# Determinants of Tenancy Sustainment Following Homelessness: A Systematic Review

Leonie Boland, PhD, Anita Slade, PhD, Richard Yarwood, PhD, and Katrina Bannigan, PhD

Background. Tenancy sustainment—maintenance of a tenancy to avoid a premature end of tenure—is fundamental to prevention of homelessness. Understanding what enables a successful tenancy is essential in informing interventions designed to support people in leaving homelessness.

**Objectives.** To conduct a systematic review identifying determinants associated with tenancy sustainment following homelessness.

Search Methods. A detailed search of 12 electronic databases, as well as gray literature sources, was conducted in 2015 and updated in 2016.

**Selection Criteria.** We included all study designs with a population of homeless or formerly homeless individuals in which tenancy sustainment was the primary outcome. Two reviewers independently carried out abstract and full-text reviews. QualSyst, a validated quality appraisal tool, was used in assessing the methodological quality of articles.

Data Collection and Analysis. A data extraction form was developed for the review and was completed by a pair of reviewers to ensure accuracy. The heterogeneity of the studies included indicated that a narrative overview of the results was most appropriate.

Main Results. Forty-three articles reporting 38 studies were included. Determinants were categorized at 4 levels: individual, interpersonal, community, and structural. Participation in specific programs (e.g., Housing First), receipt of social support, and older age were identified as positive determinants of tenancy sustainment.

**Conclusions.** This systematic review is the first, to our knowledge, to focus solely on tenancy sustainment as a primary outcome. Although a range of determinants associated with tenancy sustainment were identified, it was difficult to draw strong conclusions owing to the heterogeneity of the studies. Despite being a fundamental concept in homelessness research, tenancy sustainment is poorly defined and conceptualized. A deeper understanding of tenancy sustainment will inform the development and evaluation of interventions that support people in leaving homelessness and maintaining tenancies.

Public Health Implications. Housing stability is central to preventing homelessness and addressing the numerous public health concerns that can co-occur with homelessness. Our review highlights that a standardized approach to measuring housing stability and more high-quality intervention studies are essential. (Am J Public Health. 2018;108:e1–e8. doi: 10.2105/AJPH.2018.304652)

# PLAIN LANGUAGE SUMMARY

Sustaining tenancies is central to preventing homelessness and supporting positive health. We carried out this study to synthesize the current evidence on tenancy sustainment among people leaving homelessness. This systematic review is, to our knowledge, the first to focus solely on tenancy sustainment as a primary outcome, and it will inform the design of interventions to support people in maintaining housing. Following

a comprehensive search and screening process, we included 43 articles that reported 38 studies. From a broad range of study designs, positive determinants of tenancy sustainment were grouped at individual, interpersonal, community, and structural levels. Participation in specific programs (e.g., Housing First), receipt of social support, and older age were identified as positive determinants of sustainment. The diversity of the included studies did not allow us to determine the most

probable determinants. We found that studies consistently reported an association between substance misuse and housing instability. An important finding of our review is the lack of consistency in how tenancy sustainment is defined and measured. There is a need for more high-quality evidence-based intervention studies involving standardized measures of tenancy sustainment to ensure that firm conclusions can be drawn about tenancy sustainment following homelessness. entral to the international strategic response to homelessness is the housing-led approach<sup>1</sup> in which immediate access to permanent housing is available along with flexible support services. Support is provided over varied lengths of time, as required, to prevent recurrent homelessness, but there is limited research on the establishment and maintenance of a settled home following homelessness.<sup>2</sup> A nuanced understanding of how individuals maintain their tenancies after homelessness is needed to inform public health practice and policy.<sup>3</sup>

Homelessness and ill health are intrinsically linked.<sup>4</sup> All individuals who are homeless need affordable and suitable accommodation; however, some people have additional complex needs requiring ongoing social support. Timeliness of support is also critical given the negative impact of prolonged homelessness on physical and mental health.<sup>5</sup> Studies have indicated the benefit of housing for health outcomes among those who were formerly homeless.<sup>6</sup>

Previous systematic reviews have analyzed interventions designed to improve health outcomes among people who are homeless. These reviews have indicated that coordinated treatment programs including provision of case management with supportive housing usually result in better access to health care. In a systematic review focused solely on case management models, de Vet et al. concluded that case management generally had a positive impact on housing stability but highlighted the need for more research. 9

Achieving tenancy sustainment is fundamental to avoid tenure breakdown and a return to use of homelessness services. 10 Tenancy sustainment is poorly defined and conceptualized<sup>11</sup> and frequently used interchangeably with terms such as housing stability, housing tenure, residential stability, and housing maintenance. It can refer to the information, advice, and support provided to prevent tenancies from coming to a premature end, but more widely it is used to indicate whether people remain in their tenancy for a set period of time that can range from 30 days to 6 months. The majority of studies have included a temporal element of tenancy sustainment as well as measures of health status, community integration, and service use. As a result of these differences in

definition, it has been difficult to compare and synthesize different studies.

Currently, it is not clear what enables a sustainable tenancy. The aims of our systematic review are to generate a deeper understanding of tenancy following homelessness and to determine factors that support and sustain tenancy. Our review will inform the development of interventions designed to support people in leaving homelessness and retaining a settled home.

## **METHODS**

We conducted our systematic literature review using the guidelines outlined in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Statement. It was designed in consultation with an information specialist and involved conceptual grouping of the search terms homelessness, leaving, and tenancy sustainment as well as their synonyms. In addition, terms such as housing stability, housing tenure, residential stability, and housing maintenance were included to develop a comprehensive understanding of the literature.

The original search was carried out in May 2015 and updated in October 2016. Twelve electronic databases (AMED [EBSCO], CINAHL [EBSCO], Embase [Ovid], MEDLINE [Ovid], OTseeker, PsycINFO [ProQuest], Social Care Online, SocIndex, Web of Science Social Sciences Citation Index, Cochrane Library, Campbell Library, Joanna Briggs Institute), as well as gray literature sources (including relevant third-sector Web sites and thesis repositories), were searched with no date restrictions. Details on full search strategies are available from the authors. All references were imported into Endnote.

With respect to inclusion criteria, studies of all designs were included, as were all studies written in English. Also included were studies that recruited individuals 16 years or older who were sleeping without shelter, who were using homeless service accommodations or were formerly homeless, or who were now in their own tenancy (regardless of length of time). Studies involving supporters of the participants or homeless service staff were included as well. Finally, all interventions that supported individuals in leaving homelessness and sustaining tenancy were included, along with studies in which the main outcome of interest was tenancy sustainment as the primary means of minimizing homelessness.

Studies were excluded if they focused on families only; leaving homelessness as part of a family can involve different influencing factors, and any interventions or services should fit a family-centered model. 12 Studies in which participants moved between emergency homeless accommodations were also excluded. All titles and abstracts were screened independently by 2 reviewers (Leonie Boland and Katrina Bannigan or Anita Slade), and full-text studies that were considered relevant were obtained when possible. Two reviewers (Boland and Bannigan or Slade) independently reviewed all full-text articles, and any discrepancies were resolved via consensus. The main cause for discussion was whether a given study had tenancy sustainment as its primary outcome. Interrater reliability was considered good, with a kappa coefficient for assessment of 0.698. Figure 1 presents the PRISMA flow diagram detailing each stage of the process.

Two reviewers independently assessed the methodological quality of included articles using QualSyst, a validated quality appraisal tool. <sup>13</sup> This tool facilitates evaluations of both quantitative and qualitative studies and was therefore a pragmatic choice considering the

# **ABOUT THE AUTHORS**

Leonie Boland is with the School of Health Professions, Faculty of Health and Human Sciences, University of Plymouth, Plymouth, England. Anita Slade is with the Centre for Patient Reported Outcomes Research, Institute of Applied Health Research, University of Birmingham, Birmingham, England. Richard Yarwood is with the School of Geography, Earth and Environmental Sciences, Faculty of Science and Engineering, University of Plymouth. Katrina Bannigan is with the School of Health Professions, Faculty of Health and Human Sciences, University of Plymouth, and the University of Plymouth Centre for Innovations in Health and Social Care, a Joanna Briggs Institute Centre of Excellence.

Correspondence should be sent to Leonie Boland, PhD, Faculty of Health and Human Sciences, University of Plymouth, Peninsula Allied Health Centre, Derriford Road, Plymouth PL6 8BH, United Kingdom (e-mail: leonie.boland@plymouth.ac.uk). Reprints can be ordered at http://www.ajph.org by clicking the "Reprints" link.

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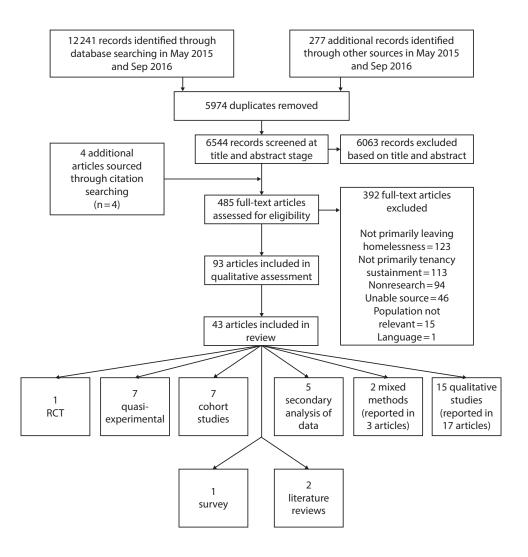


FIGURE 1—PRISMA Flow Diagram of the Study Selection Process

diverse range of studies found. The QualSyst tool designates 0.55 as a cutoff score; to optimize quality, however, a 0.65 cutoff was used. All included studies provided moderate (0.65-0.74) to strong (0.75-1.00) evidence according to this cutoff (Table A, available as a supplement to the online version of this article at http://www.ajph.org). This threshold allowed a balance between efficiency, inclusiveness, and quality.

The most common reasons quantitative study designs were excluded were that the study aims were not clearly identified, analytical methods were not reported, or there was incomplete control of confounding. Qualitative articles were excluded mainly as a result of limited or no data analysis reporting and lack of evidence of reflexivity. To ensure

accuracy, 2 reviewers (Boland and Bannigan) extracted data using the following headings: study aim, design, sample, data collection, and findings.

#### RESULTS

A total of 38 studies and 2 literature reviews, reported in 43 articles, met our inclusion criteria; included were 1 randomized controlled trial, 7 quasi-experimental study designs, 7 cohort studies, and 5 studies presenting secondary analyses (Figure 1). Of the 7 cohort studies, 4 were prospective, 1 was retrospective, and the remaining 2 reported both prospective and retrospective data. Of the 5 studies presenting secondary analyses, 3 involved data from prospective cohort studies and 2 focused on data from quasi-experimental studies. We identified 15 studies (in 18 articles) in which qualitative data were reported.

Twenty-two studies were conducted in the United States, 10 in Canada, 5 in the United Kingdom, and 1 in Australia. The majority of the studies (n = 38) were published in peer-reviewed journals; 3 were gray literature reports, and 2 were PhD theses. The articles were published between 1994 and 2016, the majority (n = 25) from 2010 to 2016 (Table A provides details on the studies).

In terms of health issues, 20 studies specifically recruited adults with mental illnesses or substance misuse problems. The remaining studies did not exclude people with mental

illnesses, but 2 studies focused on recruiting adults with substance use or severe alcohol problems. <sup>14,15</sup> Four studies targeted young adults: 2 included individuals 16 to 25 years of age, <sup>16,17</sup> 1 included individuals 16 to 19 years old, <sup>18</sup> and 1 included individuals between 18 and 25 years of age. <sup>19</sup> One study, described in 2 separate reports, focused only on adults 50 years or older. <sup>20,21</sup> Veterans were specifically recruited for 1 study, <sup>22</sup> and another study (reported in 2 articles) explored staff perspectives. <sup>23,24</sup> Sample sizes ranged from 4 to 4478.

All participants were experiencing homelessness at the time of recruitment, had participated in housing programs or interventions, or were formerly homeless and in tenancies at the time of the study. The most common intervention was Housing First, specified in 9 of the studies. <sup>14,15,25–31</sup> Selected characteristics of the 43 studies included in the analysis, as well as QualSyst scores, are described in Table A.

All of the included studies reported at least 1 outcome related to tenancy sustainment or housing stability. Six studies <sup>18,20,32–35</sup> based the outcome on a single dichotomous variable (housed or not housed), 1 study <sup>36</sup> included variable housing as a third classification, and another <sup>37</sup> incorporated a fourth variable categorizing treatment setting. In 5 studies <sup>14,15,38–40</sup> number of days housed was used as the housing stability outcome, and in 4 studies <sup>25,29,30,41</sup> percentage of days housed was used as the stability outcome.

The Residential Time-Line Follow-Back Inventory<sup>42</sup> was used in 3 studies<sup>29,30,41</sup> to assess residential status, and the residential follow-back calendar was used in 1 study.<sup>25</sup> Duration of residence required to be judged stably housed varied between studies. One study specified 30 days, 43 1 designated 60 days, <sup>38</sup> 2 specified at least 6 months, <sup>29,44</sup> and another specified 9 months<sup>45</sup>; the most frequent duration was 90 days, reported in 3 studies. 19,22,28 The heterogeneous pattern of samples and outcome measures indicated that a narrative overview of the results was most appropriate. Detailed results are shown in Table B (available as a supplement to the online version of this article at http://www. ajph.org). The identified determinants were categorized at 4 levels: individual, interpersonal, community, and structural (Table 1).

TABLE 1—Positive Determinants of Tenancy Sustainmen	TABLE 1—F	ositive Deter	minants of	Tenancy	Sustainmen
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Level	Positive Determinant		
Level 1: individual	Personal readiness <sup>19,28,32,33,46,47</sup> Older age <sup>15,37,40,48,49</sup> Time in hostel <sup>34,44,48</sup> Mental illness diagnosis <sup>40,47</sup> Sense of control <sup>47,50</sup> Daytime activities <sup>20,21,47</sup> Current job <sup>19</sup> Involvement with community mental health team <sup>37</sup>		
Level 2: interpersonal	Social support from family and housed friends <sup>18,32,33,38,48,50,51</sup> Support workers <sup>20,21,23,24,45,46</sup>		
Level 3: community	Integration with society <sup>17,26,28,32</sup> Neighborhood attributes <sup>48</sup> Consumer participation <sup>14</sup>		
Level 4: structural	State support <sup>19,36,43,50</sup> Housing First <sup>14,25,29,30,40</sup> Department of Housing and Urban Development–Veterans Affai Supportive Housing initiative <sup>22</sup> Hostel outreach program <sup>45</sup>		

 $\it Note.$  References 34 and 48 refer to the same study, as do references 20 and 21 and references 23 and 24.

### Level 1: Individual Determinants

Individual determinants include personal characteristics and behaviors. Data on age and its relationship to tenancy sustainment were reported in 6 studies. 15,35,37,40,48,49 Although 1 study did not reveal any significant differences in regard to demographics, 35 5 studies showed a positive relationship between tenure in housing and older age. 15,37,40,48,49 Older age was associated with increased tenure in supported independent living,<sup>49</sup> a Housing First project, 15 and various independent accommodation settings. 48 There were discordant findings related to gender and tenancy sustainment. Of the 4 studies that reported gender, 2 showed that it was not a significant predictor. 15,48 In 1 US-based study, female gender predicted unstable housing<sup>43</sup>; in another study, being a young adult man was associated with decreased prospects of housing stability. 19

The duration of time (specifically, more than 6 months) spent in temporary accommodations immediately before resettlement was found to be positively associated with tenancy sustainment in 2 UK-based studies<sup>34,44</sup>; however, this result was not supported by a US study.<sup>52</sup> Although the influence of length of time spent homeless was also inconclusive, <sup>15,43</sup> 1 study identified a positive association between housing

stability and having held a tenancy for at least 15 years before becoming homeless. <sup>21</sup>

Mental health is often cited as a cause of homelessness. However, 4 of the 7 studies that examined mental health showed that adults with mental illnesses were no less likely than those without such illnesses to maintain stable housing. 15,35,43,44 Indeed, having a mood disorder<sup>40</sup> or schizophrenia<sup>52</sup> was positively associated with increased tenure. One study pointed toward a negative association between interpersonal difficulties and tenancy sustainment, showing that individuals whose mental health symptoms caused interpersonal difficulties were less likely to achieve housing stability.<sup>41</sup> Duration of involvement with mainstream community mental health services was a significant predictor of being in a permanent setting at 12 months. However, 6 studies reported a negative relationship between substance misuse and tenancy sustainment. 15,18,19,22,35,40

Personal and psychological factors, including a desire for change and readiness to leave the street <sup>32,33,46</sup> as well as a desire for home maintenance, <sup>28</sup> appeared to be associated with better outcomes in 8 of the reviewed studies. Making changes, <sup>26</sup> "repairing identities," <sup>47</sup> and "making gains with life goals" <sup>16</sup> were all associated with tenancy sustainment. Two studies identified having a sense of control as important in

housing stability. 47,53 "Dealing with the past"33 was perceived to facilitate an escape from homelessness, and those who sought psychological help were more likely to achieve housing stability. 19

One study did not show any significant associations between domains of consumer choice and housing outcomes at 6 or 12 months.<sup>54</sup> Educational history was identified as a predictor of stability in only 1 study. 19 Two studies examined employment and housing stability; 1 showed a positive association with having been employed for more than 20 years before becoming homelessness,  $^{20}$  and the other revealed a positive association with having an income from current employment. 19 Results suggest that being involved in the informal sector (e.g., begging or stealing) predicted unstable housing. 19,43 Two studies 21,47 identified engagement in daytime activities and engagement in the routines of daily life as positive determinants of tenancy sustainment.

# Level 2: Interpersonal **Determinants**

A number of interpersonal determinants were associated with tenancy sustainment; in particular, social contact with other housed individuals was seen as having a positive impact. Social support, especially support from family members, was explored in 9 studies. Having regular contact with relatives or housed friends was significantly associated with tenancy sustainment, 18,33,38,48 and those in stable housing exhibited increased interaction with family members. 36,38 Personal support systems were perceived as a key influence. 32,33,50,51 One study<sup>20</sup> reported a negative association between continued socializing with homeless people and remaining resettled. These relationships were described as superficial or of negative valence by unstably housed participants.<sup>51</sup> This result is in apparent conflict to the finding that isolation has a negative association with tenancy sustainment 20,26,55 but may indicate the importance of perceived relationship

Four studies investigated the role of support workers in tenancy sustainment, and all reported positive associations. Positive determinants included at least fortnightly contact<sup>20,21</sup> and rapport and a strong

working relationship with one's case manager.<sup>23,24,45,46</sup>

# Level 3: Community Factors

A range of community factors were associated with tenancy sustainment. Four qualitative studies identified integrating or reengaging with "housed" society as a key theme contributing to tenancy sustainment. 17,26,28,32 Related determinants included realizing independence, 17 expressing a positive identity independent of homelessness,<sup>33</sup> and transforming occupational roles through housing.<sup>28</sup>

Three qualitative studies addressed neighborhoods. 27,46,48 Neighborhood attributes such as close proximity to shops and good transport links had a strong influence on tenancy sustainment outcomes.<sup>48</sup> Tension associated with being off the streets and adapting to unfamiliar neighborhoods away from previous environments also emerged as a theme.<sup>27,46</sup> Those with more participation in permanent housing programs were more likely to maintain their tenancies. 14 One study suggested that the community environment offered through single-site Housing First residences (individual units with access to shared spaces and on-site services) supported longer stays in housing and that adequate privacy enhanced residents' ability to remain stably housed.31

## Level 4: Structural Factors

The role of state support was found to be associated with housing stability in 4 studies. 19,36,43,50 in particular Section 8 certificates<sup>36</sup> and entitlement benefit income. <sup>19,43</sup> The remaining studies focused on interventions that supported tenancy sustainment. A literature review graded the level of evidence on permanent supportive housing as moderate.<sup>56</sup> Permanent supported housing provides housing stability and individualized flexible support for people who are homeless and have mental illnesses and substance use disorders.

A substantial literature, including 7 randomized controlled trials, demonstrated that components of the model of permanent supported housing reduced homelessness and increased housing tenure; however, methodological flaws limited the authors' ability to draw firm conclusions. In another review,<sup>57</sup>

the authors concluded that the best housing stability outcomes were observed in programs that offered combined housing and support (effect size = 0.67) and assertive community treatment (effect size = 0.47), whereas the weakest outcomes were observed for intensive case management programs (effect size = 0.28).

Nine studies were evaluations of housing and support interventions in which tenancy sustainment was a primary outcome measure. Of these studies, 6 were conducted in the United States 14,22,25,37,39,40 and 3 in Canada. 29,30,45 Seven of the 9 interventions recruited adults with severe mental illnesses, <sup>25,29,30,37,39,40,45</sup> and the remaining studies recruited veterans<sup>22</sup> and individuals with problematic substance misuse.<sup>14</sup> Two studies showed that participants with severe mental illnesses who lived in Housing First residences spent more time in stable housing than participants involved in treatment as usual. 25,30 There were also findings indicating housing stability among individuals with histories of chronic homelessness and problematic substance misuse who were participating in Housing First programs 14 and Pathways programs. 40

One study reported that, relative to usual access to existing housing and community services, scattered-site housing with intensive case management services resulted in housing stability over 24 months. <sup>29</sup> Veterans provided with intensive case management and Section 8 vouchers (Department of Housing and Urban Development-Veterans Affairs Supportive Housing initiative) were less likely to return to homelessness over 5 years than veterans offered intensive case management only or standard care.22

Another intervention reporting housing stability was the Housing Outreach Program, an assertive case management program.<sup>45</sup> During the 1990s, outreach workers supported individuals with mental illnesses in hostels in a Canadian city in accessing and maintaining accommodations. A different outreach project, linked similarly to hostels, revealed that a significant predictor of tenancy sustainment was duration of involvement with the project.<sup>37</sup> Statistically, tenure did not differ according to type of housing in a comparison of 2 types of supported housing and community residences operated by agencies with intensive support services.<sup>39</sup>

## **DISCUSSION**

Tenancy sustainment, although fundamental to resolving homelessness and critical in addressing the numerous public health concerns that can co-occur with homelessness, is poorly conceptualized in research. 11 This systematic review, the first to focus solely on tenancy sustainment as a primary outcome, addresses this knowledge gap. Provision of accommodation is essential, but housing stability enables positive health outcomes and leads to reduced public health care costs. 6

To summarize the breadth of empirical research, a comprehensive search strategy identified 38 studies with a diversity of designs as well as populations, settings, and interventions. We grouped stability determinants at the personal, interpersonal, community, and structural levels to provide an understanding of the current research on tenancy sustainment among people who are leaving homelessness. These levels operate as an interdependent system, and tenancy sustainment is effected through the interplay of determinants at the interrelated levels; unfortunately, however, the existing evidence does not provide conclusive information about relationships or effect sizes. From an intersectional perspective, variables interact with each other; for example, gender can influence service opportunities, or a diagnosis of mental illness can result in additional support. However, the data provided in the studies reviewed make it difficult to explicate the ways they operate with each other.

Strong conclusions on the influence of each determinant on tenancy sustainment cannot be drawn owing to the diversity of research designs and inconsistent definition of outcomes. In addition, the studies included a range of populations, and it is acknowledged that tenancy sustainment may be different for each group. This heterogeneity is in keeping with other systematic reviews in the area of homelessness.<sup>7,9</sup>

Our review identified participation in specific programs (e.g., Housing First), receipt of social support (from family members as well as support workers), and older age as the most probable determinants of tenancy sustainment. The role of family support in leaving homelessness has been receiving increased attention in the literature. <sup>58</sup> Therefore, an

element of rebuilding or enhancing family relationships should be incorporated as a component into tenancy sustainment. Qualitative evidence linked a number of psychological determinants, for example "wanting to change," to tenancy sustainment. Because it is helpful in gaining insight into what is effective, this identification of personal factors is an important consideration when considering tenancy sustainment.

Although our review included other interventions, <sup>22,45</sup> the results indicate that Housing First is the most promising intervention for tenancy sustainment. Because Housing First was implemented worldwide, research was embedded in the implementation,<sup>59</sup> which may account in part for why it was the most common intervention found in our review. The highest-quality evidence was derived from well-conducted evaluations of Housing First interventions in comparison with treatment as usual. These evaluations included a randomized control trial<sup>30</sup> as well as a quasi-experimental study (unblinded randomized trial)<sup>29</sup> examining scattered-site housing with intensive case management.

A recent systematic review also reported that Housing First appeared to be more effective than usual services with respect to improving housing stability. 60 Similarly, the review showed that other interventions (e.g., abstinence-contingent housing and housing vouchers) may also have beneficial effects, but the evidence is less clear. 60 Key elements of the Housing First model include consumer choice, separation of housing and treatment, availability of staff to help individuals pursue personal goals related to health, family and community integration, and meaningful activities. 40 These core components address a combination of positive determinants of tenancy sustainment at the individual, interpersonal, and community levels, suggesting a rationale for the promising results of Housing First.

More often Housing First studies specifically recruited adults with mental illnesses, which is perhaps not surprising in that the program was developed initially for this population. The studies included in our review consistently reported an association between substance misuse and housing instability. Although Housing First demonstrated promise for those with problematic substance misuse and severe alcohol

problems, <sup>14,15</sup> more research is needed to reach a more certain conclusion. Indeed, the suitability of Housing First for other groups such as younger adults and women has been questioned. <sup>1</sup> Future evaluation studies could help address this evidence gap. However, if Housing First is to be applied to other groups, research should inform how best to adapt the model to meet needs within local contexts. Understandably, there are challenges related to blinding within intervention studies, but more detailed reporting of comparison groups and interventions would increase study quality.

Our review highlighted the lack of consistency in how tenancy sustainment is defined and measured as a concept. Use of terms such as housing stability and housing retention appears to depend on the context and discipline of researchers, but these terms are often not defined sufficiently to ascertain whether they are referring to the same concept. A dichotomous housed or not housed variable was used in some studies, whereas counts of the number of days housed were used in others. The Residential Time-Line Follow-Back Inventory was used in 3 Housing First studies, which is not surprising given that it shares its origins with the model.

There was diversity among studies in terms of number of days constituting tenancy sustainment, although the most frequent duration was 90 days. This emphasis on number of days can overlook the personal experience of feeling settled and being part of a community. Longitudinal studies, although pragmatically challenging and costly to conduct, would contribute to our understanding of tenancy sustainment. As our review demonstrates, there is evidence that community integration and a supportive social network are positive determinants of tenancy sustainment. Consequently, there is a need for homelessness research to encompass broader measures of housing stability, such as subjective assessments of housing satisfaction; there is also a need for Housing First studies to focus on longer-term outcomes.

Future research needs to explore personal psychological factors such as readiness for tenancy sustainment, family support as a facilitator of tenancy sustainment (and the factors and interventions most effective in enabling such support), community integration during a tenancy following

homelessness (and the factors and interventions that enable it), and the elements of person-centered support that best enable tenancy sustainment. It is essential to use these understandings to design robust interventions in collaboration with stakeholders as a means of addressing the unique needs of people leaving homelessness. High-quality effectiveness studies involving randomized controlled or quasi-experimental designs will ensure that tenancy sustainment and its associated positive public health outcomes are realities for all who have experienced homelessness.

#### Limitations

Relevant studies published in languages other than English may have been overlooked, as our review exclusively included English-language publications. A consequence of aiming for high sensitivity in our search strategy (e.g., including shelter as a search term) was a trade-off with specificity, and a large number of studies that were not relevant were excluded. Although it was only one of many outcomes reported, we focused solely on tenancy sustainment. As a result of the heterogeneity of the studies included, we were unable to determine the most probable determinants of tenancy sustainment; however, our systematic review has value in identifying determinants. Further analytical studies (e.g., studies with cross-sectional designs) are required to determine associations between relevant factors and successful tenancy sustainment.

## Conclusions

In this review, we have synthesized a broad range of studies examining tenancy sustainment following homelessness. We identified participation in programs such as Housing First, receipt of social support from family members and support workers, and older age as positive determinants of tenancy sustainment. There was consistent reporting of the association between substance misuse and housing instability. An important finding of our review is the lack of consistency in how tenancy sustainment is defined and measured as a concept in research, and there is a need for more standardization. The determinants of tenancy sustainment we have identified can inform interventions designed to support

people leaving homelessness. However, high-quality evidence-based intervention research is needed to benefit all people who are defined as homeless or moving into a tenancy.

#### **CONTRIBUTORS**

L. Boland, A. Slade, and K. Bannigan planned the study and reviewed the literature. L. Boland and K. Bannigan assessed the studies and extracted and analyzed the data. All of the authors participated in writing and reviewing the article.

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#### **HUMAN PARTICIPANT PROTECTION**

No protocol approval was needed for this study because no human participants were involved.

#### **REFERENCES**

- 1. Pleace N, Bretherton J. The case for Housing First in the European Union: a critical evaluation of concerns about effectiveness. *Eur J Homelessness*. 2013;7(2):21–41.
- 2. Iaquinta MS. A systematic review of the transition from homelessness to finding a home. *J Community Health Nurs*. 2016;33(1):20–41.
- 3. O'Sullivan E. Pathways through homelessness: theoretical constructions and policy implications. In: Doherty J, Edgar B, eds. *In My Caravan, I Feel Like Superman: Essays in Honour of Henk Meert 1963–2006.* Brussels, Belgium: Feantsa; 2008:71–100.
- 4. Bharel M, Lin W-C, Zhang J, O'Connell E, Taube R, Clark RE. Health care utilization patterns of homeless individuals in Boston: preparing for Medicaid expansion under the Affordable Care Act. *Am J Public Health*. 2013; 103(suppl 2):S311–S317.
- 5. Johnstone M, Parsell C, Jetten J, Dingle G, Walter Z. Breaking the cycle of homelessness: housing stability and social support as predictors of long-term well-being. *Housing Stud.* 2016;31(4):410–426.
- 6. Brown RT, Yinghui M, Mitchell SL, et al. Health outcomes of obtaining housing among older homeless adults. *Am J Public Health*. 2015;105(7):1482–1488.
- 7. Fitzpatrick-Lewis D, Ganann R, Krishnaratne S, et al. Effectiveness of interventions to improve the health and housing status of homeless people: a rapid systematic review. *BMC Public Health*. 2011;11(1):638.
- 8. Speirs V, Johnson M, Jirojwong S. A systematic review of interventions for homeless women. *J Clin Nurs*. 2013; 22(7–8):1080–1093.
- 9. de Vet R, van Luijtelaar MJA, Brilleslijper-Kater SN, Vanderplasschen W, Beijersbergen MD, Wolf J. Effectiveness of case management for homeless persons: a systematic review. *Am J Public Health*. 2013;103(10): e13–e26.
- 10. Bowpitt G, Harding R. Not going it alone: social integration and tenancy sustainability for formerly homeless substance users. *Soc Policy Soc.* 2009;8(1):1–11.
- 11. Frederick TJ, Chwalek M, Hughes J, Karabanow J, Kidd S. How stable is stable? Defining and measuring

- housing stability. J Community Psychol. 2014;42(8): 964–979.
- 12. Kilmer RP, Cook JR, Crusto C, Strater KP, Haber MG. Understanding the ecology and development of children and families experiencing homelessness: implications for practice, supportive services, and policy. *Am J Orthopsychiatry*. 2012;82(3):389–401.
- 13. Kmet LM, Lee RC, Cook LS. Standard Quality Assessment Criteria for Evaluating Primary Research Papers from a Variety of Fields. Edmonton, Alberta, Canada: Alberta Heritage Foundation for Medical Research; 2004.
- 14. Davidson C, Neighbors C, Hall G, et al. Association of Housing First implementation and key outcomes among homeless persons with problematic substance use. *Psychiatr Serv.* 2014;65(11):1318–1324.
- 15. Collins SE, Malone DK, Clifasefi SL. Housing retention in single-site Housing First for chronically homeless individuals with severe alcohol problems. *Am J Public Health*. 2013;103(suppl 2):S269–S274.
- 16. Kidd SA, Frederick T, Karabanow J, et al. A mixed methods study of recently homeless youth efforts to sustain housing and stability. *Child Adolesc Social Work J.* 2015;33(3):207–218.
- 17. Stewart ABR. Managing a Tenancy: Young People's Pathways Into and Sustaining Independent Tenancies from Homelessness. Stirling, Scotland: School of Applied Social Science, University of Stirling; 2013.
- 18. Aubry T, Duhoux A, Klodawsky F, Ecker J, Hay E. A longitudinal study of predictors of housing stability, housing quality, and mental health functioning among single homeless individuals staying in emergency shelters. *Am J Community Psychol.* 2016;58(1–2):123–135.
- 19. Roy E, Robert M, Fournier L, et al. Predictors of residential stability among homeless young adults: a cohort study. *BMC Public Health*. 2016;16(1):131.
- 20. Crane M, Warnes AM. Resettling Older Homeless People: A Longitudinal Study of Outcomes. Sheffield, England: University of Sheffield, Sheffield Institute for Studies on Ageing; 2002.
- 21. Crane M, Warnes AM. The outcomes of rehousing older homeless people: a longitudinal study. *Ageing Soc.* 2007;27(6):891–918.
- 22. O'Connell MJ, Kasprow W, Rosenheck RA. Rates and risk factors for homelessness after successful housing in a sample of formerly homeless veterans. *Psychiatr Serv*. 2008;59(3):268–275.
- 23. Chen FP, Ogden L. A working relationship model that reduces homelessness among people with mental illness. *Qual Health Res.* 2012;22(3):373–383.
- 24. Chen FP. Developing community support for homeless people with mental illness in transition. *Community Ment Health J.* 2014;50(5):520–530.
- 25. Tsemberis S, Gulcur L, Nakae M. Housing First, consumer choice, and harm reduction for homeless individuals with a dual diagnosis. *Am J Public Health*. 2004; 94(4):651–656.
- 26. Patterson ML, Rezansoff S, Currie L, Somers JM. Trajectories of recovery among homeless adults with mental illness who participated in a randomized controlled trial of Housing First: a longitudinal, narrative analysis. *BMJ Open.* 2013;3(9):e003442.
- 27. Henwood BF, Hsu H-T, Dent D, et al. Transitioning from homelessness: a "Fresh-Start" event. *J Soc Social Work Res.* 2013;4(1):47–57.
- 28. Raphael-Greenfield EI, Gutman SA. Understanding the lived experience of formerly homeless adults as they

- transition to supportive housing. Occup Ther Ment Health. 2015;31(1):35–49.
- 29. Stergiopoulos V, Hwang SW, Gozdzik A, et al. Effect of scattered-site housing using rent supplements and intensive case management on housing stability among homeless adults with mental illness: a randomized trial. *JAMA*. 2015;313(9):905–915.
- 30. Aubry T, Goering P, Veldhuizen S, et al. A multiple-city RCT of Housing First with assertive community treatment for homeless Canadians with serious mental illness. *Psychiatr Serv.* 2016;67(3):275–281.
- 31. Stahl N, Collins SE, Clifasefi SL, Hagopian A. When Housing First lasts: exploring the lived experience of single-site Housing First residents. *J Community Psychol*. 2016;44(4):484–498.
- 32. Peterson JC, Antony MG, Thomas RJ. "This right here is all about living": communicating the "common sense" about home stability through CBPR and Photovoice. *J Appl Commun Res.* 2012;40(3):247–270.
- 33. Patterson A, Tweed R. Escaping homelessness: anticipated and perceived facilitators. *J Community Psychol.* 2009;37(7):846–858.
- 34. Crane M, Warnes AM, Coward S. Preparing homeless people for independent living and its influence on resettlement outcomes. *Eur J Homelessness*. 2012;6(2): 17–29.
- 35. Spicer B, Smith DI, Conroy E, Flatau PR, Burns L. Mental illness and housing outcomes among a sample of homeless men in an Australian urban centre. Aust  $N\ ZJ$  Psychiatry. 2015;49(5):471–480.
- 36. Wood PA, Hurlburt MS, Hough RL, Hofstetter CR. Longitudinal assessment of family support among homeless mentally ill participants in a supported housing program. *J Community Psychol*. 1998;26(4):327–344.
- 37. Bybee D, Mowbray CT, Cohen E. Short versus longer term effectiveness of an outreach program for the homeless mentally ill. *Am J Community Psychol.* 1994; 22(2):181–209.
- 38. Pickett-Schenk SA, Cook JA, Grey DD, Butler SB. Family contact and housing stability in a national multi-site cohort of homeless adults with severe mental illness. *J Prim Prev.* 2007;28(3–4):327–339.
- 39. Siegel CE, Samuels J, Tang DI, et al. Tenant outcomes in supported housing and community residences in New York City. *Psychiatr Serv.* 2006;57(7):982–991.
- 40. Tsemberis S, Eisenberg RF. Pathways to housing: supported housing for street-dwelling homeless individuals with psychiatric disabilities. *Psychiatr Serv.* 2000; 51(4):487–493.
- 41. Gabrielian S, Bromley E, Hellemann GS, et al. Factors affecting exits from homelessness among persons with serious mental illness and substance use disorders. *J Clin Psychiatry*. 2015;76(4):e469–e476.
- 42. Tsemberis S, McHugo G, Williams V, Hanrahan P, Stefancic A. Measuring homelessness and residential stability: The Residential Time-Line Follow-Back Inventory. *J Community Psychol.* 2007;35(1):29–42.
- 43. Zlotnick C, Robertson MJ, Lahiff M. Getting off the streets: economic resources and residential exits from homelessness. *J Community Psychol.* 1999;27(2):209–224.
- 44. Crane M, Joly L, Manthorpe J. Rebuilding Lives: Formerly Homeless People's Experiences of Independent Living and Their Longer-term Outcomes. London, England: Policy Institute at King's College London; 2016.
- 45. Goering P, Wasylenki D, Lindsay S, Lemire D, Rhodes A. Process and outcome in a hostel outreach

- program for homeless clients with severe mental illness. *Am J Orthopsychiatry*. 1997;67(4):607–617.
- 46. Jost JJ, Levitt AJ, Porcu L. Street to home: the experiences of long-term unsheltered homeless individuals in an outreach and housing placement program. *Qual Soc Work Res Pract.* 2011;10(2):244–263.
- 47. Padgett DK. There's no place like (a) home: ontological security among persons with serious mental illness in the United States. *Soc Sci Med*. 2007;64(9):1925–1936.
- 48. Warnes AM, Crane M, Coward SE. Factors that influence the outcomes of single homeless people's rehousing. *Housing Stud.* 2013;28(5):782–798.
- 49. Wong YL, Poulin SR, Lee S, Davis MR, Hadley TR. Tracking residential outcomes of supported independent living programs for persons with serious mental illness. *Eval Program Plann.* 2008;31(4):416–426.
- 50. McNaughton CC. Understanding Transitions Through Homelessness in a Risk Society. Glasgow, Scotland: Department of Urban Studies, University of Glasgow; 2007.
- 51. Gabrielian S, Young AS, Greenberg JM, Bromley E. Social support and housing transitions among homeless adults with serious mental illness and substance use disorders. *Psychiatr Rehabil J.* 2018;41(3):208–215.
- 52. Wong Y-LI, Hadley TR, Culhane DP, et al. Predicting staying in or leaving permanent supportive housing that serves homeless people with serious mental illness. Available at: https://www.huduser.gov/portal/publications/homeless/permhsgstudy.html. Accessed September 1, 2018.
- 53. Kirkpatrick H, Byrne C. A narrative inquiry: moving on from homelessness for individuals with a major mental illness. *J Psychiatr Ment Health Nurs*. 2009;16(1):68–75.
- 54. Tsai J, Rosenheck RA. Consumer choice over living environment, case management, and mental health treatment in supported housing and its relation to outcomes. *J Health Care Poor Underserved*. 2012;23(4): 1671–1677.
- 55. Fotheringham S, Walsh CA, Burrowes A. 'A place to rest': the role of transitional housing in ending homelessness for women in Calgary, Canada. *Gend Place Cult.* 2013:21(7):834–853.
- 56. Rog DJ, Marshall T, Dougherty RH, et al. Permanent supportive housing: assessing the evidence. *Psychiatr Serv.* 2014;65(3):287–294.
- 57. Nelson G, Aubry T, Lafrance A. A review of the literature on the effectiveness of housing and support, assertive community treatment, and intensive case management interventions for persons with mental illness who have been homeless. *Am J Orthopsychiatry*. 2007; 77(3):350–361.
- 58. Mayock P, Corr ML, O'Sullivan E. Homeless young people, families and change: family support as a facilitator to exiting homelessness. *Child Fam Soc Work*. 2011;16(4):
- 59. Greenwood RM, Stefancic A, Tsemberis S. Pathways Housing First for homeless persons with psychiatric disabilities: program innovation, research, and advocacy. *J Soc Issues*. 2013;69(4):645–663.
- 60. Munthe-Kaas H, Berg RC, Blaasvær N. Effectiveness of interventions to reduce homelessness: a systematic review. Available at: https://www.fhi.no/globalassets/dokumenterfiler/rapporter/2016/effectiveness-of-interventions-to-reduce-homelessness.pdf. Accessed September 1, 2018.