

Permanent Supportive Housing: Assessing the Evidence

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Objectives: Permanent supportive housing provides safe, stable housing for people with mental and substance use disorders who are homeless or disabled. This article describes permanent supportive housing and reviews research. **Methods:** Authors reviewed individual studies and literature reviews from 1995 through 2012. Databases surveyed were PubMed, PsycINFO, Applied Social Sciences Index and Abstracts, Sociological Abstracts, Social Services Abstracts, Published International Literature on Traumatic Stress, the Educational Resources Information Center, and the Cumulative Index to Nursing and Allied Health Literature. The authors chose from three levels of evidence (high, moderate, and low) on the basis of benchmarks for the number of studies and quality of their methodology. They also described the evidence of service effectiveness. **Results:** The level of evidence for permanent supportive housing was graded as moderate. Substantial literature, including seven randomized controlled trials, demonstrated that components of the model reduced homelessness, increased housing tenure, and decreased emergency room visits and hospitalization. Consumers consistently rated this model more positively than other housing models. Methodological flaws limited the ability to draw firm conclusions. Results were stronger for studies that compared permanent supportive housing with treatment as usual or no housing rather than with other models. **Conclusions:** The moderate level of evidence indicates that permanent supportive housing is promising, but research is needed to clarify the model and determine the most effective elements for various subpopulations. Policy makers should consider including permanent supportive housing as a covered service for individuals with mental and substance use disorders. An evaluation component is needed to continue building its evidence base. (*Psychiatric Services* 65:287–294, 2014; doi: 10.1176/appi.ps.201300261)

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Recovery can be difficult for individuals with mental or substance use disorders who are homeless. Research shows that individuals who are homeless have worse health status than those who are at risk of homelessness (1). Compared with those who are housed, individuals who are homeless have worse outcomes in areas such as living situation, family and social relations, employment, daily activities, and legal and safety problems (2). An understanding of the impact of housing on health provides the foundation for including housing programs as a part of the treatment and recovery process for individuals with mental or substance use disorders.

This article reports the results of a literature review that was undertaken as part of the Assessing the Evidence Base (AEB) Series (see box on next page). The objectives of this review were to describe the components of permanent supportive housing programs, rate the level of research evidence of existing studies (that is, methodological quality), and describe its effectiveness compared with other housing models and treatment as usual. The review also examined differences in the effectiveness of permanent supportive housing programs for various subgroups of the population.

Description of permanent supportive housing

For purposes of the AEB Series, the Substance Abuse and Mental Health

About the AEB Series

The Assessing the Evidence Base (AEB) Series presents literature reviews for 13 commonly used, recovery-focused mental health and substance use services. Authors evaluated research articles and reviews specific to each service that were published from 1995 through 2012 or 2013. Each AEB Series article presents ratings of the strength of the evidence for the service, descriptions of service effectiveness, and recommendations for future implementation and research. The target audience includes state mental health and substance use program directors and their senior staff, Medicaid staff, other purchasers of health care services (for example, managed care organizations and commercial insurance), leaders in community health organizations, providers, consumers and family members, and others interested in the empirical evidence base for these services. The research was sponsored by the Substance Abuse and Mental Health Services Administration to help inform decisions about which services should be covered in public and commercially funded plans. Details about the research methodology and bases for the conclusions are included in the introduction to the AEB Series (5).

Services Administration (SAMHSA) describes permanent supportive housing as a direct service that helps adults with mental and substance use disorders who are homeless or disabled identify and secure long-term, affordable, independent housing. Service providers offer ongoing support and collaborate with property managers to preserve tenancy and help individuals resolve crisis situations and other issues. Permanent supportive housing programs differ from other living arrangements by providing a combination of flexible, voluntary supports for maintaining housing and access to individualized support services. Table 1 presents a description of permanent supportive housing and its components. Beginning in the late 1990s, SAMHSA funded a multisite demonstration with explicit attention to the principles of

permanent supportive housing. Fidelity to these principles was measured in this demonstration (4). SAMHSA also recently published a tool kit that adapted these key elements of the model (4), which are listed in a box on the next page.

This review examined the evidence for permanent supportive housing, as defined by SAMHSA. Some established housing models that meet this service definition are Housing First and the U.S. Department of Housing and Urban Development–Veterans Affairs Supportive Housing program (HUD-VASH). The Housing First or Pathways to Housing programs consider housing a basic right and provide individuals with housing first. Housing is then combined with supportive treatment services in the areas of mental health and general medical health,

substance use, education, and employment. Abstinence from substance use and participation in services are not required for program participation. The HUD-VASH program for homeless veterans combines housing choice via voucher rental assistance with case management and clinical services. Services are provided for participating veterans at VA medical centers and community-based outreach clinics. In addition to studies of Housing First and HUD-VASH, this review included studies of other models reported to have high to moderate adherence to the components of permanent supportive housing.

Methods

Search strategy

We conducted a survey of major databases: PubMed (U.S. National Library of Medicine and National Institutes of Health), PsycINFO (American Psychological Association), Applied Social Sciences Index and Abstracts, Sociological Abstracts, Social Services Abstracts, Published International Literature on Traumatic Stress, the Educational Resources Information Center, and the Cumulative Index to Nursing and Allied Health Literature. We also examined bibliographies of major reviews and meta-analyses. We searched for meta-analyses, research reviews, and individual studies published from 1995 through 2012. Search terms included permanent supportive housing, supported housing, supportive housing, Housing First, and services-enriched housing.

Inclusion and exclusion criteria

This review was limited to U.S. and international studies in English and included the following types of articles: randomized controlled trials (RCTs), quasi-experimental studies, single-group time-series design studies, and review articles such as meta-analyses and systematic reviews; and studies that focused on individuals with mental disorders or co-occurring mental and substance use disorders. We excluded studies focused on populations with other health conditions and studies of families, children, and adolescents. We also excluded studies of transitional, congregate, recovery, sober living, and abstinence-contingent housing models

Table 1

Description of permanent supportive housing

Feature	Description
Definition	Permanent supportive housing is a direct service that helps adults who are homeless or disabled identify and secure long-term, affordable housing. Individuals participating in permanent supportive housing generally have access to ongoing case management services that are designed to preserve tenancy and address their current needs.
Goals	Secure long-term, affordable housing and provide access to support services
Populations	Adults with mental and substance use disorders who are homeless
Settings	Outpatient facilities

because these studies do not meet the SAMHSA definition for permanent supportive housing. Similarly, we excluded studies that focused on service interventions that support housing but that did not meet the SAMHSA definition, such as intensive case management and critical time intervention.

Strength of the evidence

The methodology used to rate the strength of the evidence is described in detail in the introduction to this series (5). The research designs of the studies that met the inclusion criteria were examined. Three levels of evidence (high, moderate, and low) were used to indicate the overall research quality of the collection of studies. Ratings were based on predefined benchmarks that considered the number of studies and their methodological quality. In rare instances when the ratings were dissimilar, a consensus opinion was reached.

In general, high ratings indicate confidence in the reported outcomes and are based on three or more RCTs with adequate designs or two RCTs plus two quasi-experimental studies with adequate designs. Moderate ratings indicate that there is some adequate research to judge the service, although it is possible that future research could influence reported results. Moderate ratings are based on the following three options: two or more quasi-experimental studies with adequate design; one quasi-experimental study plus one RCT with adequate design; or at least two RCTs with some methodological weaknesses or at least three quasi-experimental studies with some methodological weaknesses. Low ratings indicate that research for this service is not adequate to draw evidence-based conclusions. Low ratings indicate that studies have nonexperimental designs, there are no RCTs, or there is no more than one adequately designed quasi-experimental study.

We accounted for other design factors that could increase or decrease the evidence rating, such as how housing, populations, and interventions were defined; use of statistical methods to account for baseline differences between experimental and comparison groups; identification of moderating or

Key elements of permanent supportive housing

- Tenants have full rights of tenancy, including a lease in their name; the lease does not have any provisions that would not be found in leases held by someone without a mental disorder.
- Housing is not contingent on service participation.
- Tenants are asked about their housing preferences and provided the same range of choices as are available to others without a mental disorder.
- Housing is affordable, with tenants paying no more than 30% of their income toward rent and utilities.
- Housing is integrated; tenants live in scattered-site units located throughout the community or in buildings in which a majority of units are not reserved for individuals with mental disorders.
- House rules are similar to those found in housing for people without mental disorders.
- Housing is not time limited, so the option to renew leases is with the tenants and owners.
- Tenants can choose from a range of services based on their needs and preferences; the services are adjusted if their needs change over time.

confounding variables with appropriate statistical controls; examination of attrition and follow-up; use of psychometrically sound measures; and indications of potential research bias.

Effectiveness of permanent supportive housing

We described the effectiveness of permanent supportive housing—that is, how well the outcomes of the studies met its goals. We compiled the findings for separate outcome measures and study populations, summarized the results, and noted differences across investigations. We considered the quality of the research design in our conclusions about the strength of the evidence and the effectiveness of permanent supportive housing. We also considered whether permanent supportive housing should be covered by insurance plans on the basis of the level of evidence.

Results and discussion

Level of evidence

We identified eight literature reviews of various housing models including permanent supportive housing (6–13), seven RCTs (14–20), and other quasi-experimental studies (21–25). Tables 2 and 3 summarize the literature reviews and individuals studies included in this review, including the types of housing, the outcomes measured, and the results.

The level of evidence for permanent supportive housing was rated as moderate. Although seven RCTs

have been conducted, methodological flaws, such as a lack of a definition for permanent supportive housing or inconsistently defined program elements and small samples, are reflected in the moderate rating. Stronger designs compared no housing or “nonmodel housing” (8) with various housing approaches, including community residences (22), group homes (15), and various case management interventions (17). Some studies, such as the one by Culhane and colleagues (25), used control groups that were constructed from existing data. A number of the studies also had small samples with low statistical power to detect differences, and not all used standardized measures or scientific conventions when measuring outcomes. Results were stronger for studies that compared permanent supportive housing with treatment as usual or no housing.

Most studies reviewed did not provide evidence of fidelity or did not use consistent measurements of the fidelity principles. For example, a recent comprehensive review of 25 studies on supportive and supported housing and similarly labeled programs concluded that 16 of the 25 studies used the supported housing label to describe the programs, even though the programs adhered to less than 50% of the elements of the model (7). There was a lack of clear distinction between supported and supportive housing. The terms have been used interchangeably, and different housing

Table 2Review articles about permanent supportive housing included in the review^a

Study	Objective	Type of housing	Summary of findings
Ogilvie, 1997 (13)	Literature review of studies designed to establish supported housing and studies related to the housing setting and services provided	Full array of housing and service models	The review concluded that effectiveness research on supported housing is not available. Consumer preference surveys indicate that consumers want independent housing. Some evidence indicated that responding to their preferences led to residential success.
Parkinson et al., 1999 (12)	Literature review of 3 types of housing to establish key qualities and defining characteristics and to review the existing literature on the relationship between housing characteristics and outcomes	Custodial, supportive, supported housing	Authors defined supported housing as most similar to permanent supportive housing. Supported housing increased resident stability and independent living, reduced hospitalization rates, and increased satisfaction. Positive outcomes were specifically associated with access to housing subsidies and increased choice and control.
Newman, 2001 (11)	Critical review of the role of housing and neighborhoods in the lives of individuals with mental illness; the review included initial research findings and suggestions for future research	Full array of housing and service models	Independent housing was associated with greater satisfaction with housing and neighborhood. Individuals with mental illness who lived in inadequate housing experienced decreased functioning. Little is known about the effects of specific housing models on outcomes.
Fakhoury et al., 2002 (10)	Review of conceptual issues related to the provision of supported housing and examination of research methods and outcomes	Full array of housing and service models	Most evaluative studies were largely descriptive. Housing with and without support improved functioning, facilitated social integration, and led to greater consumer satisfaction compared with conventional hospital care.
Rog, 2004 (6)	Review of the evidence base for supported housing and the gaps in information that remain	Supported housing, Pathways to Housing	Housing with support improved housing stability and may have reduced hospitalizations and length of stay in hospitals and prisons.
Locke et al., 2007 (9)	Literature review of housing models; included key findings and discussion	Full array of housing and service models	A low-demand housing approach with available intensive services improved housing tenure. Participants acquired housing in a wide array of configurations, such as scattered-site units and mixed housing.
Leff et al., 2009 (8)	Meta-analysis of 44 housing alternatives described in 30 studies	Full array of housing and service models	Compared with residents in nonmodel housing (such as treatment as usual or shelters) or on the street, residents in the housing models (such as residential care and treatment, residential continuum, or permanent supportive housing) achieved significantly greater housing stability and other favorable mental health outcomes.
Tabol et al., 2010 (7)	Literature review of supported housing and similarly labeled programs to define the degree of clarity between models, fidelity to the model, and extent of systematic implementation and evaluation	Supported housing and similarly labeled programs	Three model elements were reported by 50% or more of the 25 supported housing studies. The literature reviewed was limited by conflicting use of program labels, inconsistent definitions of supported housing and its elements, and inadequate measurement indices.

^a Reviews are listed in chronological order.

approaches often were clustered under the same label—even within a single study (7,26).

Effectiveness of permanent supportive housing

The outcome measures most consistently used in studies of permanent supportive housing were housing stability, hospital inpatient and emergency

room use, consumer satisfaction, and behavioral health measures.

Housing and hospitalization. Despite the shortcomings in the body of research, a consistent finding was that the provision of housing—regardless of model—had a strong, positive effect in promoting housing stability and reducing homelessness (9). Compared with no housing or the status

quo, permanent supportive housing programs yielded positive outcomes on these domains. Some studies that compared permanent supportive housing programs with other types of housing have been unable to detect significant differences (6,9,19). However, a meta-analysis by Leff and colleagues (8) suggested that although a range of housing models improved

Table 3Individual studies of permanent supportive housing included in the review^a

Study	Sample size per type of housing	Outcomes measured	Summary of findings
Randomized controlled trials			
Hurlburt et al., 1996 (16)	90 or 91 participants in each of four experimental conditions; supported housing with and without Section 8 vouchers with traditional versus comprehensive services	Housing tenure	Improved housing tenure was found for those with Section 8 vouchers regardless of type of case management.
Goldfinger et al., 1999 (15)	55 participants in independent apartments; 63 in staffed group homes	Housing tenure, homelessness, hospitalization	Housing tenure for both groups was 76% at 18-months. No significant differences were found between groups.
Gulcur et al., 2003 (18)	99 participants in Housing First; 126 in continuum of care program	Proportion of time homeless and hospitalized, cost analysis	Housing First participants had fewer days homeless and fewer days in the hospital. Housing First was less expensive than the continuum of care program.
Rosenheck et al., 2003 (17)	182 participants in HUD-VASH with Section 8 vouchers and ICM; 90 in CM only; 188 in standard VA care	Days housed, days homeless, mental health status, community adjustments, costs	Supported housing participants had more days housed and fewer days homeless compared with those in CM only and in standard VA care.
Greenwood et al., 2005 (14)	93 participants in Housing First; 104 in treatment as usual	Proportion of time homeless, perceived choice, mastery, psychiatric symptoms	Housing First participants had less homelessness and greater perceived choice than those in treatment as usual.
Milby et al., 2005 (20)	66 participants in day treatment and no housing; 63 in abstinence-contingent housing; 67 in housing not contingent on abstinence	Abstinence prevalence, homelessness, employment	A higher prevalence of drug abstinence was noted in abstinence-contingent housing than in housing not contingent on abstinence, which in turn had a higher prevalence than no housing. Employment and housing outcomes improved in all three conditions.
Kertesz et al., 2007 (19)	66 participants in intensive behavioral day treatment with no housing; 63 in abstinence-contingent housing; 66 in housing not contingent on abstinence	Stable housing and employment over 60 days	Participants in abstinence-contingent housing and those in intensive behavioral day treatment both achieved the most significant improvements in housing and employment (42% and 40%), compared with those in noncontingent housing (33% and 33%) and no housing (25% and 25%).
Quasi-experimental studies			
Tsemberis and Eisenberg, 2000 (23)	242 participants in Pathways to Housing, compared with a citywide sample of 1,600 people housed through a linear residential treatment approach	Effectiveness of Pathways to Housing supported housing program over 5 years	After 5 years, 88% of Pathways participants remained housed versus 47% of participants in the comparison condition.
Culhane et al., 2002 (25)	3,338 matched pairs of participants in supportive housing and individuals who were homeless and not placed in housing	Homelessness, hospitalization, incarceration	Supportive housing reduced shelter use, hospitalizations, and length of stay in hospitals and jails or prisons.
Clark and Rich, 2003 (24)	83 participants in comprehensive housing (guaranteed access to housing, housing support services, and case management); 69 in case management only	Proportion of time in stable housing, homeless and functioning homeless, psychiatric symptoms, substance use	Individuals with high psychiatric symptom severity and high substance use achieved better housing outcomes with comprehensive housing than with case management only.
Siegel et al., 2006 (22)	75 participants in supported housing; 82 in community residences	Housing, clinical status, well-being	Residents in supported housing reported greater satisfaction related to autonomy and economic viability. Housing tenure did not differ by housing type.
Larimer et al., 2009 (21)	95 participants in Housing First; 39 on a wait-list	Service use, cost	Housing First was associated with a relative decrease in costs after 6 months, and benefits increased to the extent that participants were retained in housing for a longer period.

^a Studies are listed in chronological order under each type of research design. Abbreviations: CM, case management; HUD-VASH, Housing and Urban Development–Veterans Affairs Supportive Housing; ICM, intensive case management; VA, Veterans Affairs

tenure in housing and decreased homelessness, permanent supportive housing may have had the largest effect of all models.

A recent evaluation compared permanent supportive housing provided by the Collaborative Initiative on Chronic Homelessness with usual care and showed that when all outcome data obtained over two years were averaged, participants were housed an average of 52% more days during the previous three-month period (27). Furthermore, participants in the intervention experienced 60% fewer days of homelessness during the previous three months than those in the comparison group and had 33% fewer days of institutional care over two years. Comparisons with other specific housing models, however, did not find benefit for permanent supportive housing. When improvements among models have been found to differ (28), one explanation offered is that the intervention with stronger outcomes is more responsive to consumer needs and provides more consistent treatment to each consumer.

Three RCTs examined Housing First; for two of the RCTs, which involved people with severe mental illness, results were presented across four articles (14,18,28,29), and for one RCT, which involved people with cocaine dependence, results were presented across two articles (19,20). All studies found that participants in Housing First had significantly less homelessness compared with participants receiving standard care, day treatment with no housing, or housing that was contingent on treatment and sobriety. Housing First participants obtained housing earlier and remained stably housed. The authors interpreted their results as indicating that people with mental disorders are able to live independently. Studies also showed less hospitalization (8,9,18,21,25) and fewer emergency room visits (8,21) for participants in Housing First.

Several additional studies used strong quasi-experimental designs, either involving a comparison group of individuals in another type of housing (22,23) or a comparison group receiving another type of service (24). Findings included better housing outcomes (24) and increased housing tenure (23).

Consumer satisfaction. Another relatively consistent finding was that low-demand permanent supportive housing, compared with other housing models in which service participation is required or services are not offered, received the highest ratings of consumer preference (28) and satisfaction (8,22). For example, Leff and colleagues (8) examined 44 unique housing alternatives described in 30 studies; those that met the principles of permanent supported housing achieved the highest effect size (.73) for satisfaction, which differed significantly from the effect sizes for residential care and treatment and for treatment as usual. RCTs also found that compared with the control group, Housing First participants reported greater perceived choice (14,23).

Behavioral health. A majority of studies, including the meta-analysis by Leff and colleagues (8), found no effect of permanent supportive housing on psychological symptoms or alcohol or drug use. Tsemberis and associates (28) and Rosenheck and colleagues (17) found no significant difference in alcohol and drug use between groups, and Padgett and colleagues (29) found no significant difference over time that could be attributed to permanent supportive housing. Conversely, a study by Larimer and colleagues (21) found significant reduction in alcohol use for individuals in a Housing First model for homeless adults with severe alcohol problems compared with a wait-list group; however, the specific needs of this group may account for the difference in the findings from other studies on permanent supportive housing programs that focus on individuals with severe mental illness as the primary condition.

Outcomes for special populations. Compared with studies of other treatment models for individuals with mental disorders, supportive housing studies provided little detail about residents' diagnoses or other intake criteria. Studies that were sponsored by the National Institute of Mental Health and SAMHSA focused on individuals with severe and persistent mental illness but used different strategies for screening and measuring the disorder. Some housing

programs excluded individuals with active substance use; others included individuals with co-occurring mental and substance use disorders.

The effects of permanent supportive housing on individuals with primary or co-occurring substance use disorders have not been studied thoroughly. Two exceptions include Larimer and colleagues (21), who examined the effectiveness of a Housing First model for individuals who were chronically homeless and had a primary diagnosis of a substance use disorder, and O'Connell and colleagues (30), who examined the effectiveness of HUD-VASH for male veterans who were homeless and had substance use disorders or co-occurring mental disorders. Larimer and colleagues (21) found that Housing First participants had improvements in shelter use, sobering unit use, and total utilization costs compared with control groups. They also found that housing tenure was related to better improvement in the outcome measures. O'Connell and colleagues (30) found that compared with intensive case management alone, HUD-VASH was associated with more positive housing outcomes for veterans with co-occurring mental disorders and veterans who were active substance users.

Several of the studies, such as that by Larimer and colleagues (21), focused on individuals who were homeless at the time of the investigation and had histories of homelessness. Other studies did not require homelessness as an entry criterion (22).

Studies typically reported the demographic characteristics of the individuals, including age, race and ethnicity, veteran status, education, and marital status. Most studies had a diverse study population with respect to race and ethnicity (8,21), and some examined the moderating effects of race-ethnicity on outcomes. Leff and colleagues (8) reported inconsistencies regarding outcomes for racial and ethnic subgroups for supportive housing and all other housing intervention models. Examining pre-post effect sizes, the authors of this meta-analysis found that studies with a majority of nonwhite participants reported greater reductions in drug

and alcohol use and hospitalization, but these studies reported less housing stability and less satisfaction than studies in which a majority of participants were white. Another study, which compared HUD-VASH with intensive case management alone, found more positive housing outcomes for white participants than for African Americans and more positive clinical outcomes for African-American participants than for white participants (30). Similarly, studies with a majority of non-Hispanic participants found greater reductions in drug and alcohol use but less housing stability compared with studies in which a majority of participants were Hispanic (8). Edens and colleagues (31) found that men and women participating in the 11-site Collaborative Initiative on Chronic Homelessness demonstrated equal and significant improvements in the number of days housed and modest improvements in mental health outcomes over two years.

Conclusions

Studies have found that permanent supportive housing for individuals with mental and substance use disorders, compared with treatment as usual, reduced homelessness, increased housing tenure over time, and resulted in fewer emergency room visits and hospitalizations. Moreover, consumers consistently rated permanent supportive housing more positively than other housing models and preferred it over other more restrictive forms of care. On the basis of this evidence, the authors recommend that permanent supportive housing be included as a covered service as part of a full spectrum of options that support recovery for individuals with mental and substance use disorders.

The importance of the findings on consumer preference should not be underestimated. Consumer choice and consumer preference are at the center of many evidence-based practices, based on an understanding that consumers are more likely to embrace services that are tailored to their preferences and less likely to terminate services early or abruptly. Choice is recognized as an important factor in recovery, as it engages a consumer's willingness and motivation to make life changes (32).

Evidence for the effectiveness of permanent supportive housing: moderate

Areas of improvement suggested by overall positive results:

- Reduced homelessness
- Increased housing tenure over time
- Reduced emergency room use
- Reduced hospitalizations
- Increased consumer satisfaction

A key issue for permanent supportive housing is clearly defining and implementing the elements of the model. Currently, several housing programs meet the SAMHSA definition for permanent supportive housing. However, the quality of the evidence on the outcomes of permanent supportive housing is varied, and studies differ in the strength of their research design and methodological rigor. Even though multiple RCTs and some strong quasi-experimental designs have been implemented, methodological flaws prevent current research on permanent supportive housing from achieving more than a moderate level of evidence (see box on this page). Inconsistencies in the definition and implementation of models, the comparison condition used, and the outcomes measured, as well as small samples and variability in rigor, limit the ability to draw firm conclusions from the literature (6,7,8,11,26,27).

As consistently noted, there is a need to determine fidelity to permanent supportive housing principles, operationalize the interventions, and examine the program components that are related to outcomes (6,7,8,10,11). In particular, interventions should match service intensity to individual needs for various populations and capture the impact of these tailored interventions on outcomes. Absent to date is a careful review of the inclusion and exclusion criteria of various housing models that may shape the service population; this is needed to determine the generalizability of the findings.

Controlled comparative effectiveness research that systematically examines differences in outcomes among different models of permanent supportive housing is also needed. As Leff and colleagues (8) noted, because a wide variety of housing models have

been found to be effective in helping participants achieve residential stability and other positive outcomes, random assignment of individuals with mental and substance use disorders to different housing models should pose no ethical concerns. Finally, it would be helpful to have sensitivity within these studies to the moderating effects of individual characteristics, especially race, ethnicity, and age. Further research would provide a more complete understanding of which models yield the greatest improvement on a range of outcomes for various subpopulations.

Policy makers including payers (for example, state mental health and substance use directors, managed care companies, and county behavioral health administrators) should consider mechanisms that would support permanent supportive housing. A defined evaluation component is needed to continue to build the evidence base for permanent supportive housing as policy makers and others determine how best to incorporate it into a full continuum of care. Individuals with mental and substance use disorders can benefit from increased access to permanent supportive housing as a long-term support for a life in recovery in the community.

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