SUPPORTED HOUSING: REVIEW OF EVIDENCE

Brief description of the practice

Decent, safe, affordable and integrated housing is a basic aspect of recovery for persons with psychiatric disabilities. This review summarizes the extent to which supported housing approaches have been shown to contribute to this goal.

The terms "supported housing" and "supportive housing" are used inconsistently and with considerable imprecision and overlaps. Below is an attempt to arrive at a central meaning for each, as used in this review of evidence.

Supported housing is a program model in which a consumer lives independently (in a house, apartment or similar setting, alone or with others in landlord controlled housing), and has considerable responsibility for choosing and maintaining the housing while receiving support from mental health staff in monitoring and assisting with residential responsibilities. Lipton defines it as "permanent independent housing with flexible individualized services and supports that are integrated into the community and chosen by the consumer.[1]" It is sometimes termed a "housing as housing" approach because it developed as a consumer driven reaction against the residential continuum concept in which treatment and housing are linked. Supported housing advocates view independent housing as a right[2] rather than something to be earned by compliance with treatment.

Supportive housing applies to efforts to increase the stock of affordable permanent housing for persons with disabilities. The Corporation for Supportive Housing (CSH) is a federal funded agency endorsing and supporting this approach. This approach is also a component of California's Mental Health Services Act[3] and was endorsed by the President's New Freedom Commission. The CSH definition permits a variety of settings but each tenant has his or her own lease and the housing is "permanent" rather than "transitional." This range of housing is sometimes termed integrated housing development to emphasize that the housing units are usually added to existing stock by rehabilitating buildings and that a diverse set of tenants is recruited, with services frequently available on site. Integrated housing developments are designed for persons who are homeless or at risk of becoming homeless. In Los Angeles, for example, the Skid Row Housing Trust rehabilitates old hotels and works collaboratively with other agencies to provide services to its tenants. In New York City, 3,048 new individual housing units were built and occupied by formerly homeless persons between 1990 and 1997.[4] Hopper and Barrow trace the separate genealogies of the supported housing and integrated housing development approaches.[5] Major differences are highlighted in Table 1 on the next page.

Table 1: Practice components of supported and supportive housing (adapted from Hopper and Barrow[6]:

Supported housing (housing as housing)	Supportive housing (integrated development)
▪ Normalized housing in conventional units	▪ Adds new units or rehabs old units to increase stock of affordable housing
▪ Separates housing from mental health service provision	▪ Makes services available on site
▪ Leverages tenant access to scatter-site apartments	▪ Uses multi-unit buildings housing diverse constituencies
▪ Maximizes consumer choice and focuses on informal social networks and family	▪ Builds tenant involvement within the housing site and community in the neighborhood
▪ Promotes individual unit affordability through rental assistance and warranties; tenants agree to pay 30% of income per month for housing	▪ Develops project-level funding for housing through multiple funding streams and mixed use
▪ Funds are spent on rental vouchers and support	▪ Funds include housing development as well as rental vouchers and support

Despite these differences, supported housing and integrated housing development have several elements in common:[7]

- Housing choice: Clients have opportunities and assistance in exploring a range of housing options/preferences, including choice of who to live with, and furnishings.

- Housing and services roles are distinct: Housing (and/or housing subsidies) and support services are provided by separate entities. Participation in any type of services is not usually a condition of tenancy.

- Housing affordability: Tenants receive assistance in obtaining and maintaining eligibility for subsidies (such as Section 8 vouchers) that help cover rent costs if needed.

- Integration: Housing is (usually) in buildings that include a mix of people with and without a diagnosis of mental illness.

- Tenancy rights / permanent housing: Individuals can keep their housing as long as they pay the rent and don't violate terms of a lease or rental agreement. They control their unit, are responsible for paying rent, and hold the lease in their own name.

- Services are recovery-oriented and adapted to the needs of individuals: In particular, clients can accept or refuse treatment and support services without losing their housing. Services are flexible and may change over time.

Housing first is a supportive housing approach for homeless persons in which individual housing is offered without pre-requisites, such as sobriety or receipt of psychiatric medications. The very successful Pathways to Housing in NYC uses the approach with ACT teams serving scatter site

housing but it is also used in integrated housing developments. CSH refers to this model as "low demand" housing.

Mixed integrated housing. Another newer approach focuses on rehabilitating buildings and offering affordable housing to a mix of formerly homeless persons and low income workers. Common Ground has created more than 2,000 units of permanent and transitional housing near NYC and recently received funding for 1000 such units in NYC.

To complicate matters, the term "supportive housing" is sometimes used very broadly, often encompassing the entire residential continuum. In New York City, for example, where several major studies were conducted, the term has been applied to transitional housing, or congregate living situations where meals are provided, as well as to buildings in which tenants have their own apartment but all residents are mentally ill, and to more independent settings. The staff may be housed on site as opposed to off-site. In California, programs in the Community Residential Treatment System continuum may be considered supportive housing in this broad sense and even board and care programs would fit some definitions.

We will use the following terminology:

> Housing as housing = *supported housing*
>
> Developing and staffing new housing units for homeless persons or those at risk of homelessness= *integrated housing development*
>
> Placing persons as tenants in integrated housing developments without sobriety or treatment prerequisites= *Housing First*
>
> Broad range of less intense to intensive residential settings for persons who are homeless = *supportive housing*

In this review, the primary focus is supported housing. We attempt to clarify the nature of the housing and support included in each study, but there are many overlaps in practice between what seem initially to be conceptually distinct models.[8]

Target group:

Supported housing is intended to aid persons with psychiatric disabilities who would otherwise have difficulty accessing or maintaining independent living situations. Integrated housing developments are typically targeted at chronically homeless individuals but the Housing First model of supported housing also targets homeless persons.

Measures of effectiveness:

The primary measure is housing stability, but other objective factors have been studied including hospitalizations, improved social skills, broader social networks, more community participation, reduced symptoms, neurocognitive functioning, higher quality housing, and cost savings. Qualitative outcomes include quality of life, perceptions of choice, empowerment. A key question is what control group is relevant for scatter site supported housing. It has been

compared to persons living in shelters or homeless, to persons living in a continuum of residential programs, and to integrated housing development. Thus there is potentially a bewildering array of possible outcomes and comparisons.

Evidence supporting Supported Housing

Systematic reviews

A. The Cochrane Review undertook a meta-analysis of randomized controlled trials of either supported or supportive housing in 2001, but reviewers were unable to find studies that met their criteria.[9]

B. Rog[10] reviewed the literature in 2004 using criteria for strength of evidence established by the Texas Department of Mental Health. In Appendix I we show her table summarizing the studies and major outcomes of each study. Her conclusions are:

- There is strong evidence (5 published studies with rigorous designs) that supportive housing (in general) is associated with housing stability and reduced hospitalization. Virtually all of these studies compared supportive housing with usual services for homeless persons.

- There is more limited evidence (less than 5 studies with rigorous designs) regarding which type of supported/supportive housing is most effective. In fact a number of studies have found inconsistent differences among various types of housing or types/degree of support. For example McHugo[11] and also Goldfinger[12] found group settings to provide more stable housing than supported housing. But Tsemberis[13] found supported housing to be more effective in producing residential stability than a residential continuum.

- It does seem to be critical that a Section 8 or Shelter Plus Care voucher or other guarantee that housing will be affordable is part of the housing design. While there is no one type of support (case management, ACT, or other design) that is superior to others, it does appear that staff/client caseloads of 1/20 are highly desirable.

- There is level three (published studies with pre post or other less rigorous designs) for cost savings due to supportive housing. The largest of these studies was Culhane's comparison of persons receiving a wide range of supportive housing with those who were in shelters at the same time.[14] Because persons who are homeless or not stably housed used far more hospital days and jail days, the cost to the public was only slightly more for those receiving supportive housing.

- Level three evidence also exists for findings that suggest consumers prefer independent, permanent and integrated housing. Satisfaction is greater in this type of housing, and when individual choice and needs are matched with the appropriate setting.[15]

C. A Nelson and colleagues review in 2007[16] focused on residential and support options for serving the homeless. Appendix I presents a table with 16 controlled studies (7 with randomized controls and all but one including some housing option).

- Six studies compare some form of permanent housing with “standard care.” Permanent housing is far more effective, with an average effect size of .67.
- Three studies compare case management and housing with case management alone, finding the combination more effective. (The effect size in the Rosenheck study is .37. However, Clark and Rich[17] argue that case management alone is effective for persons with low or moderate symptoms or substance use.)
- Only one study (Goldfinger[18]) compared group residential with supported housing, finding no difference in housing measures. (See also the McHugo study cited above, which compared hybrid models but did not find an advantage for scatter site housing.)
- Three studies found a better quality of life in supported housing, including fewer housing problems, a higher subjective quality of life regarding one’s housing, and more choice and control over one’s housing those who did not have access to the housing program.[19]
- Four studies found housing and support to also reduce hospitalization and jail.
- No studies consistently found improvements in symptoms or substance abuse associated with housing/services unless substance abuse services were part of the model.

D. The Housing First Model.

In the past five years Housing First has been instituted in a number of cities, both in scatter site and integrated housing development models. A primary reason is the poor luck that traditional approaches have had—which condition housing on acceptance of treatment, particularly substance abuse treatment. (See Rog, 2004, cited above.) Findings from the best of these programs are described below.

E. Evidence regarding adaptability to special populations

- Persons with co-occurring disorders

  As noted above (Rog and Nelson reviews), many studies have found persons with substance abuse problems do less well with housing interventions than those with out a co-occurring disorder.

  The McHugo and colleagues’ randomized experiment for homeless persons with co-occurring disorders in Washington DC favored integrated housing services over “parallel” (scatter site) housing in days of stable housing, reduction of psychiatric symptoms, and life satisfaction, especially for male participants.[20]

The Housing First approach yields a different pattern of findings. In Pathways to Housing 90% are dually diagnosed and outcomes are not better or worse for these persons. Compared to comparison group members, Pathways to Housing participants are less likely to access substance abuse treatment but no more likely to have symptoms, less likely to be using alcohol heavily, and equally likely to be using drugs heavily.[21]

- Criminal justice

The NY/NY study (Culhane) also looked at the impact of prior shelter use on outcomes when persons were released from prison. Persons with mental illness had higher reincarcerations as did those who used the shelter system again. The authors conclude that focusing on housing stability in a relatively small percentage of those released could significantly reduce reincarcerations.[22] Several other studies have shown housing instability to be linked to higher contact with criminal justice officials, especially for prisoners returning to the community.[23]

AB2034 programs are California-specific programs of intensive case management for homeless individuals or those at high risk. In Los Angeles in particular, persons targeted were those with severe mental illness being released from jail. Not all these programs included housing. The report to the Legislature[24] cites these statistics:

- Number of consumers incarcerated decreased 58.3%
- Number of incarcerations decreased 45.9%
- Number of incarceration days decreased 72.1%

- HIV

There is some evidence that housing instability (homelessness) increases HIV risk behaviors and utilization of emergency departments and inpatient hospitalization.[25]

F. Service patterns

- Pathways to Housing is a very successful program, so it is useful to see what services the program provides. Clients must agree to once a week visits to assure safety. There is an ACT team with 24/7 coverage. Transitional employment is also provided (20% are working or in school). About 70% participate in some form of treatment for substance abuse. For 450 participants, staffing is: 4 staff responsible for housing services, 40 service coordinators, 6 team leaders, 3 psychiatrists, 3 nurse practitioners, 3 nurses, 2 vocational specialists, and 2 clinical directors. Consumers make up 30% of the staff.[26] Note that in a Housing First model that values consumer choice the ACT team principles must change somewhat.[27]

- Some programs include employment and education program opportunities linked to the housing.
- Attempts to provide supported housing with staff to client ratios of less than 1:20 can result in neglect and lack of coordination between landlord and service provider.[28]
- Some programs (e.g., LAMP in Los Angeles) have used a respite/crisis program to help re-stabilize clients and get them back into their apartment

G. What outcomes can you expect?

For supported/supportive housing programs in general, as calculated by Nelson (op cit.) the effect size (how much better the experimental program is than the comparison) is in the range of .65 regardless of the type of comparison.

The results below are taken from the Pathways to Housing randomized control study comparing a Housing First model with a continuum model over 36 months. Differences at each time period are statistically significant.

Figure 1: Proportion of time stably housed (Pathways to Housing)

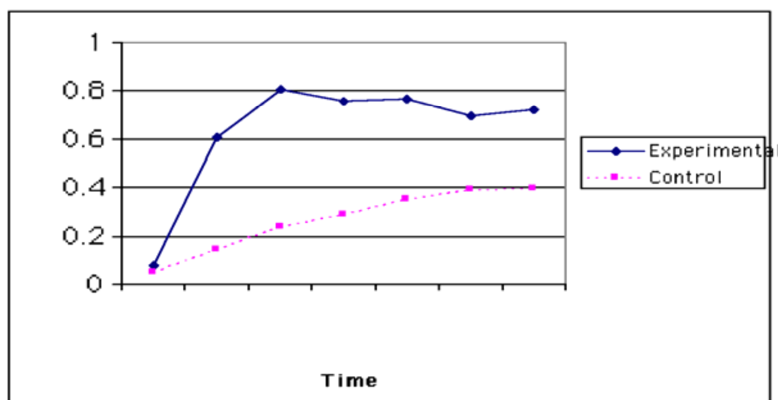
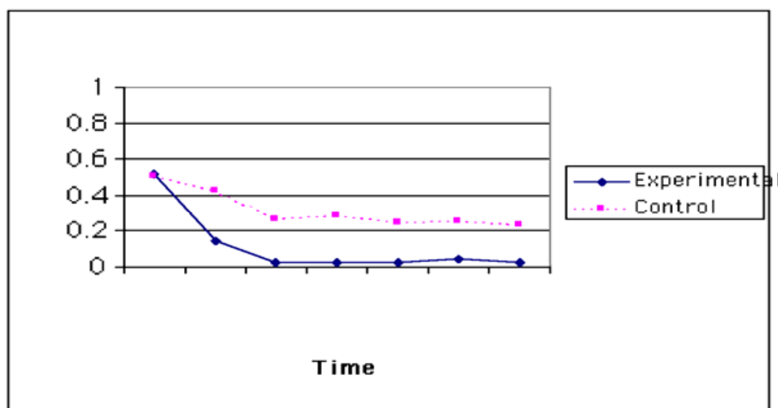


Figure 2: Proportion of time literally homeless (Pathways to Housing)



Capsule Summary of Evidence: Effective, Efficacious, Promising, or Emerging, Not Effective, or Harmful[29]

Effective compared to usual services with respect to increasing housing tenure and stability and reducing hospitalization and jail stays.

Effective on housing variables compared to case management or ACT alone, at least for persons with severe impairment.

Effective in the Housing First variant.

Promising compared to usual services with respect to quality of life, quality of housing, and other subjective factors.

Promising compared to usual services with regard to cost offsets. Several studies have found significant cost offsets of providing housing and services. Hospital, ER, emergency transport and jail are the main sources of cost reductions. There is some inconsistent evidence from San Francisco[30], and study designs have not been rigorous or the alternative services always clearly defined. There is some evidence that the costs and cost offsets vary greatly by where the homeless persons were recruited (hospital or street) and that over two years initial cost differences are attenuated.[31]

Methodological problems and gaps in the research[32]

- Weak evaluation designs (few randomized controlled trials, lack of fidelity scales, unclear models being tested, no uniformity in alternative condition).

- “A common language has failed to emerge.” [Supported vs. supportive]

- There is little similarity of outcomes measured across studies. In general, housing varies on these dimensions: a) resident choice and control, b) physical quality/habitability, c) privacy, d) the concentration of consumers in the housing, e) location, and f) safety. These variables have not been considered consistently in research.[33]

- A wide range of housing types is needed, but there is little evidence of which types are best for which clients.

Other unresolved issues.

- Many studies document that clients value choice and autonomy in housing.[34] And some provide evidence that if choice is provided it reduces some negative outcomes (such as psychiatric symptoms[35]). However, other studies have indicated that independent units (which most persons choose if they have the choice) are associated with higher rates of feelings of isolation and depression and anxiety.[36] Negative effects may be more likely among older persons living independently.

Information regarding implementation

Fidelity

The Pathways to Housing program is developing a fidelity scale.

Extent of implementation

The 2004 New Freedom President's Commission on Mental Health recommended the creation of 150,000 units of integrated housing developments to end chronic homelessness among persons with mental disorders and their families. HUD set a goal of creating 40,000 units between 2005 and 2009. States and other localities have also made ambitious plans. Between 2002 and 2006, 37,500 units of permanent supportive housing were created through the McKinney-Vento Homeless Assistance Grants Programs, target at persons with mental health and substance abuse problems. The Corporation for Supportive Housing estimates there may be an equal number funded through other means, but there is no centralized data.[37] At the same time housing policies under the Bush administration have resulted in the loss of at least 150,000 housing vouchers and their redirection toward higher income less-disabled persons. And the number of new rental units for disabled persons under Section 811 declined by 25% between 2002 and 2006.[38]

No information was found on the extent of implementation of different models of supportive housing.

A number of communities began moving from a continuum model to supported housing in the 1990s. These programs were not oriented toward the homeless per se, but toward replacing one model of services and housing with another.[39] A number of these programs are described at: http://townhall.townofchapelhill.org/homelessness/plan/d-housing_first_best_practices.pdf

Barriers to implementation

The primary barrier is financial, as housing vouchers and new affordable housing units are in decline. A secondary barrier is attitudes about the relationship of treatment and housing that are holdovers from an earlier period (such as believing recovery is not possible for persons still using alcohol or other drugs or that recovery is not possible for persons who don't admit their mental illness). A insidious aspect of this barrier is the feeling by many staff that "we already do that."[40]

Costs

- Pathways to Housing cites a $22,000 cost per client per year.

- Culhane's study found a cost of about $13,570 per person per year, however, there was a reduction in health, corrections and shelter costs of $12,145. So the net cost (from a societal perspective) is $1,425 per year per person. Per placement it is closer to $6,000.[41] Note that a very wide range of "supportive" housing was included, including transitional and congregate living.

- Rosenheck summarized the results of a number of studies, finding that service costs increased modestly as did favorable housing outcomes.[42] Offsets in use of other public services were not measured.

Information available for assisting in implementation of Supported Housing

- Information on *supported housing* and *integrated housing development.* The Corporation for Supportive Housing website has many resources available. http://www.csh.org/

- Among many other documents and toolkits resources include a "how to" manual for accessing Mental Health Services Act funds for integrated housing development. http://www.csh.org/index.cfm?fuseaction=page.viewPage&pageID=3656&nodeID=81

- *Information on ACT-supported Housing First (Pathways to Housing model)* http://www.pathwaystohousing.org/Articles/Research.html

  - Resources include a variety of training videotapes.

  - For more information on trainings related to housing-linked ACT contact: Pascale Jean-Noel, Director, or Margaret Kaczorowski, Program Assistant actinst@pathwaystohousing.org

  - For more information related to Housing First trainings: info@pathwaystohousing.org

  - Note that trainings on site of 1-2 days, or a week are available, as are 9-12 month teleconference trainings. Technical assistance is also available. Dr. Sam Tsemberis for further information, 212-289-0000 ext. 1101

- *In Los Angeles, Beyond Shelter uses a Housing First model and has a variety of resources and trainings available.* http://www.beyondshelter.org/home.html

- A recent federal report on nine Housing First models, including three in California, is available. A range of models is included, from Pathways to Housing to integrated housing development approaches. The San Francisco Direct Access to Housing program has 876 units. For a description see: *The Applicability of Housing First Models to Homeless Persons with Serious Mental Illness Final Report* http://www.huduser.org/Publications/pdf/hsgfirst.pdf

End Notes

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2 Both the Americans with Disabilities Act (ADA) and the U.S. Supreme Court's 1999 decision in Olmstead v. L.C. require that individuals with disabilities be permitted to live and work in the least restrictive setting—which includes housing.
3 The Mental Health Services Act Housing Toolkit. Available at: www.dmh.cahwnet.gov/Prop_63/MHSA/docs/resource_listings/MHSAToolkit-Final.pdf
4 Lipton, ibid.
5 Hopper, K., & Barrow, S. M. (2003). Two genealogies of supported housing and their implications for outcome assessment. Psychiatric Services, 54(1), 50-54. In a related fashion, The Cochrane Review of supported housing distinguishes between "designated supported housing" in which there are individual tenancies in a single building with staff on site, and "outreach" models in which individuals have tenancy and are supported by case managers.
6 Hopper and Barrow, op cit.
7 Mental Health Services Act Housing Toolkit, op cit.
8 The Cochrane review distinguishes between "designated supported housing" in which there are individual tenancies in a single building with staff on site, and "outreach" models in which individuals have tenancy and are supported by case managers. McHugo and colleagues describe the empirical overlap this way: "Modern continuum housing programs incorporate many of the philosophical and technical underpinnings of the supported housing model. Supported housing programs are impractical in many settings because of the shortage of decent, safe low-income housing. Consequently, hybrid programs are the norm today; few programs resemble those specified by the two models." McHugo, G. J., Bebout, R. R., Harris, M., Cleghorn, S., Herring, G., Xie, H., et al. (2004). A randomized controlled trial of integrated versus parallel housing services for homeless adults with severe mental illness. Schizophrenia Bulletin, 30(4), 969-982. CSH-funded sites may even be hybrids that include, in one site, both supportive housing units and regular rental units.
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11 McHugo, G. J., Bebout, R. R., Harris, M., Cleghorn, S., Herring, G., Xie, H., et al. (2004). A randomized controlled trial of integrated versus parallel housing services for homeless adults with severe mental illness. Schizophrenia Bulletin, 30(4), 969-982. Rog cites an earlier unpublished version of this study.
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http://www.nhi.org/online/issues/152/notsosupportive.html A Philadelphia study looked at those who left supported housing. Three fifths left for positive reasons (move to better housing), and two-fifths for negative (with subsequent negative consequences.) Wong, Y.-L. I., T. R. Hadley, et al. (March 2006). Predicting Staying In or Leaving Permanent Supportive Housing That Serves Homeless People with Serious Mental Illness Philadelphia, University of Pennsylvania Center for Mental Health Policy and Services Research
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Appendix 1: Evidence Summaries circa 2000 and 2004

Rog, D. J. (2004). The evidence on supported housing. *Psychiatric Rehabilitation Journal, 27*(4), 334-344.

TABLE 1—SUPPORTED/SUPPORTIVE HOUSING OUTCOME STUDIES REVIEWED

Study Author(s), Year	Design	Improvements Over Time				Housing Condition Difference?
		Tenure	Homeless	Hospital	Other	
Bebout et al. (2001)	RA/*SH vs. Continuum Housing*	Y	Y	Y	Y	Y – in favor of Continuum Housing vs. SH
Goldfinger et al. (1999)	Randomized *SH vs. Staffed Group Homes (ECH)*	Y	Y	Y	N	Y – in favor of Supported Housing vs. Range
Susser et al. (1997)	Randomized *Broad spectrum of housing withor without CTI*	Y	Y	—	—	Y – in favor of CTI
Hurlburt, Hough, and Wood (1996)	Randomized *Four Section 8 and CM combinations*	Y	—	—	—	Y – in favor of groups with access to Section 8, regardless of CM approach
Lipton et al. (1988)	Randomized *NY/NY Housing vs. status quo*	—	Y	Y	—	Y – in favor of Program Housing
CMHS Housing Initiative Steering Committee (2002)	Multi-site (6 sites) Cross-site Quasi-Experiments *SH vs. Group homes, supervised apartments*	Y	Y	Y	Y	N
Tsemberis and Eisenberg (2000)	QE/*SH vs. SROs, community residences, other*	Y	—	—	—	Y – in favor of Supported Housing vs. Range
Lipton et al. (2000)	Quasi-Experiment *NY/NY Supportive Housing of various intensities (structure and independence)*	Y	—	—	—	N
Culhane et al. (2002)	Quasi-Experiment *SH vs. Matched controls (not in housing)*	—	Y	Y	Y	Y – in favor of Supportive Housing vs. status quo
Kasprow et al. (2000)	*Longitudinal*	Y	—	—	Y	

Nelson, G., Aubry, T., & Lafrance, A. (2007). 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. *American Journal of Orthopsychiatry, 77*(3), 350-361.

Characteristics of Studies of Housing and Support Interventions

Study	Study location	Sample size	Control or comparison group	Experimental group	Study type	Comparable groups at baseline
Dickey et al. (1996); Dickey, Latimer, Powers, Gonzalez, & Goldfinger (1997); Goldfinger et al. (1997); Goldfinger et al. (1999)	Boston	C: 63 E: 55	Evolving consumer households—group living	Supported housing, independent living	Experimental	Yes
Hurlburt, Wood, & Hough (1996)	San Diego	C1: 90 C2: 91 E1: 90 E2: 91	No Section 8 certificate with comprehensive (C1) or traditional case management (C2)	Supported housing: Section 8 certificate with comprehensive case management (E1) or traditional case management (E2)	Experimental	Yes
Lipton, Nutt, Sabatini (1988)	New York	C: 23 E: 26	Standard treatment	Residential treatment	Experimental	Yes
Rosenheck, Kasprow, Frisman, & Liu-Mares (2003)	San Francisco, San Diego, New Orleans, Cleveland	C1: 90 C2: 188 E: 182	No Section 8 certificate with case management (C1) or standard treatment (C2)	Supported housing: Section 8 certificate with intensive case management	Experimental	Yes
Conrad et al. (1998)	Chicago	C: 180 E: 178	Standard treatment	Case-managed residential treatment (11-month program consisting of case management, residential housing, substance abuse counseling, vocational services, housing placement, self-help)	Experimental	Yes
Greenwood, Schaefer-McDanile, Winkel, & Tsemberis (2005); Gulcur, Stefancic, Shinn, Tsemberis, & Fischer (2003); Tsemberis, Gulcur, & Nakae (2004); Tsemberis, Moran, Shinn, Asmussen, & Shern (2003)	New York	C: 119 E: 87	Residential continuum	Pathways Supported Housing: supported housing and ACT	Experimental	Yes
Burnam et al. (1995)	Los Angeles	C: 65 E1: 67 E2: 144	Standard treatment	Social model residential program providing integrated mental health and substance abuse treatment (E1) or community-based nonresidential program using the same social model (E2)	Experimental	Yes
Tsemberis (1999); Tsemberis & Eisenberg (2000)	New York	C: 3,811 E: 139	Residential continuum	Pathways Supported Housing—supported housing and ACT	Quasi-experimental	No
Drake, Yovetich, Bebout, Harris, & McHugo (1997)	Washington	C: 59 E: 158	Standard treatment	Residential treatment (case management, substance abuse treatment, housing)	Quasi-experimental	No
Clark & Rich (2003)	Florida	C: 69 E: 83	Case management	Comprehensive housing and case management	Quasi-experimental	No

Note. C = control or comparison group; E = experimental group.

Effect Sizes for Housing Outcomes for Housing and Support Intervention Studies

Study	Longest follow-up period[b]	Housing outcome measure	Effect Size
Permanent housing and support[a] versus standard care			
Hurlburt, Wood, & Hough (1996)	24	Proportion living in independent housing	.57
Lipton, Nutt, & Sabatini (1988)	12	Proportion living in permanent housing	.79
Rosenheck, Kasprow, Frisman, & Liu-Mares (2003)	36	Number of days housed (past 90 days)	.51
Tsemberis (1999); Tsemberis & Eisenberg (2000)	60	Proportion continuously housed	.92
Greenwood, Schaefer-McDanile, Winkel, & Tsemberis (2005); Tsemberis, Gulcur, & Nakae (2004)	24	Proportion of time in stable housing	.77
Drake, Yovetich, Bebout, Harris, & McHugo (1997)	18	Number of days in independent housing (past 60 days)	.46
Average effect size			.67
Permanent housing and case management versus case management only			
Hurlburt et al. (1996)	24	Proportion living in independent housing	Unable to compute
Rosenheck et al. (2003)	36	Number of days housed (past 90 days)	.37
Clark & Rich (2003)	12	Proportion of time in stable housing	Unable to compute
Average effect size			.37

[a] Support involves either some form of support or case management. [b] Given in months.