest covariates (a parsimonious model). We follow the approach described in Mills (2011, pp. 142–144), with reference to Hosmer et al. (2008). This process entails: including all variables that were significant in Kaplan–Meier analysis or which were considered important in existing literature; determining if some variables can be removed without significantly reducing the quality of the model or producing a significant change in other individual results; and trialing the use of interaction variables. At each iteration we utilize the partial Akaike information criterion to assess the goodness of fit relative to the simplicity of the model. These hazard models identify tenancy groups most and least at risk of early exit from ESCG in supported and affordable tenancies, respectively.

We then turn our attention to the question of exit types. We summarize the numbers of exits for favorable or unfavorable reasons, and we use the Kaplan–Meier estimator to determine if tenancies that exit for unfavorable reasons spend more or less time living at ESCG than those who exit for favorable reasons. Finally, we utilize the Cox proportional hazards model to identify tenant and tenancy characteristics associated with experiencing an exit for unfavorable reasons. To do this, we modify the definition of the analysis event, so that only records with exits for an unfavorable reason are defined as having experienced a tenancy exit event. For the purposes of this final analysis, we make the assumption that exits for unfavorable reasons are an avoidance of an unstable housing move. The results of these hazard models, based specifically on unfavorable tenancy exits, identify tenancy groups most and least at risk of unfavorable exits form ESCG.

Data preparation

After obtaining ethics approval (Reference Number: 22,801; 7 May 2020) we built our dataset by merging extracts from two chronologically separate tenancy administration databases. The first tenancy administration database began collecting data on 1 July 2010 and stopped on 9 April 2013. The second tenancy administration database began collecting data on 1 May 2014. It was still active at the time of data extract (13 March 2020).

Complications were presented by tenancies that started when the first database was active but exited before the second database began. For these records (n = 56), we applied a default exit date to each record. This was the day before the second database began collecting data, or the day before a new tenancy commenced in the same

apartment, whichever of these dates was earlier. As this approach could over-estimate some tenancy durations for this group, we checked our findings with an alternative estimated exit date: the day after the first database stopped collecting data (10 April 2013), the earliest possible exit date. We found no significant change to the results using the earliest possible exit date.

The merged dataset contained 458 records. Our de-identified extract did not enable us to identify whether an individual tenant reentered ESCG (e.g., had multiple tenancies), so our records relate to 458 unique single spell tenancies rather than to individuals. Tenancy records which listed an exit reason but no exit date were excluded from survival and hazard analysis (n = 5).

Tenancy duration was defined by the time between date of tenancy start and: a) the tenancy exit date; or b) the date of data extract (March 2020). Days were the smallest time unit available and were the basis of calculations. Where results were represented as months, this was based on evenly sized rent months (365/12 days each).

Drawing on the literature relating to tenancy exit types, we categorized the exits reasons recorded in our database into two categories (Table 1). We classify exits as favorable where the exit reason primarily indicates a long-term housing opportunity elsewhere (for example, "offered social housing"). We classify exits as unfavorable where the exit reason indicates a problem in the tenancy: this includes exits in which the tenant was forced to leave by the housing provider (for example, "evicted after formal action on anti-social behaviour"), or where the tenant found the housing unaffordable or unsuitable, or where conflict, property abandonment, or incarceration were included in the exit reason (for example, "property abandoned," "conflict with neighbours").

We created two different event fields. An event field for tenancy exit was set to 1 if the tenancy had exited by the time of the data extract, and 0 if not. An event field for tenancy exit for an *unfavorable* reason was set to 1 if the tenancy had exited for an unfavorable reason by the time of the data extract, and 0 for all other outcomes. The tenancy duration (time in a tenancy) was identical for each case, but the event status differed according to exit status and exit type.

CLASSIFICATION (Exit type)	Exit reason recorded in tenancy administration database	% of exits with known reasons (N = 227)
FAVORABLE	Moved to other housing	16
	Leaving Melbourne	12
	Offered social housing	5
UNFAVORABLE	Housing unsuitable for needs	19
	Evicted after formal action on anti-social behavior	8
	Property abandoned	8
	Evicted after formal action on rent arrears	7
	Housing not affordable	7
	Vacated after formal action on anti-social behavior	6
	Incarcerated	5
	Vacated after formal action on rent arrears	4
	Conflict with neighbors	2
	Evicted with immediate notice – put people or property in danger	1

Table 1. Exit types and exit reasons (where known).

10 👄 S. TAYLOR AND G. JOHNSON

Other fields were derived from raw administrative data. With administrative data available from inauguration of ESCG, there was no left-censoring (unknown start dates) for tenancy records. Thus, we were able to include variables relating to the age of the site when a tenancy started (within one year of ESCG opening, within two years, etc.).

RESULTS

The results are presented in three parts. Part 1 presents summary statistics for tenancy and tenant characteristics. Part 2 focuses on probability of tenancy sustainment, and Part 3 narrows this focus to exit reasons.

Part 1: Tenancy and tenant characteristics

Table 2 summarizes tenant and tenancy characteristics by tenancy type and tenancy status. There are 458 tenancies in our dataset of which 129 (28%) were current at the time of data extract and 329 (72%) were exited. Over nine years of ESCG data, slightly more affordable tenancies had ended (172) compared to supported tenancies (157).

There are more males (60%) than females but this is particularly true in supported tenancies, where men account for two-thirds (66%).

The proportion of younger tenants varies substantially between the two tenancy types, with 1 in 4 tenants in affordable housing aged 24 or less at the beginning of their tenancy, compared to less than 1 in 10 for supported tenancies. In both types of tenancies very few people started when they were aged 55 or over.

	Supported	d tenancies	Affordable	e tenancies	All ter	nancies
	n	%	n	%	Ν	%
Current tenancies	68	30	61	26	129	28
Exited tenancies	157	70	172	74	329	72
TOTAL	225	100	233	100	458	100
Male	149	66	126	54	275	60
Female	76	34	106	46	182	40
TOTAL	225	100	232	100	457	100
Age at tenancy start						
24 or less	20	8.9	58	24.9	78	17.0
25–34	71	31.6	66	28.3	137	29.9
35–44	92	40.9	48	20.6	140	30.6
45–54	30	13.3	39	16.7	69	15.1
55–64	8	3.6	13	5.6	21	4.6
65 plus	2	0.9	3	1.3	5	1.1
Unknown	2	0.9	6	0.9	8	1.7
TOTAL	225	100	233	100	458	100
Median (years)	37	-	32	-	35	-
Indigenous	20	8.9	17	7.3	37	8.1
Disability (Known)	127	56.4	33	14.2	160	34.9
Psychiatric	45	20.0	8	3.4	53	11.6
Physical	13	5.8	1	0.4	14	3.1
Acquired Brain Impairment	18	8.0	0	-	18	3.9
Unknown/Not Stated	30	13	22	9.4	52	11.4

Table 2. Tenant and tenancy characteristics.

	Supported	d tenancies	Affordable	e tenancies
	Current (n = 68)	Exited (n = 157)	Current (n = 61)	Exited (n = 172)
0-11 months	10.3	50.3	11.5	40.7
12–23 months	10.3	17.8	16.4	29.7
24-35 months	13.2	12.1	8.2	12.8
36–47 months	5.9	10.8	11.5	12.8
4 years or more	60.3	8.9	52.5	4.1
TOTAL	100	100	100	100

Tuble 5. Tenuncy duration by tenuncy status and type	Table 3	. Tenancy	duration	by	tenancy	status	and	type.
--	---------	-----------	----------	----	---------	--------	-----	-------

Consistent with the approach of targeting supported housing to high-need individuals who have experienced chronic homelessness, over half (56%) of the supported tenants report a disability, nearly four times the rate reported among affordable tenancies (14%), with psychiatric disability and acquired brain injury the two most commonly reported disabilities.

Table 3 presents tenancy duration patterns but distinguishes between current tenancies and exited tenancies. The variations in tenancy duration by exit status highlight the differences in perspective introduced by different treatment of right-censored data. Among current tenancies (both affordable and supported), over half have been housed for four years or more. However, when we look at exited tenancies, the pattern is very different, with less than 10% of tenancies (both affordable and supported) lasting four years or more, and the majority lasting for less than 1 year. Both current and exited tenancies are important to consider when assessing tenancy dynamics. The techniques of survival analysis, presented next, enable this.

2. Survival and hazard analysis for tenancy sustainment

2.1. How long do people stay at ESCG?

Figure 1 plots the cumulative probabilities of tenancy sustainment, for supported and affordable tenancies at ESCG. One year after tenancy commencement, the cumulative probability of sustaining a supported tenancy (64%) is 5 percentage points lower than for an affordable tenancy (69%). There are differences between tenancy types, although they are modest. For both types, the probability of tenancy sustainment declines steeply in the first 12 months, and thereafter continues to decline but at slower rate. Before 18 months supported tenancies are more likely to exit than affordable tenancies, but after 18 months the opposite is true. By 2 years, the cumulative probability of sustaining a supported tenancy is 50%, and for an affordable tenancy it is 46%. By 5 years the probability of sustaining a supported tenancy is 20%.

Some tenancy sustainment results differed when parsing by variables such as age, gender, or disability status. A concise way to explore these differences is through hazard modeling, presented next.



Figure 1. Probability of tenancy sustainment, by tenancy type, with 95% Confidence Intervals.

	Supported tenancies			Affordable Tenancies			
	Hazard Ratio	Hazard Ratio 95% C.I	р	Hazard Ratio	Hazard Ratio 95% C.I	р	
Tenancy start – within first 2 years	1.96	1.36–2.83	<0.001***	1.66	1.19–2.32	0.003***	
Tenant age at tenancy start (years)	0.97	0.95–0.98	<0.001***	0.97	0.96–0.98	<0.001***	
Tenant psychiatric disability	0.67	0.44-1.01	0.057*	-	-	-	
Tenant Indigenous and female	2.33	1.27-4.65	0.016**	-	-	-	
Tenant gender: female	-	-	-	1.18	0.87-1.61	0.282	
Tenant Indigenous	-	-	-	3.06	1.79–5.23	<0.001***	
	Model concordance: 0.65			Model concordance: 0.65			
	Log-likelihood: –727.95			Log-likelihood: –771.10			
	AIC partial: 1463.9			AIC partial: 1550.19			

Table 4. Multivariate Cox Proportional Hazards parsimonious model results, tenancy exit.

*** Significant at 1% level;

** Significant at 5% level;

* Significant at 10% level.

2.2 Factors associated with tenancy sustainment

We use the Cox Proportional Hazards model to assess whether different tenant or tenancy characteristics consistently make one tenancy more likely to sustain than another. Table 4 shows the Cox Proportional Hazard results for tenancy exit for any reason, using the sets of covariates that give the best model fit for supported tenancies and affordable tenancies, respectively. Model diagnostics are included at the base of the table.

Four variables have a significant association with tenancy sustainment for supported tenancies. Firstly, if a tenancy started within 2 years of ESCG opening this is a significant predictor of shorter tenancy sustainment. Supported tenancies that started within the first two years of ESCG commencing are much more likely to exit at any given time in their tenancy, than tenancies that started after this, with odds of approximately 1.9 to 1 (Hazard Ratio 1.96, 95% Cl 1.4 to 2.8).

Secondly, older age when starting a tenancy is a significant predictor of longer tenancy sustainment for supported tenancies (HR 0.97, 95% CI 0.95 to 0.98). In percentage terms, the hazard ratio (HR) indicates that for every year increase in a tenant's age at the start of a supported tenancy, the likelihood of exiting ESCG at any timepoint reduces by approximately 3%, relative to a similar but younger tenant.

Thirdly, tenant psychiatric disability is a significant predictor of longer tenancy sustainment for supported tenancies (HR 0.67, 95% Cl 0.44 to 1.01). This result suggests that at any given time in their tenancy, tenants in a supported tenancy with a known psychiatric disability are approximately 33% less likely to exit than other tenants in a supported tenancy.

Lastly, Indigenous status and gender are not individually significant predictors of tenancy sustainment in supported tenancies, but the combination of gender and Indigenous status contributes significantly (HR 2.33, 95% CI 1.17 to 4.65). The results indicate that Indigenous females are more than twice as likely to exit a supported tenancy at any given time, compared to other supported tenants.

For affordable tenancies, there are three variables with significant associations with tenancy sustainment, and one (gender) which has only marginal significance but is included because the hazard model quality is reduced without it. Firstly, in common with supported tenancies, starting an affordable tenancy within the first 2 years of ESCG commencing is a significant and substantial predictor of shorter tenancy sustainment (HR 1.66, 95% CI 1.19 to 2.32). Affordable tenancies starting within the first two years of site operation are approximately 1.7 times more likely to exit in any given time in their tenancy, than tenancies started after this.

Secondly, also in common with supported tenancies, greater tenant age at tenancy commencement is a significant predictor of longer tenancy sustainment (HR 0.97, 95% CI 0.96 to 0.98). Similar to supported tenancies, for every year increase in a tenant's age at tenancy commencement, the likelihood of exiting an affordable tenancy at ESCG at any timepoint reduces by approximately 3%.

Thirdly, Indigenous status is a significant predictor of shorter affordable tenancies. Table 4 shows a significant association with shorter tenancy sustainment for Indigenous tenants (HR 3.06, 95% CI 1.79 to 5.23). This result indicates that Indigenous tenants are approximately three times as likely to exit in any given time in their affordable tenancy than are non-Indigenous tenants in affordable tenancies.

Lastly, while the individual results suggest that a female tenant is a predictor of shorter affordable tenancy, it is only marginally significant. We included gender in the affordable tenancy hazard model because removing the gender covariate substantially reduces the goodness of fit. However, in contrast to supported tenancies, the interaction variable indicating that a tenant is both Indigenous and female, does not return significant results.

14 🕒 S. TAYLOR AND G. JOHNSON

3. Exit reasons

3.1 Prevalence of favorable and unfavorable exits

There are 329 exits in our database and we have information on the reasons people left for 227 exits (69%). Table 5 shows that unfavorable exits are more common overall (67%), and that supported tenancies are more likely to have ended for unfavorable reasons (72%) than affordable tenancies (62%).

3.2 Tenancy sustainment by exit type

Figures 2 and 3 plot the cumulative probabilities of tenancy sustainment for supported and affordable tenancies before they exit for favorable or unfavorable reasons, respectively.

		-, /	
	Supported tenancies $(n = 110)$	Affordable tenancies $(n = 117)$	TOTAL (N = 227)
Unfavorable	71.8	62.4	67.0
Favorable	28.2	37.6	33.0
TOTAL	100.0	100.0	100.0



Figure 2. Probability of tenancy sustainment, by tenancy exit type (supported tenancies), with 95% Confidence Intervals.

Table 5. Known exit type by tenancy status, % of exits with known exit type.



Figure 3. Probability of tenancy sustainment, by tenancy exit type (affordable tenancies), with 95% Confidence Intervals.

Figure 2 shows that unfavorable exits from supported tenancies occur earlier than favorable exits. Among supported tenancies that exit for unfavorable reasons, there is a 50% probability that this will occur within the first 9 months. By contrast, among supported tenancies that exit for favorable reasons it is 13 months before we reach a 50% probability of exit. The pattern is similar but not as pronounced among affordable tenancies that exit ESCG (Figure 3): among affordable tenancies that exit for unfavorable reasons, we reach a 50% probability of exit by 12 months, compared to 18 months for favorable reasons.

3.3 Characteristics associated with unfavorable exits

In this section, we utilize the Cox Proportional Hazards model again, but this time to identify tenant and tenancy characteristics associated with experiencing an exit for unfavorable reasons. At this stage of the analysis, a higher hazard ratio indicates higher odds of experiencing an unfavorable exit at any given time.

Table 6 shows the multivariate Cox Proportional Hazards result for unfavorable exits, using the sets of covariates that give the best model fit for supported tenancies and affordable tenancies, respectively.

There are three variables of particular interest for unfavorable exits from supported tenancies. Firstly, higher tenant age is a highly significant predictor of longer avoidance of exit for unfavorable reasons (HR = 0.96, 95% Cl 0.94 to 0.98) with a decrease in risk of unfavorable exit of approximately 4% for every year increase in tenant age at tenancy commencement.

	Supported tenancies			Affordable Tenancies		
	Hazard Ratio	Hazard Hazard Ratio 95% Ratio C.I p			Hazard Ratio 95% C.I	р
Tenancy start – first year	2.84	1.69–4.76	<0.001***	-	-	-
Tenant age at tenancy start (years)	0.96	0.94–0.98	0.001***	0.96	0.94–0.98	0.001***
Tenant psychiatric disability	0.64	0.35-1.16	0.137	2.88	1.19–6.99	0.019**
Tenant gender: female	-	-	-	1.46	0.89-2.39	0.132
Tenant Indigenous	-	-	-	1.81	0.76-4.33	0.179
,	Model concordance: 0.68 Log-likelihood: —368.56 AlC partial: 743.13		Model Log- Al	concordance: likelihood: -3 C partial: 688	0.64 40.26 53	

Table 6. Multivariate Cox Proportional Hazards parsimonious model results, tenancy exit for unfavorable reasons.

*** Significant at 1% level;

** Significant at 5% level;

* Significant at 10% level.

Secondly, supported tenancies that started in the first year of ESCG site operation are 2.8 times more likely to exit for unfavorable reasons compared to supported tenancies that started after this time (HR = 2.84, 95% CI 1.69 to 4.76). Thirdly, tenant psychiatric disability is a marginally significant predictor of longer avoidance of unfavorable exit (HR = 0.64, CI 0.35–1.16). For affordable tenancies, tenant age is a highly significant predictor of longer avoidance of exit for unfavorable reason (HR = 0.96, 95% CI 0.94 to 0.98).

Tenant gender and tenant Indigenous status are both only marginal predictors of unfavorable exit from affordable tenancies. Female tenants are somewhat more likely to exit earlier for unfavorable reasons than other tenants in affordable tenancies, but this difference is marginal (HR = 1.46, 95% Cl 0.89 to 2.39). The same is true of Indigenous tenants: they are somewhat more likely to exit earlier for unfavorable reasons than other tenancies, but the difference is marginal (HR = 1.41, 95% Cl 0.76 to 4.33).

Next – and somewhat surprisingly – tenant psychiatric disability is a strong predictor of earlier and unfavorable exit from affordable tenancies (HR = 2.88, 95% CI 1.19 to 6.99). This result is surprising firstly because there are so few tenants in affordable tenancies with a psychiatric disability (n = 8); secondly because psychiatric disability is not a significant predictor of overall tenancy sustainment for affordable tenancies; and thirdly because the Common Ground model assigns affordable tenancies to low-income tenants with low support needs, and a psychiatric disability is suggestive of some support needs. While accounting for a small fraction of affordable tenancies, tenants with psychiatric disabilities account for a large share of unfavorable exits.

Finally, of note is the fact that the start year of a tenancy is not a predictor for unfavorable exits from affordable tenancies. This in contrast to other results (tenancy sustainment for both tenancy types, and unfavorable exits for supported tenancies).

3.4 Limitations

Before discussing the findings, it is important to note that the results of this study are limited by the small number of variables in the administrative dataset. Other unobserved factors are likely to impact on tenancy sustainment and exit circumstances. The hazard models fall short of accounting for all the variation in tenancy exit patterns, as indicated by the model diagnostics in the respective result tables. Model concordance varies from 0.64 to 0.68: thus, much better than random, but short of what would be considered a good fit. The hazard models are certain to be impacted by limited variables available, in particular the absence of more detailed health information. Better results might also be obtained by trialing different variables to represent tenant age, or by trialing non-proportional hazard models. The hazard models presented here are exploratory only, identifying significant variables but leaving many tenancy sustainment patterns unknown.

There is also scope to improve our understanding of ESCG by incorporating qualitative data relating to what it is like to live at the site, as well as tenants' motivations for staying and leaving. A mixed methods approach might shed light on the interactions between supported and affordable tenancies, which was noted to be limited in the early years of ESCG site operation (McDermott et al., 2013, p. 46).

A further limitation is that our dataset does not follow individuals after leaving ESCG. Some tenants who exited may have eventually moved into permanent housing, while others may have moved into homelessness, but without longitudinal data we cannot quantify the proportion returning to homelessness. This is compensated to some extent by the inclusion of exit circumstances – unfavorable exits, particularly formal eviction, are associated with poorer housing outcomes, including homelessness (Crane & Warnes, 2000; Cusack & Montgomery, Cusack and Montgomery, 2017a, Cusack and Montgomery, 2017b; García & Kim, 2021; Rutan & Desmond, 2021; Stenberg et al., 1995; Wong et al., 2006). Nonetheless, the best compensation is to interpret the survival and hazard results clearly. The probabilities of tenancy sustainment refer to site-specific tenancy sustainment; in turn, these can be interpreted as an absolute minimum probability for housing sustainment for individuals who started a tenancy at ESCG.

DISCUSSION

Our study provides insights into tenancy dynamics in a single-site mixed-tenure PSH facility in Australia over a long observation period. With nine Common Ground facilities across the country and more single-site PSH planned, our results provide policymakers with actionable information they can use to improve housing retention, reduce unfavorable exits, and better understand which groups are more likely to sustain their tenancies in this style of PSH. This is important because Australian evidence regarding the core outcome of PSH – namely, housing stability – is limited, making it difficult to establish how "permanent" Permanent Supportive Housing is. This is particularly true of single-site implementations of PSH, given that most studies of housing stability in PSH refer to scattered-site configurations, with methodologies that are difficult to translate to assessments of single-site PSH.

Tenancy sustainment patterns for both tenancy types at Elizabeth Street Common Ground (ESCG) are characterized by a mix of early exits and long-term stayers, with tenants more likely to have exited after 2 years than to still be at the site. On one hand, this can potentially present a sobering statistic to policymakers – that permanent housing is, more often than not, less than 2 years in duration. On the other hand, while the probabilities of tenancy exit are high in the first year, they are less dramatic thereafter. Having sustained their housing for a year, tenants have successively lower and lower probabilities of exiting. This is particularly true of tenants in supported tenancies. The results suggest that efforts to improve housing retention, particularly among supported tenancies, should focus on reducing early exits, with an understanding that unfavorable exits are especially likely in the first year of tenancy. One way to do this would be to offer more intensive, housing focused support during the settling in phase of a tenancy.

While it is reasonable to assume that after leaving PSH the risk of returning to homelessness is quite high for supported tenants, this is not necessarily true for affordable tenancies. Although tenants in affordable housing likely have more housing options than supported tenants, we are cognizant that these individuals have low-income (and potentially precarious) employment arrangements, and that many also left ESCG early or for unfavorable reasons. While a long tenancy is not necessarily a goal for affordable tenancies, very short tenancies or tenancies exited in unfavorable circumstances are not good outcomes. Research into mixed-tenure single-site PSH has focused more on households that have previously experienced chronic homelessness. Future research should pay closer attention to this cohort who have not experienced chronic homelessness but whose housing outcomes are important to the viability of this style of PSH.

While there are compelling reasons to focus on reducing early exits, it is equally clear that ESCG suits some people as a site for long-term housing. One tenant characteristic that outweighed all variables as a predictor of longer tenancy sustainment is tenant age. Older tenant age at tenancy start is very strongly associated with longer tenancy sustainment, and this is true of both tenancy types. The differences associated with tenant age cut across both tenancy types, and, by implication, across different preceding experiences of chronic homelessness. The significance of tenant age as a predictor of tenancy duration is well established in existing literature from varied housing programs, eras, and locations (Ambrose, 2005; Munch & Svarer, 2002; Nagy, 1995). Nonetheless, it is striking to note this so strongly repeated here, in two different tenancy cohorts.

A practical take on this result is that age-adjusted tenancy sustainment should be considered when assessing PSH models. A housing model that primarily houses tenants aged in their forties or fifties cannot, in fairness, be directly compared to a housing model primarily housing tenants aged in their twenties or thirties. It also sensitizes us to the points that single-site PSH is just one approach in a range of PSH options and that younger people may be better suited to a different PSH configuration which is not contingent on a single tenancy. Conversely, given that older people are more likely to stay in their tenancy, this should place a greater responsibility to ensure that the property suits their needs.

Although age matters, so too does the presence of a disability. Individuals with a known psychiatric disability have a good chance of sustaining a tenancy at ESCG (but not an affordable tenancy). While a positive association between psychiatric disability and tenancy sustainment might appear counter-intuitive, it is consistent with existing literature (Johnson et al., 2019). A key factor here is that those with a diagnosed mental illness are far more likely to be receiving assistance than those who do not have a formal diagnosis, and this assistance provides a crucial buffer against housing instability.

While the ESCG site evidently retains older tenants, and tenants with a psychiatric disability, the results are patchier for women and for Indigenous tenants. Indigenous tenants, of any gender, are more likely to exit affordable tenancies, and female tenants are marginally more likely to exit affordable tenancies, whether or not they are Indigenous. One possibility that these results suggest is that the site itself may be unwelcoming or unappealing to both female and to Indigenous tenants. Another possibility is that the support model is not sufficiently tailored to these tenants. These possibilities are important to investigate but are difficult to infer from administrative data alone.

Either way, it should be acknowledged that a mixed-tenure, single-site PSH setting may be unwelcoming to some tenants for the same reasons it is appealing to others. This is consistent with findings from the Brisbane Common Ground site (Parsell et al., 2015b), including the observation that some tenants found scrutiny of personal relationships via the concierge system to be awkward while others found it reassuring, and that problematic behavior of other tenants was disproportionately felt by female tenants and younger tenants (pp. 1197–1205). Similarly, Miterko and Bruna (2021) noted that the for some residents of a single-site PSH project in the US, the positive features of living in proximity to others were outweighed by interpersonal conflict. The authors recommended prioritizing client choice in assessing whether single-site PSH was likely to be suitable for them, and also in allowing for adjustments to program implementation, noting that security measures which offered a sense of safety from outside threats were generally experienced positively, while other security rules (such as guest limits) were a source of tension. These themes identified in qualitative studies of single-site PSH can offer potential explanations for tenancy sustainment patterns at ESCG: for example, early exits and exits in unfavorable circumstances are suggestive of a mismatch between individual and living environment, or of the negative features of congregate living outweighing the positive.

Data relating to the age of the site presented some unique opportunities, with no leftcensoring of tenancy records. We found that tenancies that commenced in the early years of the ESCG site's operation had a significantly and substantially lower probability of sustaining a tenancy than tenancies that started after this. The difference was significant for both affordable and supported tenancies, but more pronounced for supported tenancies. Supported tenancies started within the first two years of site operation were 96% more likely to exit, at any time, than supported tenancies started after this. Affordable tenancies started within the first two years of site operation were 66% more likely to exit, at any time, than affordable tenancies started after this. In addition, supported tenancies started within the first year of ESCG were significantly more likely to exit for unfavorable reasons. Thus, there was a dramatic shift between what can be termed the "implementation period" of ESCG, and the more settled years that followed. The different tenancy duration patterns draw attention to the challenges of implementing new, complex social programs. As identified in assessments of Housing First programs (Macnaughton et al., 2015; Worton et al., 2018), housing programs face different challenges as they move through implementation stages. "Teething" problems are common in the initial

20 🕒 S. TAYLOR AND G. JOHNSON

implementation stage, when the first clients are housed. Subsequent adjustments to program delivery are common but can potentially result in program drift. In this sense, ESCG shows similarities to Housing First programs evaluated overseas.

Indeed, publicly available information indicates there were problems with the "client mix" early in the site's operations (McDermott et al., 2013, p. 1) and a new support model was implemented at ESCG in 2012. The new model provided team support rather than individual case management (HomeGround Services, 2012). In addition, direct access to 15 units for Department of Justice clients was stopped, and the target group was changed to exclude those with a "substantial history of violence" and "those who were not capable of living in a high-density environment" (McDermott et al., 2013, p. 43). Despite a significant reduction in support resources (HomeGround Services, 2012), tenancy retention rates subsequently improved. This counter-intuitive finding suggests that changes to a client mix can have a powerful influence on tenancy dynamics in general, and retention rates more specifically. In future work we plan to further investigate the pre/post implementation period at Elizabeth Street Common Ground, given that the differences in tenancy sustainment at the same site are so pronounced, and given that they speak to important policy and practice topics: firstly, the challenges of implementing complex new projects, and, secondly, issues relating to client mix, particularly the question of whether, and under what pressures, PSH providers may start to "cherry pick" clients.

Overall, the analysis suggests that single-site, mixed-tenure PSH is not suited as longterm housing to everyone, but those it does suit, it suits well. Older tenants with a history of chronic homelessness, but who have access to on-site support, are on similar footing to tenants without a history of chronic homelessness, and this is an achievement in itself. However, it is equally clear that this PSH approach is not permanent for the majority of individuals who have experienced chronic homelessness.

Our findings also raise important questions about how best to measure the efficacy of congregate PSH. Housing retention rates of a cohort of individuals, including moves to multiple sites, are the key metric used in many studies of PSH, but this has limitations when applied to single-site PSH models such as Common Ground. To better understand tenancy dynamics in single-site PSH, it is instructive to examine tenancy durations at a single-site, and to incorporate as many tenancies as practicable, both current and exited. Tenancy duration information should be augmented with information on why people leave: whether this largely is because of problems in the tenancy, or because of better opportunities elsewhere. In combination, these two measures provide a clearer picture of the tenancy dynamics in single-site facilities, helping to identify groups for whom the site is working effectively and those most at risk of an early or an unfavorable exit, as well as helping to identify whether outcomes change over time. This approach is replicable with commonly collected tenancy administration data. In the context that single-site, mixedtenure PSH is likely to remain one of the dominant configurations of PSH in Australia, a replicable assessment approach can help to manage expectations and better leverage its potential.

Although the goal of PSH should be to keep people housed, particularly if they have experienced homelessness, it is vital to acknowledge that people do exit PSH. In turn, this acknowledgment should be incorporated into practicable assessments of its different configurations. It should also inform a practice focus on reducing unfavorable exits and supporting those that do exit, to move into appropriate accommodation. This will ensure

that single-site, mixed-tenure PSH contributes to breaking the cycle of chronic homelessness, even if it is not permanent for everyone.

Disclosure statement

No potential conflict of interest was reported by the authors.

Notes on contributors

Sarah Taylor is a Postdoctoral Research Fellow (Social Housing and Homelessness Research) in the Unison Housing Research Lab, a partnership between RMIT University and Unison Housing, a social housing provider. She has extensive experience working with large administrative datasets, geographic information systems, and mixed methods. Her PhD research examined the history of live music in Sydney and Melbourne, using a combination of GIS and interviews with musicians. She has recently published investigations of social housing tenancy outcomes, homelessness service centre usage patterns, and rooming houses.

Guy Johnson is a Professor of Urban Housing and Homelessness and the Director of the Unison Housing Research Lab. He has been involved in the areas of precarious housing and homelessness for over three decades, initially as a practitioner and more recently as a researcher. Guy has extensive knowledge of existing homelessness research and current homelessness policies, and is well acquainted with the homelessness service system. Drawing on innovative mix of methodologies including longitudinal studies, randomised controlled trials, as well as in-depth qualitative work, Guy's research investigates theoretical and applied questions relating to the dynamics of homelessness and housing. His research has contributed extensively to government policy and agency practice that address the housing and support needs of disadvantaged and low income households.

References

- Ambrose, B. W. (2005). A hazard rate analysis of leavers and stayers in assisted housing programs. *Cityscape*, 8(2), 69–93. https://www.jstor.org/stable/20868593
- Atkinson, R. (2008). *Housing policies, social mix and community outcomes*. Australian Housing and Urban Research Institute.
- Australian Bureau of Statistics. (2012). Census of Population and Housing: Estimating Homelessness.
- Australian Bureau of Statistics. (2018). Census of Population and Housing: Estimating homelessness, 2016.
- Australian Institute of Health and Welfare. (2020). Specialist Homelessness Services Annual Report Cat. no. HOU 322. AIHW.
- Bahchieva, R., & Hosier, A. (2001). Determinants of tenure duration in public housing: The case of New York City. Journal of Housing Research, 12(2), 307–348. https://www.jstor.org/stable/ 24833775
- Boland, L., Slade, A., Yarwood, R., & Bannigan, K. (2018). Determinants of tenancy sustainment following homelessness: A systematic review. *American Journal of Public Health*, *108*(11), e1–e8. https://doi.org/10.2105/AJPH.2018.304652
- Bullen, J., Whittaker, E., Schollar-Root, O., Burns, L., & Zmudzki, F. (2016). In-Depth Evaluation of Camperdown Common Ground: Permanent housing for vulnerable long-term homeless people (SPRC Report 03/16). Social Policy Research Centre, UNSW.
- Capp, R., Porter, L., & Kelly, D. (2021). Rescaling social mix: Public housing renewal in Melbourne. *Journal of Urban Affairs*, ahead-of-print, 1–17 . https://doi.org/10.1080/07352166.2021.1962723
- Chen, P. M. (2019). Housing first and single-site housing. *Social Sciences*, 8(4), 129. https://doi.org/10. 3390/socsci8040129

- Collins, S., Malone, D., & Clifasefi, S. (2013). Housing Retention in Single-Site Housing First for Chronically Homeless Individuals With Severe Alcohol Problems. *American Journal of Public Health*, *103*(S2), S269–S274. https://doi.org/10.2105/AJPH.2013.301312
- Common Ground Queensland (n.d.) *What is supportive housing?* Available from: https://www. CommonGroundqld.org.au/about-us/what-is-supportive-housing. Accessed 27/04/2021
- Crane, M., & Warnes, A. (2000). Evictions and prolonged homelessness. *Housing Studies*, *15*(5), 757–773. https://doi.org/10.1080/02673030050134592
- Cusack, M., Montgomery, A. E., Blonigen, D., Gabrielian, S., & Marsh, L. (2016). Veteran returns to homelessness following exits from permanent supportive housing: Health and supportive services use proximal to exit. *Families in Society*, 97(3), 221–229. https://doi.org/10.1606/1044-3894. 2016.97.23
- Cusack, M., & Montgomery, A. (2017a). The role of eviction in veterans' homelessness recidivism. *Journal of Social Distress and the Homeless*, 26(1), 58–64. https://doi.org/10.1080/10530789.2017. 1314093
- Cusack, M., & Montgomery, A. (2017b). Examining the bidirectional association between veteran homelessness and incarceration within the context of permanent supportive housing. *Psychological Services*, *14*(2), 250–256. https://doi.org/10.1037/ser0000110
- Deng, Y., Gabriel, S. A., & Nothaft, F. E. (2003). Duration of residence in the rental housing market. *The Journal of Real Estate Finance and Economics*, 26(2–3), 267–285. https://doi.org/10.1023/A:1022987010545
- FaHCSIA. (2008). *The Road Home: A National approach to reducing homelessness*. Department of Families, Housing, Community Services and Indigenous Affairs.
- Gabrielian, S., Burns, A., Nanda, N., Hellemann, G., Kane, V., & Young, A. (2016). Factors associated with premature exits from supported housing. *Psychiatric Services*, 67(1), 86–93. https://doi.org/ 10.1176/appi.ps.201400311
- García, I., & Kim, K. (2021). "Many of Us Have Been Previously Evicted": Exploring the Relationship Between Homelessness and Evictions Among Families Participating in the Rapid Rehousing Program in Salt Lake County, Utah. *Housing Policy Debate*, *31*(3–5), 582–600. https://doi.org/10. 1080/10511482.2020.1828988
- Goering, P., Veldhuizen, S., Watson, A., Adair, C., Kopp, B., Latimer, E., Nelson, G., Mac-Naughton, E., Streiner, D., & Aubry, T. (2014). *National At Home/Chez Soi Final Report*. Mental Health Commission of Canada.
- Groenhart, L., Burke, T., & Ralston, L. (2014). *Thirty years of public housing supply and consumption:* 1981–2011. AHURI Final Report No. 231. Melbourne: Australian Housing and Urban Research Institute.
- Gulcur, L., Stefancic, A., Shinn, M., Tsemberis, S., & Fischer, S. N. (2003). Housing, hospitalization, and cost outcomes for homeless individuals with psychiatric disabilities participating in continuum of care and housing first programmes. *Journal of Community and Applied Social Psychology*, 13(2), 171–186. https://doi.org/10.1002/casp.723
- HomeGround Services (2012). Elizabeth Street Common Ground Supportive Housing Bulletin July 2012. Accessed 3/9/2020. :: http://old.rotaryclubofmelbourne.org.au/files/HAY5PDMOV5/ Elizabeth_St_Common_Ground_Bulletin_-_090712.pdf :
- Homelessness Policy Research Institute. (2019). *Outcomes in Single-Site and Scattered-Site Permanent Supportive Housing*. University of Southern California. Available from https://socialinnovation.usc. edu/homeless_research/outcomes-in-single-site-and-scattered-site-permanent-supportive-housing Accessed 30/09/2021
- Hosmer, J, D., Lemeshow, W., & May, S. (2008). Applied Survival Analysis: Regression Modeling of Timeto-Event Data (2nd Edition). Wiley & Sons.
- Jadidzadeh, A., & Falvo, N. (2019). Patterns of exit from housing in a homelessness system of care: The case of Calgary, Alberta. *Housing Studies*, 34(1), 66–91. https://doi.org/10.1080/02673037. 2018.1432755
- Johnsen, S., & Teixeira, L. (2010). Staircases, elevators and cycle of change: 'Housing First' and other housing models for homeless people with complex needs. Crisis.

- Johnson, G., Kuehnle, D., Parkinson, S., Sesa, S., & Tseng, Y. (2014). Sustaining exits from long-term homelessness: A randomised controlled trial examining the 48 month social outcomes from the Journey to Social Inclusion pilot program. Melbourne: Sacred Heart Mission.
- Johnson, G., Scutella, R., Tseng, Y. P., & Wood, G. (2019). How do housing and labour markets affect individual homelessness? *Housing Studies*, 34(7), 1089–1116. https://doi.org/10.1080/02673037. 2018.1520819
- Keast, R., Waterhouse, J., Pickernell, D., & Brown, K. (2011). *Ready or not? Considerations for the Qld housing service system Research report: Housing Readiness*. Queensland: Housing and Homelessness Unit, Department of Communities.
- Kertesz, S. G., & Johnson, G. (2017). Housing first: Lessons from the United States and challenges for Australia. Australian Economic Review, 50(2), 220–228. https://doi.org/10.1111/1467-8462.12217
- Macnaughton, E., Stefancic, A., Nelson, G., Caplan, R., Townley, G., Aubry, T., McCullough, S., Patterson, M., Stergiopoulos, V., Vallée, C., Tsemberis, S., Fleury, M.-J., Piat, M., & Goering, P. (2015). Implementing Housing First across sites and over time: Later fidelity and implementation evaluation of a pan-Canadian multi-site Housing First program for homeless people with mental illness. *American Journal of Community Psychology*, 55(3–4), 279–291. https://doi.org/10.1007/ s10464-015-9709-z
- McDermott, S., Bullen, J., & Muir, K. (2013). *Evaluation of Elizabeth Street Common Ground Supportive Housing Project*. University of New South Wales.
- Mercy Foundation (2014). Common Ground & Permanent Supportive Housing. Accessed 12/12/2020. https://www.mercyfoundation.com.au/our-focus/ending-homelessness/common-ground-permanent-supportive-housing/

Mills, M. (2011). Introducing survival and event history analysis. SAGE Publications.

- Miterko, P., & Bruna, S. (2021). Resident identified strengths and challenges of project-based permanent supportive housing program implementation in a small metropolitan county. *Housing and Society*, *48*(3), 239–260. https://doi.org/10.1080/08882746.2020.1818049
- Montgomery, A. E., Szymkowiak, D., Cusack, M. C., Austin, E. L., Vazzano, J. K., Kertesz, S. G., & Gabrielian, S. (2020). Veterans' assignment to single-site versus scattered-site permanent supportive housing. *American Journal of Orthopsychiatry*, 90(1), 37–47. https://doi.org/10.1037/ ort0000380
- Munch, J. R., & Svarer, M. (2002). Rent control and tenancy duration. *Journal of Urban Economics*, *52* (3), 542–560. https://doi.org/10.1016/S0094-1190(02)00502-8
- Nagy, J. (1995). Increased Duration and Sample Attrition in New York City's Rent Controlled Sector. *Journal of Urban Economics*, 38(2), 127–137. https://doi.org/10.1006/juec.1995.1025
- Padgett, D. K., Gulcur, L., & Tsemberis, S. (2006). Housing first services for people who are homeless with co-occurring serious mental illness and substance abuse. *Research on Social Work Practice*, 16 (1), 74–83. https://doi.org/10.1177/1049731505282593
- Padgett, D. K. (2007). There's no place like (a) home: Ontological security among persons with serious mental illness in the United States. Social Science and Medicine, 64(9), 1925–1936. https:// doi.org/10.1016/j.socscimed.2007.02.011
- Padgett, D. K. (2012). Supported Housing and the Lamppost—or Supported Housing in the Spotlight? *Psychiatric Services*, 63(7), 720. https://doi.org/10.1176/appi.ps.20120p720
- Parsell, C., Fitzpatrick, S., & Busch-Geertsema, V. (2014). Common Ground in Australia: An object lesson in evidence hierarchies and policy transfer. *Housing Studies*, 29(1), 69–87. https://doi.org/ 10.1080/02673037.2013.824558
- Parsell, C., & Moutou, O. (2014). AHURI Positioning Paper No. 158. Melbourne: Australian Housing and Urban Research Institute. : . .
- Parsell, C., Petersen, M., Moutou, O., Culhane, D., & Lucio, E. (2015a). *Brisbane Common Ground Evaluation: Final Report.* University of Queensland, Institute for Social Science Research.
- Parsell, C., Petersen, M., & Moutou, O. (2015b). Single-site supportive housing: Tenant perspectives. *Housing Studies*, 30(8), 1189–1209. https://doi.org/10.1080/02673037.2015.1009874

- Raynor, K., & O'Neil, M. (2018). "Every day I feel blessed": Experiences of new home owners exiting public housing into an affordable housing project in Melbourne. 2018 Joint Asia-Pacific Network for Housing Research and Australasian Housing Researchers Conference Proceedings, June 6-8 2018 (Asia-Pacific Network for Housing Research & Griffith University Cities Research Institute), Gold Coast, Queensland, Australia, 172–181.
- Rog, D. J., Marshall, T., Dougherty, R. H., George, P., Daniels, A. S., Ghose, S. S., & Delphin-Rittmon, M. E. (2014). Permanent supportive housing: Assessing the evidence. *Psychiatric Services*, 65(3), 287–294. https://doi.org/10.1176/appi.ps.201300261
- Rutan, D., & Desmond, M. (2021). The concentrated geography of eviction. *The Annals of the American Academy of Political and Social Science*, 693(1), 64–81. https://doi.org/10.1177/0002716221991458
- Scherling, A. E. (2018). Predicting Exits from Permanent Supportive Housing in Los Angeles. University of California. https://escholarship.org/uc/item/0p50w569
- Somers, J., Moniruzzaman, A., Patterson, M., Currie, M., Rezansoff, S., Palepu, A., & Fryer, K. (2017). A Randomized Trial Examining Housing First in Congregate and Scattered-site Formats. *PLOS One*, *12*(1). https://doi.org/DOI:10.1371/journal.pone.0168745
- Stahl, N., Collins, S. E., Clifasefi, S. L., & Hagopian, A. (2016). When Housing First lasts: Exploring the lived experience of single-site Housing First residents. *Journal of Community Psychology*, 44(4), 484–498. https://doi.org/10.1002/jcop.21783
- Stefancic, A., Tsemberis, S., Messeri, P., Drake, R., & Goering, P. (2013). A Pathways Housing First Fidelity Scale for individuals with Psychiatric Disabilities. *American Journal of Psychiatric Rehabilitation*, 16(4), 240–261. https://doi.org/10.1080/15487768.2013.847741.
- Stenberg, S. Å., Kåreholt, I., & Carroll, E. (1995). The precariously housed and the risk of homelessness: A longitudinal study of evictions in Sweden in the 1980s. *Acta Sociologica*, 38(2), 151–165. https:// doi.org/10.1177/000169939503800203
- Tiderington, E. (2021). "I achieved being an adult": A Qualitative Exploration of Voluntary Transitions from Permanent Supportive Housing. *Administration and Policy in Mental Health and Mental Health Services Research*, 48(1), 9–22. https://doi.org/10.1007/s10488-020-01036-z
- Tsemberis, S., & Eisenberg, R. F. (2000). Pathways to housing: Supported housing for street- dwelling homeless individuals with psychiatric disabilities. *Psychiatric Services*, 51(4), 487–493. https://doi. org/10.1176/appi.ps.51.4.487
- Tsemberis, S. (1999). From streets to homes: An innovative approach to supported housing for homeless adults with psychiatric disabilities. *Journal of Community Psychology*, *27*(2), 225–241. https://doi.org/10.1002/(SICI)1520-6629(199903)27:2<225::AID-JCOP9>3.0.CO;2-Y
- Whelan, S. (2009). The dynamics of public housing tenure in Australia. *Australian Economic Review*, 42(2), 155–176. https://doi.org/10.1111/j.1467-8462.2009.00535.x
- Wiesel, I., Pawson, H., Stone, W., Herath, S., & McNelis, S. (2014). Social housing exits: Incidence, motivations and consequences. AHURI Final Report No.229. Melbourne: Australian Housing and Urban Research Institute.
- Wong, I., Hadley, T., Culhane, D., Poulin, S., Davis, M., Cirksey, B., & Brown, J. (2006). Predicting Staying in or Leaving Permanent Supportive Housing That Serves Homeless People with Serious Mental Illness. University of Pennsylvania.
- Worton, S. K., Hasford, J., Macnaughton, E., Nelson, G., MacLeod, T., Tsemberis, S., Stergiopoulos, V., Goering, P., Aubry, T., Distasio, J., & Richter, T. (2018). Understanding systems change in early implementation of Housing First in Canadian communities: An examination of facilitators/barriers, training/technical assistance, and points of leverage. *American Journal of Community Psychology*, 61(1–2), 118–130. https://doi.org/10.1002/ajcp.12219