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Identifying Variability in Permanent Supportive Housing: A comparative effectiveness approach to measuring health outcomes

Julia Dickson-Gomez¹, Katherine Quinn¹, Arturo Bendixen², Amy Johnson³, Kelly Nowicki³, Thant Ko Ko⁴, and Carol Galletly¹

¹Center for AIDS Intervention Research (CAIR), 2071 North Summit Ave. Milwaukee, WI 53202
Medical College of Wisconsin, Milwaukee Wisconsin

²Center for Housing and Health, Chicago, Illinois

³AIDS Foundation of Chicago, Chicago, Illinois

⁴Institute for Public and Community Health, Medical College of Wisconsin, Milwaukee

Abstract

Supportive housing has become the dominant model in the United States to provide housing to chronically homeless and to improve their housing stability and health. Most supportive housing programs follow a “housing first” paradigm modeled after the Pathways to Housing program in New York City. However, components of housing first supportive housing models were poorly defined and supportive models have varied considerably in their dissemination and implementation to other parts of the country. Recently, research has been conducted to determine the fidelity by which specific housing programs adhere to the Pathways Housing First model. However, evidence regarding which combination of components leads to better health outcomes for particular subpopulations is lacking. This paper presents results from qualitative interviews with supportive housing providers in the Chicago Metropolitan area. Supportive housing varied according to housing configuration (scattered-site versus project-based) and service provision model (low-intensity case management, intensive case management and behavioral health) resulting in six basic types. Supportive housing programs also differed in services they provided in addition to case management and the extent to which they followed harm reduction versus abstinence policies. Results showed advantages and disadvantages to each of the six basic types. Comparative effectiveness research may help identify which program components lead to better health outcomes among different subpopulations of homeless. Future longitudinal research will use the identified typology and other factors to compare the housing stability and health outcomes of supportive housing residents in programs that differ along these dimensions.

Julia Dickson-Gomez corresponding author, jdickson@mcw.edu, 414-955-7774.

This article summarizes differences in supportive housing programs for the chronically homeless in the Chicago area. Results suggest that there are advantages and disadvantages to different program components and that further research is needed to determine their effects on health.

Keywords

Supportive housing; housing first; homelessness; substance use; mental health; housing; harm reduction

A growing body of research indicates that supportive housing is an effective structural intervention to improve the physical and mental health of homeless individuals. Homeless persons are more likely to suffer from severe mental illness (SMI), substance use problems, infectious and non-infectious diseases (Pecoraro et al., 2013; Poulin, Maguire, Metraux, & Culhane, 2010; Royal et al., 2009). Supportive housing has become the dominant model in the US for providing housing and services to the chronically homeless through the Department of Housing and Urban Development (HUD) (Dunn, van der Meulen, O'Campo, & Muntaner, 2013; Kresky-Wolff, Larson, O'Brien, & McGraw, 2010; Kuehn, 2012; Levitt et al., 2012; Watson, Wagner, & Rivers, 2013). Between 2006 and 2010, the number of available supportive housing units increased from 176,830 to 236,798 (Kuehn, 2012). Such programs generally follow a "Housing First" or harm reduction philosophy in which residents are first offered permanent and affordable (generally subsidized) housing with supportive services and were modeled from the Pathways to Housing program in New York City. Pathways to Housing was developed as an alternative to prevailing Continuum of Care models in which mentally ill or substance abusing individuals were required to "earn" access to housing by completing treatment programs and achieving sobriety (Tsemberis, Gulcur, & Nakae, 2004; Tsemberis, Moran, Shinn, Asmussen, & Shern, 2003). Consumers of the old model were in constant threat of losing their housing if they were unable to maintain sobriety or refused to participate in prescribed services. Not surprisingly, many potential consumers were unable to obtain housing in the continuum of care model, and many others were unable to maintain housing (Dunn et al., 2013; Tsemberis et al., 2004; Tsemberis et al., 2003).

An early body of research demonstrated the superiority of Housing First supportive models compared to traditional continuum of care housing. Formerly homeless people are able to remain housed for 6 months to years if provided with supportive housing following a Housing First approach compared to a continuum of care (Hwang et al., 2011b; Lipton, Siegel, Hannigan, & al., 2000; Slesnick & Erdem, 2013; Wolitski et al., 2010). Further, Housing First model supportive housing residents report improved quality of life (Gulcur, Stefancic, Shinn, Tsemberis, & Fischer, 2003; Hwang et al., 2011a; Tsemberis et al., 2004), reductions in substance use (Collins, Malone, et al., 2012), and reductions in incarcerations (Clifaseli, Malone, & Collins, 2013) compared to those housed in continuum of care models.

As supportive housing programs have expanded across the country, little research has explored the fidelity with which the Pathways Housing First model has been implemented in practice, although some research suggests that the lack of clear guidelines for replication has led to significant departures from the model (Tabol, Drebing, & Rosenheck, 2010; Watson, Wagner, et al., 2013). The initial Pathways Housing First paradigm included scattered-site housing in which consumers lived in their own free-market rental housing. Scattered-site housing is thought to provide consumers choice in their housing and to allow them to

mainstream into community settings. Other components of the Pathways Housing First model include consumer choice in terms of whether or not to engage in supportive services, use of Assertive Community Treatment (ACT), separation of housing management and supportive services, and a harm reduction philosophy in which consumers are not required to achieve sobriety and are placed into housing as quickly as possible. However, qualitative research of the Federal Collaborative Initiative to Help End Chronic Homelessness (CICH) found great diversity in supportive housing programs which diverge in many ways from the Pathways model. One of the starkest differences identified was in housing configuration with many programs using project-based models in which residents all reside in a single building as opposed to Pathway's scattered-site housing approach. Project-based housing may preclude consumers' integration into the community and their choice of housing. Programs also differed in the extent to which housing management and supportive services were separated (Kresky-Wolff et al., 2010). Other differences between the Pathways model and later replications include the extent to which supportive housing programs follow a harm reduction philosophy or required abstinence (Dickson-Gomez, Convey, de Moura Castro, Corbett, & Weeks, 2007; Owczarzak, Dickson-Gomez, Convey, & Weeks, 2013). Programs also vary in the way services are delivered with replications of the model using single case managers, or group-intensive peer support as opposed to the ACT used in the Pathways model (Henwood, Padgett, & Tiderington, 2012; Owczarzak et al., 2013; Slesnick & Erdem, 2013; Tsai & Rosenheck, 2012). In addition, the types of services provided directly by supportive housing programs vary with some models providing substance abuse treatment, on-site nursing, living skills groups, and other services while others include only basic case management services (Owczarzak et al., 2013).

Recent research has attempted to assess the fidelity to which supportive housing programs conform to a Housing First model in order to assess the extent to which health outcomes can be attributed to components of the model (Gilmer et al., 2014; Gilmer, Stefancic, Sklar, & Tsemberis, 2013; Macnaughton et al., 2015; Nelson et al., 2014; Watson, Orwat, Wagner, Shuman, & Tolliver, 2013; Watson, Wagner, et al., 2013). Two different approaches to measuring housing fidelity have been pursued. In the first, a fidelity measure has been developed to determine the extent to which programs follow the Pathways Housing First model, which includes both self-report survey items and observational checklists that include all items in the original model such as residing in scattered site apartments, an ACT team, and separation of housing and services among others (Gilmer et al., 2014; Gilmer et al., 2013; Macnaughton et al., 2015; Nelson et al., 2014). In the second approach, Watson and colleagues used a bottom-up approach to determine key components of Housing First models by conducting qualitative in-depth and focus group interviews with providers of four supportive housing programs that were identified by the community of housing providers as good examples of Housing First programs (Watson, Wagner, et al., 2013). They found the following components to be critical to program success which were subsequently translated into survey items that were tested for reliability and validity: 1) a low-threshold admissions policy; 2) harm reduction; 3) eviction prevention; 4) reduced service requirements; 5) separation of housing and services and 6) consumer education (Watson, Orwat, et al., 2013; Watson, Wagner, et al., 2013).

However, in many ways measurement of fidelity to Housing First components, whether those originally implemented in Pathways or those identified by service providers, is premature. While compelling, research supporting the effectiveness of supportive housing is somewhat limited (Bentson, 2015; Schiff & Schiff, 2014). In fact the majority of research studies on the effectiveness of supportive housing on health outcomes and housing stability includes Pathways as one of the study sites (Schiff & Schiff, 2014). Such evidence cannot yet tell us which key components account for the success of Pathways or other supportive housing programs. Rather than measuring fidelity to the original model, a more informative design would be to compare the effectiveness of supportive housing programs that differ in several characteristics in fostering the housing stability and health of residents with differing characteristics, such as mental illness, HIV or other chronic health conditions, and substance use (Clark, Young, Teague, & Rynerarson-Moody, 2016).

In fact, there is some reason to believe that there may be advantages and disadvantages to different housing configurations and other program characteristics that are common among different supportive housing programs. Qualitative research conducted on the CICH programs found that differences in housing configuration were associated with the amount of time case managers and other supportive service providers could spend with clients. For example, scattered-site programs without housing specialists reported spending much of their time negotiating with landlords and finding affordable housing for participants rather than offering services (Kresky-Wolff et al., 2010). Similarly, in some scattered site programs in areas where public transportation was inadequate, caseworkers reported spending much time traveling to clients and transporting them to appointments. On the other hand, while service providers in project-based supportive housing units liked the ease of providing services to clients, some clients complained about having to accommodate other clients' behaviors (Kresky-Wolff et al., 2010). This can be particularly problematic for clients who wish to remain sober but may be surrounded by drug and alcohol use in project-based supportive housing (Collins, Clifaseli, et al., 2012).

While there is an overall lack of evidence regarding which combination of program components work best to ensure the housing stability and health of residents, recent policy recommendations have made it difficult to try to match homeless persons with differing physical and mental health problems to the permanent supportive housing (PSH) models that best meet their needs. HUD has recommended the establishment of centralized outreach and referral for housing providers to ensure that the most vulnerable are prioritized in receiving supportive housing. In Chicago, this resulted in the establishment of a Centralized Referral System (CRS) which includes outreach to the homeless, and their placement on a referral list. Priority is given to the homeless who score highest on a vulnerability index which includes such things as age, the duration of their homelessness and whether they have other disabling conditions.

In this paper, we present results from in-depth interviews with directors and front-line service providers from 30 agencies that provide a variety of supportive housing programs to formerly homeless persons in the Chicagoland area to generate supportive housing typologies and to explore the perceived benefits and drawbacks of different program

characteristics. We propose a “comparative effectiveness” model to determine the key components of supportive housing for different populations.

METHODS

Participant recruitment, data collection and analysis were conducted by teams at the Center for AIDS Intervention Research (CAIR) at the Medical College of Wisconsin, and the AIDS Foundation of Chicago (AFC) and the Center for Housing and Health (CHH). All study protocols were approved by the Institutional Review Board of the Medical College of Wisconsin.

Eligibility and Recruitment

Information about the study was disseminated to 30 agencies that provided supportive housing programs in the Chicago metropolitan area via an in-person presentation. This meeting was followed by an email communication to project directors who were asked to identify an administrator and a case manager within their organizations who could answer questions about the history of the organization, and characteristics of the various programs including types of housing, service delivery, and populations served. No organizations refused to participate. Participants were eligible to participate if they worked in one of the agencies that provide PSH in the Chicago metropolitan area and were able and willing to provide informed consent.

Potential participants were contacted by email, followed by a phone call. They were informed that they were free to refuse to participate in the study, that their decision to participate or not would not be shared with their employer or affect their employment in any way. If potential participants described an initial willingness to participate, an interview time convenient to the participant was scheduled for a face-to-face interview. We conducted interviews with 65 individuals: 32 directors and 33 case managers with at least two individuals per agency participating. Most case managers and directors had backgrounds in social work, social service administration or psychology, with most having achieved Master's degrees in social work or psychology. Nine had bachelor's degrees in social work, psychology or education, and one case manager had an associate's degree. The amount of time participants had worked in supportive housing ranged from a couple of months to 32 years (mean 10.3 years, s.d. 8.9 years).

Written informed consent was obtained from all participants prior to conducting in-depth interviews. Interviews lasted between 60 and 90 minutes and followed a semi-structured guide covering the following topics: the history of the organization; the participants' role within the organization; types of housing configuration; services provided including case managers' work load; populations served; the extent to which a harm reduction philosophy is followed when substance use or psychiatric symptoms were considered problematic; and challenges and successes in providing supportive housing. Interviews were conducted by research staff trained in qualitative interviewing by the first author and Principal Investigator of the project, a medical anthropologist.

Data analysis

Data analysis was performed using two different approaches. First, we performed a qualitative content analysis based on an iterative consensus method (Armstrong, Gosling, Weinman, & Marteau, 1997) in order to identify key components that differentiated supportive housing programs. This was done in two stages. First, four members of the research team (JD, KQ, MB and JR) were assigned 5 transcripts to review in-depth. Each independently generated a list of codes and attached these to segments in the transcript. Then the four coders met face to face to compare their list of codes, consolidating similar themes into single codes and agreeing on the most appropriate label for the theme. This process was repeated two more times until all members felt they had reached thematic saturation as in axial coding (Glaser & Strauss, 1967). Themes included components of supportive housing programs such as caseworker to client ratio, type of housing configuration, harm reduction philosophy, funding, and participant characteristics. Remaining interviews were coded using MAXQDA qualitative analysis software by KQ, with a Ph.D. in public health, and JR and TK, doctoral students in public health. KQ and JR reviewed 20% of the remaining coded interviews to ensure consistency in the coding. Disagreements were resolved by consensus.

In the second phase of coding, we used the constant comparative method characterized by repeated coding, interpretation and analysis (Boeije, 2010). Coded segments were compared within and across organizations. We used the themes identified in interviews and components that varied in the literature on supportive housing to identify components that differed among different supportive housing programs. To help visually represent differences, we created a matrix for each agency and each supportive housing program within the agency that included data on key components such as housing configuration (scattered site or project based); caseworker to client ratio; client characteristics (veteran, dual diagnosis, women, HIV positive), other services provided (employment, health, substance use treatment); whether there was 24-hour access to supportive housing staff; frequency of contact with residents; and whether ACT or CST was used. Details that were not clear from initial interviews were obtained through follow-up phone calls with supportive housing staff. Matrices were then analyzed to determine patterns of relationships among different housing components, i.e. components that seemed to occur together across many programs versus components that seemed to vary more randomly across programs that varied on other characteristics. We came up with an initial typology of supportive housing programs based on this analysis which we then presented to supportive housing providers by email or through an oral presentation at an annual meeting, a type of “member check” of our initial interpretations (Byrne, 2001). Feedback from supportive housing providers was incorporated into the final typology and definitions. Finally, we used the constant comparative method to explore providers’ perceptions of the advantages and challenges to implementing the type of supportive housing programs they provided. Emblematic quotes were selected to represent common opinions.

RESULTS

Results from our in-depth interview indicate that there are six basic types of Permanent Supportive Housing (PSH) in the Chicago metropolitan area. As shown in the rows of Table 1, supportive housing programs can be categorized as either *project based* or *scattered site*. Within these two broad categories, supportive housing can be distinguished by three different social services models all of which can be provided in project based or scattered site units. *Low intensity case management programs* are those in which face-to-face case management services are provided less than monthly and the case manager to client ratio is greater than 1:20, often times as high as 1:40 or 1:60. *Intensive case management* programs provide face-to-face case management more frequently. Client visits occur at least monthly and often as frequently as once a week. The case manager to client ratio has a maximum of 1:20, and most frequently is 1:15 or less. Finally, the *behavioral health model* is characterized by agencies that specialize in providing housing and case management services for the severely mentally or medically ill. These programs offer a range of health care, psychosocial and other services, many of which are provided by agency staff. Behavioral health or medical models can be further characterized by whether they use *clinical case managers*, *Community Treatment Services (CTS)* or *Assertive Community Treatment (ACT)*. *CTS* and *ACT* are team approaches and thus it is more difficult to specify a case manager to client ratio since a team of staff members often work with individual clients. Typically, the frequency of meetings between clients and members of the CST or ACT teams are once a week or more.

All the basic models can be further divided by whether they provide social or clinical services in addition to case management, and whether case management is provided 24 hours a day. Each of the six types described above can also differ in the extent to which they use a harm reduction approach. Although all PSH programs offer immediate housing upon referral from the Central Referral List without any preconditions of drug and alcohol abstinence or psychiatric treatment, PSH programs in Chicago do vary in the extent to which they use a harm reduction approach once participants are housed. We define *harm reduction* as programs that do not require residents to be abstinent from drug or alcohol use, or to comply with a psychiatric treatment program in order to maintain their housing.

Different supportive housing configurations are more common for different service delivery models than others (see Table 1). For example, in low-intensity case management, project-based housing is by far the most common type with 88% of the units being project-based. Intensive case management programs tend to be associated more frequently with scattered-site housing with 81% of the units scattered-site. These clusters of types are often due to logistics, as it may be more time consuming to track participants in scattered site housing thus necessitating lower case-manager to client ratios as we will see below. However, it is also due in part to differences in organizational philosophy which may stem from different organizations' histories and missions. Finally, as seen in Table 1, there are more supportive housing programs than supportive housing agencies. In other words, many agencies have more than one program and some of these programs would fit into different cells in the table. This is partly due to organizations' taking advantage of different funding opportunities as they become available, changes or expansions of mission over time, or agencies' recognition

that clients with varying needs require different types of housing. As mentioned, each of these models can differ in the extent to which they follow a harm reduction philosophy, and the intensive and low-intensity case management differ in terms of the extent to which they offer services besides case management. However, not only are there logistical and philosophical reasons for the differences in supportive housing models used, but there are in theory advantages and disadvantages to each of the models. It is not clear, a priori, that any model offers clear advantages over any other with the possible exception of embracing a harm reduction orientation. As will be seen below, while some supportive housing providers advocate for the need for sober living spaces for those who wish to abstain from drug and alcohol use, the central referral process and scarcity of housing resources means that in practice, people may accept abstinence housing because it is the only housing available, leading to housing instability for residents.

Housing configuration

PSH models can be project-based or scattered site regardless of the service provision model they use. Most Housing First advocates have argued for the superiority of scattered-site housing. Scattered-site housing ostensibly provides participants a choice in their housing, more independence, and better integration into their communities.

P: Our largest program is our community housing program, which is permanent, supportive housing, scattered site throughout the city of Chicago and the Lake county area.... It's a model that has really provided independence for clients and that also provides intensive case management services to the clients but they get to live independently in the unit that they choose.

In practice, however, these benefits are often more theoretical than real. PSH providers of scattered-site housing reported that fair market rents provided by HUD subsidies often did not cover rental costs in more desirable neighborhoods. For residents, neighborhood desirability was not about the relative affluence of the neighborhood but their proximity to family, distance from neighborhoods where they previously sold or used drugs, or closeness to transportation and needed services. Further, landlords in more affluent neighborhoods have little incentive to accept rental subsidies or supportive housing rents when they are likely to receive their rents from tenants with good credit histories and jobs. PSH providers also mentioned that many landlords would run criminal background checks and credit histories on potential residents, immediately disqualifying many of their PSH recipients from acceptance to these units. So, in reality, many PSH residents are limited to living in high crime and high poverty neighborhoods. Further, because many PSH providers find it difficult to find landlords that are willing to work with them, many PSH residents end up housed in the same building, even in scattered-site housing.

P: We certainly work really hard to develop relationships with landlords. I think one of the things that can become particularly challenging is that sometimes we'll find a landlord who will accept folks but they're probably living in not ideal conditions in that building. But we know that this person, perhaps, based on their criminal history, or credit check, or whatever it might be, is not going to get in anywhere else.... And the landlord knows us, and they know that if there's a problem we'll address it, and it's kind of a jumping off point with the goal, of course, is helping

people move somewhere better. But we, I know, [our agency] is currently hiring another housing locator. We need so much help with that. Because one of the concerns that I see is that at times we find a landlord who will accept our members, and then it's almost like we're re-institutionalizing people by all the same people being in that building. And so, the folks who are going into the building are people who maybe have some...vulnerabilities that will make it more challenging for them to be successful there.

The concern about re-institutionalizing people was particularly salient for this service provider since she worked for one of the "behavioral health" agencies where all residents have serious mental illnesses. This particular agency was moving from project-based to scattered-site housing. However, even as this agency moved away from project-based models, they found it difficult to provide their clients with housing that would truly integrate them into the larger community.

However, moving residents into buildings of their choice where they are the only supportive housing residents does not guarantee integration into the neighborhood. Many PSH providers worried that, rather than integrating into the larger community, residents would feel isolated in scattered-site housing in communities.

P: We would like to actually create more of a sense of community among the residents because it's a scattered site program. We don't own a building or anything like that. And so some of them are by themselves in a building. So one of the things that we've been really trying to figure out [are] ways to help each of those people feel engaged in ...community that they are living in...because at the end of the day, that makes a big difference in accessing health care and kind of feeling like you have kind of a place in the world....

In contrast, PSH providers reported that it was easier to create a sense of community in project-based apartments. Many project-based units have amenities that promote socialization such as outdoor areas with barbecue facilities, computer rooms and general meeting rooms. In addition, case managers can organize events that promote a sense of community such as exercise or cooking classes. Finally, some residents in project-based PSH programs organize themselves into tenant advocacy groups and have had some success in advocating for particular development projects in their neighborhoods.

P: We have a program called Tenant Leadership and it's just like working with the residents to kind of unify them around a goal. So one of the things that the residents here wanted was to have some say so of what happens to the empty lot across the street and so our Tenant Leadership worked with them to you know, set up meetings with the alderman and the city and just kind of had their voice heard and kind of empowered them definitely. So we are going to have a Whole Foods across the street in, like it's coming in 2016, so yes, they are super excited....

Having the support of peers helped some residents integrate more in their geographic communities.

Service Provision

Case management ratio—As seen in Table I, low-intensity supportive housing tends to use project-based housing configurations and, while less pronounced, intensive case management tends to use scattered-site housing. In part, this is due to the logistical difficulties in seeing a large caseload of residents who may be housed in different parts of the city.

P:Actually... the surprising thing for us is the sheer amount of time spent going to visit people. I mean like [staff name]...lives not so far from here, but a lot of her clients are on the south side and so she just, we lose time...and it's time spent sitting in traffic which of course is by itself a level of burnout, but then you know sometimes it means like there is a client waiting for you on one end of the city or another and so I think like there is some level of burnout of just you know anxiety about being able to kind of meet the needs of everybody.

In project-based housing, travel time is not an issue and case workers reported seeing residents more frequently. However, case managers also mentioned that because they are in such frequent contact with clients, they could fall into the trap of becoming too focused on immediate and daily crises rather than helping residents achieve longer term goals.

P: Challenges to being where people live is, again, we are where people live, so let's say some days are busy and you have a lot of things going on. So you are there for people as their life unfolds and some of the time it can break your heart to do some of the case management that you need, because the overall goal of case management is to assist people on their goals. So we are working with people around the goals they have created and let's say my goal is to find a job, maybe to keep up with my health, those types of things..., but that becomes difficult where you work where people live because... someone just got a phone call and a loved one may have passed away or a loved one is really ill. So now we can go into a point of a person having a crisis so you are working with them around that and you are doing those things with them. You may not get back to the service plan to a month down the road, two months down the road, three months down the road depending on what is going on.

With caseloads as large as 60 to 1, case managers reported that clients who were more visibly in crisis and demanded more services were the ones most often prioritized. This may leave some of the “quieter” residents without the same intensity of services as needed. Some case managers dealt with this problem by making sure that all clients were seen on a regular basis, whether they came seeking particular services or not.

Many providers espoused the benefits of intensive case management and argued that the needs of their supportive housing residents have increased over the years, perhaps in part due to the centralized referral that puts the most vulnerable at highest priority for being housed. Many executive directors and case managers of programs that offer low-intensity case management hoped to decrease their case manager to client ratio.

P: A policy that gets translated into action at our level, we're getting people who are quote unquote sicker as they come into housing which demands more resources

that we don't actually have and so we still have fairly large caseloads. We would love with the chronically homeless who are now being judged by some pretty strict placement standards so that you get people who are close to death as they come in.... They are very, very sick. We would like a caseload level of 1 to 15, 1 to 20 people, our caseloads are 1 to 40, 1 to 50 sometimes, you know, 1 to 60 in some buildings. It's crazy and maybe... you don't have the resources to hire more people or be competitive because we play in a smaller box, we are not like some of our colleague organizations like [agency name] which is primarily a mental health organizations that has got into housing. They have a whole different pool of money that they can play with and they can go and get health dollars, mental health money... where ours is a little more limited.

As mentioned in the quote above, behavioral health type supportive housing programs have other funding streams other than HUD, for example Substance Abuse and Mental Health Services Administration (SAMSHA) and Medicaid, from which to draw to provide additional case management and supportive services. ACT teams, for example, were only provided by behavioral health organizations. Because ACT uses a team approach, many individuals are involved in coordinating the care of residents, who are often seen once or more a week for various services. However, ACT and CST teams are personnel intensive and are only seen in larger agencies with hundreds of supportive housing residents.

Other services

PSH programs also differ in the extent to which they offer a variety of services within their agency in addition to case management. Most of the agencies that can offer more integrated services are larger agencies that either have a large number of PSH units, or whose PSH programs are just a part of a large array of social and medical services that they provide. Many of these agencies are eligible for Medicaid, SAMSHA or ACA funding. P: I think that we are unique. We're one of I would think maybe two or three programs in the city that have a full 360 wrap around service, so because we are a federally qualified health center, you know, we have behavioral health services, we have medical health services, we have mental health services, you know, that come available to our clients on day one...whereas another organization would have to connect them to service, you know, we've, that's an internal process for us....

Other agencies reported that they had tried to provide wraparound services but found that doing so was beyond their organization's capacities. Unlike the agency quoted above, many supportive housing agencies rely solely on HUD money. In recent years, HUD has reduced money for services preferring to spend money to provide more housing units to house the chronically homeless. The rationale behind this decision is that other agencies fund social and psychological services while HUD is the only federal agency that can provide money for housing (Burt et al., 2010). In practice, this means that supportive housing programs that were not part of larger organizations providing behavioral health or medical services are no longer able to receive money to provide wrap-around services.

P: Yeah, we see as being creative and really trying to diversify funding and, you know, making sure that you have good relationships with other organizations that

can do things that you can't do, trying not to do everything that there was a few years ago. There was a big push on locally to really have wrap-around services. So if they needed health services, you had mental health services available to them, you know, maybe that meant having a psychiatrist as part of your agency. If you need medical services having a nurse, you know, employment services, you got to have an employment person, right, and for us, we tried a little of that. ...So this push to have wrap around services, organizations really tried to develop more of those internal stuff within our own organizations and be able to do that and ultimately where we ended up and I think a lot of organizations is to say, okay, we are not going to do it all ourselves. Instead what we will do is that we will have strong partnerships with regional partners who can do it...

Illustrated by the quote above, many agencies that are not able to provide all of the services their clients need must rely on their partnerships with other organizations. Some service providers saw this as an advantage to residents who preferred to keep their medical and mental health services private. However, referrals to outside services, particularly to mental health providers, were often difficult due to long waiting times. As one case manager stated, "Everything in the city has a waiting list... For like a psychiatrist for one of our clients, it takes, she has an appointment in like four months."

PSH programs also differed according to whether case managers were available to residents after regular business hours. Some programs offered on-call case managers, while other project-based sites had staff on premises 24 hours a day. Providers at PSH programs that offered 24 hour access to case managers felt that this support was essential for residents, particularly those who were newly housed after long periods of homelessness, although they also recognized that residents also called after hours for non-emergency reasons. Other programs did not provide access to case managers after hours. Case managers felt that this helped residents mobilize their own support networks.

P 2: Community housing [i.e. scattered site]...we are not on call after hours. So we are supposed to speak from clients from our eight hour work day and not after. So, I still get calls on the work phone all of the time, on the weekend and I was always so tempted to answer and respond and so what I do, I no longer take my work phone home after hours, because clients do have a procedure to follow in case of emergency, where I found that they were not calling me for emergencies, they were calling me because I was available and they needed some support and they did not want to look for it elsewhere. So once I equipped them with what they need to look elsewhere for that immediate support as well as emergency numbers, I was comfortable in leaving the phone at work until work hours.

PSH programs that offer 24 hour on-call or on-site assistance may be perceived as allowing less independence to residents than is advocated in the Pathways Housing First model. Although not always the case, 24 hour supervision can become 24 hour surveillance or "monitoring" of residents' behaviors. When this surveillance is also coupled with punitive actions, PSH agencies are no longer following a harm reduction approach, as seen in the next section.

Harm Reduction Housing Approach

Most researchers measuring fidelity to Housing First models consider a harm reduction philosophy and practice to be an essential component of their programs. In this approach, substance use or psychiatric medication non-compliance is not prohibited. If substance use or medication non-adherence leads to behavioral problems that put the resident, his or her neighbors or housing at risk, case managers step in to reduce the harms associated with substance use as seen below.

I: Okay, is there a circumstance for somebody to be kicked out because of drug use?

P:.. It's not necessarily because of the drug use, it's because of the behavior that drug use caused. So some of our apartment owners have cameras and they have sent us tapes of people making drug buys in their building and I mean, they are very visible...and so what we do is called an eviction prevention intervention... We call the apartment manager while he [the resident] is sitting there and we try very much to advocate for the client. Can we have one more chance at this? We explain to the client, this will not happen again or you have nowhere...to be.... "Now, I'm not saying that ...you got to stop using drugs. That's not my job to tell you that...What I am telling you is that if this man catches you again, back on the street you go" and we even go beyond that. So let's say he gets tossed out of that particular building... We're all the while, once we find that out, we are still looking for him to have a place.... He might have to go back to a SRO for a month or two before we can find him another place, but we are not in the business of putting people back on the street.

Harm reduction is somewhat more difficult to maintain in fixed-site programs because residents' substance use affects other residents. However, many project-based programs also implemented a harm reduction approach by focusing on how the behaviors affected others in the building.

P: So here we have something called harm reduction and so we... we can't tell you how to live in your unit, as long as what you are doing in your unit doesn't impose on your neighbor or the larger community, then it's really none of our business what you do in your unit. That is the kind of approach that we take. It's when they are in the halls nodding or going on these drunken rampages yelling at people, then it becomes an issue that we have to address and at that time, we usually kind of bring in everyone, you know the case manager, the supervisor... and we kind of like say, what is the best way to address this resident's issues. Okay, in order for him to maintain his housing he needs to stop having these like drunken brawls... and so it's like bring the resident in and saying "Look, we are not saying don't drink. You have every right to drink or use or whatever is going on, but you can't do it in the halls or you know in front of the building or in the lobby, like that's not appropriate. So why can't we do it and make sure that it's contained to your unit, you know, maybe you won't drink after a certain time."

Scattered-site housing may be more conducive for implementing harm reduction because case managers intervene when landlords complain about the tenant's behavior. Housing

management and case management services are automatically separate in a scattered site model because the PSH agency does not own the property. In project-based supportive housing, some providers mentioned the difficulty in having property management and case management services within the same agency. Many responded to this challenge by separating property management and case management into separate departments within the agency.

P: What we have recently done, this year we restructured and we have teased out and separated our residential services and clinical services. So it used to be that it was all kind of mixed together. And it's actually been really great to separate those roles because they each have different goals. A lot of the residential services work is having to be sort of the bad guy sometimes and enforce rules and structure and when the case managers were doing that, that was really getting in the way of relationship building. And so by separating those we sort of were able to better align our staff with like their goals and provide a lot of supervision and support in those areas.

Some PSH programs have not embraced a harm reduction philosophy. For some agencies, this was because harm reduction conflicted with their religious principles. Others felt strongly that the homeless had serious problems, including mental illness and substance use, which would be irresponsible not to address through more traditional interventions.

P: The whole push on the Housing First at the federal level is being a dragging force for housing nationally.... And so, that Housing First model is something I can't really relate to just because it doesn't really address whatever the issue is the person is bringing you as to what led to their chronic homelessness.... And in those places we're seeing them try it, it hasn't worked.... I just think from what I know and from what tenants tell me here, to give a person who's using a house that's furnished, they will sell every piece of furniture in that house to get the drugs that they're addicted to.... It ranges from mental health to people who are still active drug users.... People do not choose when they have an episode, which is why you have to be staffed 24 hours. So, for people to put people like that...in a house, and then just go away and think they can just manage. It's like I don't even understand that concept because I think as supportive housing providers you almost have to be like a doctor. You cannot do harm to people who are not the position to help themselves. You can't do that. Something about that seems very unethical and it's being driven by money.

As can be seen in this quote, some agencies that reject harm reduction feel that subpopulations of homeless are not ready to be independently housed and need constant supervision. Some PSH providers who provide housing that requires abstinence from drugs and alcohol mention having case managers and 24-hour staff on site as an advantage in that it allows them to monitor residents' drug and alcohol use. This was seen as an advantage since the mission of these organizations was to promote recovery from drugs and alcohol.

Proponents of harm reduction in PSH argue that the formerly homeless may not be ready for complete abstinence and that requiring it will cause residents either to voluntarily leave their housing or to hide substance use when it becomes problematic. This can lead to a growing

severity of the problem as residents will not be offered tools to reduce the harms associated with substance use, and may eventually lose their housing. Some PSH agencies provided both abstinence-based and harm reduction housing. The abstinence-based housing often predated harm reduction housing. These housing models were maintained because agency staff believed that sober living facilities were necessary for and wanted by some formerly homeless residents in recovery from drug and alcohol abuse. However, as seen in the quote below, some residents in these housing programs did not truly choose the programs because they were abstinence-based but because they were the first PSH units available to them.

P: Our program is completely different than a scattered site, it's abstinence-based and once someone applies to our program, we make that well known. People in our program are in recovery and are trying very hard to maintain their sobriety. Therefore, part of sobriety, whether true or not, is the element of relapsing. So we, what we try and do is with their permission, get them into a treatment program. If someone say, "Hey, I don't want to go into treatment program." This is like the 8th time, then we just say, do you really want to live here and they say no, you know, we really can't force.

Thus, housing stability may be more of a problem for residents of abstinence-based programs. As seen above, in harm reduction programs, a number of different options are available in eviction prevention such as asking residents to use drugs only in their unit, or reduce their drug use. In addition, residents in scattered-site harm reduction programs have the option of moving into another unit if eviction prevention fails.

DISCUSSION

Results from our study show that supportive housing programs in the Chicago metropolitan area vary along a number of important components including housing configuration, how supportive services are delivered, whether mental and physical health care and other services are provided within the agency, and the extent to which the agency follows a harm reduction approach. While supportive housing programs varied along these components, certain components were more likely to be offered together. For example, while low-intensity case-management was found in both project-based and scattered-site units, it was more often found in project-based housing (800 project-based units followed a low-intensity case-management model compared to project-based units that had intensive case management). Similarly, intensive case-management was most often found in scattered-site housing with 1500 of the scattered site units following an intensive case management approach versus 100 using low-intensity case management. Behavioral health models housed residents in both project-based and scattered site units. Some of these patterns were due to logistics, for example the difficulty in having large case-loads of clients who may live all over the city.

This diversity in supportive housing models is not surprising as it has been noted extensively in the literature (Kresky-Wolff et al., 2010). This diversity may be due in part to the relatively broad definition of supportive housing provided by HUD, the major funder of supportive housing for the chronically homeless. In this article, we follow HUD's definitions of "supportive housing" and "housing first" as providing immediate and direct housing to the homeless from the street. In the last decade, HUD has increasingly focused on providing

housing to the chronically homeless, and among them, to those most vulnerable. The Central Referral System (CRS) is Chicago's first attempt to meet HUD recommendations to house the most vulnerable from the streets and shelters. To the extent that Chicago supportive housing programs use the CRS to identify and then immediately house homeless people, all programs that participated in this study considered themselves to be practicing the "Housing First" approach to serving the homeless

Other researchers have argued that HUD's definition of Housing First was too vague and both HUD and the original Housing First program, Pathways to Housing, failed to specify the essential components of the program for faithful replication (Tabol et al., 2010). Research has been conducted to develop and validate at least a couple of Housing First fidelity scales and to use these to determine the degree to which programs are following a Housing First model or not (Gilmer et al., 2014; Gilmer et al., 2013; Watson, Orwat, et al., 2013; Watson, Wagner, et al., 2013). However, the Housing First fidelity measures include a number of different components and it is not yet clear from the literature which components are essential for residents' success. For example, according to the Pathways Housing First fidelity scale, programs following a Housing First model must use scattered-site units. Proponents of this model argue that scattered-site housing offers clients more choice in their housing and better integration with the larger community. However, our results showed significant pros and cons of both project-based and scattered-site housing which are largely dependent on clients' needs. While greater than in project-based housing, the amount of choice that consumers have in scattered-site housing is in practice limited by housing affordability and landlord willingness to rent to supportive housing recipients. In addition, some case managers felt that some residents were isolated in their new communities and took additional measures to try to get residents to know their neighborhoods. A sense of community was easier to create in project-based supportive housing, as residents and staff organized many building activities. However, project-based housing could also create a sense of re-institutionalization, particularly in the few programs that reported heavy "monitoring" of residents' behaviors. Case managers reported that harm reduction can be difficult for some residents in project-based housing as they may find that others' drug use triggers their own relapses. Finally, while project-based housing facilitated easier access to case managers, this could breed over-dependence among residents. Scattered-site housing required considerable travel time for many case managers which limited their access.

Similarly, adherence to the Pathways Housing First model requires supportive housing to use ACT teams. Our results showed three basic styles of service delivery: low-intensity case management, intensive case management and behavioral health team approaches. Again, few clear advantages to any one model over the others were identified. In our study, very few agencies had programs that used ACT or CST teams. Those that used ACT or CST were large organizations that had historically provided community mental health treatment and could bill Medicaid for reimbursement. For smaller organizations with few residents, ACT or CST teams were impractical due to cost and staffing and not being able to bill Medicaid for services. Many service providers in low-intensity case management programs wished to decrease their case manager to client ratios, citing the increasing needs of the homeless population they were serving. However, higher client to case manager ratios are possible in project-based housing where travel time is not an issue. In addition, some case managers in

intensive case management programs reported that residents' needs decrease considerably over time, particularly if they have resided in the program for several years. A more flexible approach to determining the level of case management needed based on client need may be more cost-effective in the long run. The extent to which programs were able to provide additional "wraparound" services also varied by agencies' size and mission. While most agencies partnered with other agencies to get needed services for their clients, access was a problem for mental health treatment with long wait times.

Most supportive housing programs in Chicago used a harm reduction approach to their clients' drug and alcohol use and psychiatric symptoms, only intervening when behaviors were disturbing neighbors or when they were in danger of being evicted. In these cases, case managers would work with housing management and the client to modify the behavior so that residents could keep their housing. In scattered-site housing, residents were often able to stay in the program even if eviction prevention failed as they were moved into new units. A few agencies rejected a harm reduction approach and took steps to monitor residents' drug use and punished residents who were caught using by restricting visitors or eviction. Some agencies had both harm reduction and abstinence-based programs. Case managers of abstinence-based programs argued that there was a need for such programs for those who were trying to achieve sobriety. Indeed, some case managers of project-based harm reduction programs acknowledged that residents' drug use could trigger relapses in those who were trying to remain sober. For homeless waiting for housing, it may be difficult to reject any housing opportunity, even if they are not ready to be abstinent. Thus, as one case manager reported, many will agree to abstinence based housing just to get off the street and ultimately end up leaving the program.

There are several limitations to the study that must be noted. First, all supportive housing agencies were located in a single metropolitan area where a great deal of collaboration, cross-training, and other resource sharing was common. Thus, supportive housing programs in other cities may differ significantly from the programs described here. However, results from this project do show considerable variation in supportive housing program components even within a limited geographic area. In addition, we interviewed only two to three staff members in each supportive housing agency and their descriptions of the programs offered in their agencies may have been limited by their own experiences and perceptions, potentially biasing results. Further, the service providers interviewed were not selected at random. Rather, we asked project directors to identify members of their organization who would be able to answer questions about the characteristics of various programs. The service providers selected by directors may have had experiences and perspectives that differed markedly from other employees at the organization and future research should aim for a more representative sample. Finally, we did not interview residents of supportive housing for this phase of the research. However, in a previous project we interviewed residents' of supportive housing programs about their perceptions of program components. For residents in this study, having a stable, safe place to live in terms of their apartment building and neighborhood were considered to be the most salient features determining their satisfaction with their housing (Authors pub.). Residents reported fewer needs for services than reported by supportive housing providers and received services from a number of agencies outside

their supportive housing provider (Authors pub). Longitudinal surveys with supportive housing residents are planned for the next phase of this study.

CONCLUSIONS

The components identified in these qualitative interviews may be a more fruitful way to compare the effectiveness of different PSH models on the outcomes of housing stability, mental and physical health as opposed to a one-size fits all Housing First fidelity scale. Indeed, different programs and their components may be more or less effective depending on resident characteristics. The results presented here are part of a larger study in which residents (n=1000) from the different PSH programs identified in the qualitative phase will be surveyed longitudinally to determine the effects of different PSH program components (e.g. case worker ratio; scattered-site versus project-based; harm reduction) and identify the PSH model types that are most effective for different supportive housing residents (e.g. those with serious mental illness, living with HIV, dual substance use/mental illness diagnosis). This comparative effectiveness approach may help us identify the essential components or best PSH model for particular residents. Similarly, we will conduct a cost-effectiveness analysis of different PSH program components and model types to determine which models are most cost-effective for which residents. For example, residents with serious mental illness may have better housing stability and fewer mental health symptoms in the Behavioral Health type model. The larger expenditure on ACT teams might therefore be offset by decreases in hospitalizations. On the other hand, the Behavioral Health model may not be necessary for all homeless individuals. Thus, results from our study may help optimize placement of homeless individuals into programs that best meet their needs.

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Table 1

Social Services Model

	Low-intensity Case- management	Intensive Case- management	Behavioral Health Model
Project-based Housing Units	#Agencies=3 #Programs=14 #Units=800+	#Agencies=9 #Programs=16 #Units=350+	#Agencies=4 #Programs=10 #Units=368
Scattered Site Housing Units	#Agencies=2 #Programs=2 #Units=100+	#Agencies=17 #Programs=46 #Units=1500+	#Agencies=3 #Programs=11 #Units=577+