Substance Use Outcomes Among Homeless Clients with Serious Mental Illness: Comparing Housing First with Treatment First Programs

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Abstract

The Housing First (HF) approach for homeless adults with serious mental illness has gained support as an alternative to the mainstream "Treatment First" (TF) approach. In this study, group differences were assessed using qualitative data from 27 HF and 48 TF clients. Dichotomous variables for substance use and substance abuse treatment utilization were created and examined using bivariate and logistic regression analyses. The HF group had significantly lower rates of substance use and substance abuse treatment utilization; they were also significantly less likely to leave their program. Housing First's positive impact is contrasted with the difficulties Treatment First programs have in retaining clients and helping them avoid substance use and possible relapse.

Keywords

Serious mental illness; Dual diagnosis; Homelessness; Housing First

Introduction

Homeless persons with co-occurring serious mental illness and substance abuse are among the most vulnerable and hardest-to-reach populations (Shinn et al. 2001). Among the programs designed to serve this population, two contrasting philosophies operate. One is the default approach (known as Treatment First) which has characterized the vast landscape of service delivery in the United States over the past three decades (Locke et al. 2007). The other approach, referred to as Housing First, originated with the establishment of Pathways to Housing, Inc. in New York City in 1992 (Tsemberis et al. 2003).

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Treatment First programs follow a continuum approach that offers temporary congregate housing along with a requirement of detoxification and sobriety as well as 'housing readiness' before giving access to independent housing. Housing readiness in this context refers to subjective evaluations by case managers that their clients are mentally stable, not using substances and have sufficient life skills to live without on-site supervision (Dordick 2002). Pathways to Housing ('Pathways') reverses this sequence by offering stable Housing First without requiring treatment adherence or sobriety, thus practicing harm reduction policies regarding substance use and consumer choice as a key operating principle (Tsemberis et al. 2004).

Housing First has gained momentum in recent years as cities and states search for new solutions to long-term homelessness (Burt et al. 2005). Its dissemination has been facilitated by a small but growing evidence base comparing Housing First and Treatment First across several parameters. Among the experimental outcomes are greater residential stability, greater perceived choice and lower residential costs associated with Housing First (Greenwood et al. 2005; Gulcur et al. 2003; Tsemberis et al. 2004). Perhaps not surprisingly, Treatment First clients were more likely to use substance abuse treatment since this was a non-negotiable part of their program's requirements (in contrast to the Housing First program where treatment was not a requirement of its clients and harm reduction policies were directed to substance use). Despite distinctly different program requirements, Treatment First clients did not differ from Housing First clients in their substance use (Padgett et al. 2006).

Substance abuse is a key obstacle to mental health recovery, putting consumers at greater risk of health problems, homelessness, victimization and incarceration (Drake et al. 2006). Approximately 50–70% of persons who are homeless and have a severe mental illness also abuse substances and these estimates are widely considered underreports (Drake et al. 1997). Indeed, difficulties in accurately assessing substance use undermine research efforts to understand the problems of homeless persons with dual diagnoses (Drake et al. 2006; McHugo et al. 2006).

National estimates of substance use in the general population point to gender differences, with women less likely to abuse substances than men (Office of Applied Studies 2004). With respect to race/ethnic differences in rates of substance abuse, African-Americans are more likely to abuse crack cocaine and heroin than non-African-Americans. However, Whites have higher overall lifetime rates and are more likely to abuse drugs such as powder cocaine, alcohol, hallucinogens and inhalants (Ma and Shive 2000).

Little is known about intra-group differences in substance use among homeless adults with mental illness even though such differences have clear implications for addressing substance abuse as a major problem in this population (Drake et al. 2006). In particular, we know little about those enrolled in the markedly different approaches of Housing First and Treatment First. This study was designed to address such gaps in knowledge by ascertaining rates of substance use and use of substance abuse treatment services among homeless mentally ill adults enrolled in Housing First and Treatment First programs in New York City.

This report drew upon longitudinal qualitative data from which dichotomous variables for substance abuse and substance abuse treatment utilization were derived for 27 Housing First (Pathways) clients and 48 Treatment First clients. We address the following questions: (1) Do new enrollees in Housing First differ from their Treatment First counterparts in substance use? (2) Do these groups differ in use of substance abuse treatment services?

Methods

Sampling and Recruitment

The sample consisted of serial admissions of new enrollees at four New York City programs (Pathways plus three Treatment First programs). Staff at the programs invited every eligible client to participate in the study (individuals had to have DSM Axis-I diagnoses and a history of substance abuse). DSM Axis-I diagnoses included schizophrenia, bipolar disorder, major depression and schizo-affective disorder. All but one gave informed consent and all participants were paid an incentive of $30 per interview and $10 each month for tracking and retention check-in calls. With participants' consent, their program case managers were interviewed to elicit their perspectives on their clients' behaviors and experiences within the program. Also with the client's consent, psychosocial intake documents were obtained from the program.

All of the programs in the study served homeless adults with serious mental illness and all shared the same low-threshold process of intakes, the latter consisting of self-referrals as well as referrals from street outreach workers, shelters, jails or hospitals. Residences associated with the programs—whether congregate or scatter-site—were located in working class or poor neighborhoods in New York City.

Data Collection Procedures

Three in-depth qualitative interviews were conducted with client enrollees at 0-, 6-, and 12-months starting approximately 1 month after program entry; monthly check-in calls were also made to update their status in the program. The first case manager interview took place a few weeks after the baseline client interview; a second case manager interview was conducted 6 months later (or earlier if the client left the program). Case managers were asked about their knowledge of the client's problems (mental and substance use predominantly) and their prognosis for his/her future in the program. Data collection took place from 2005 to 2007.

Interviews were conducted at the study offices or the participant's residence by four graduate student interviewers who had previous research and clinical experience with dual diagnosed populations. All interviews began with a conversational update and then inquired about current needs, service experiences, social relationships, substance use and mental health status. Maintaining a holistic viewpoint, interviewers were trained to ask about circumstances and contexts surrounding their experiences, including mental status, social relationships, and help-seeking behaviors. Interviewers filled out a form afterward reporting their observations of the interviewee's non-verbal behavior and any indications of substance use.

Data Analysis

Case summaries were composed for each participant documenting substance use, service utilization and other important events (e.g., leaving the program) during the year. These summaries drew upon individual interviews, interviewer observations, case manager interviews, agency intake records, and interviewers' observations. As recommended by Stake (1995), such triangulation by data source (clients, case managers, agency records, observation) enhanced the accuracy and validity of our case-specific analyses.

The two outcomes of interest in this study—substance use and treatment for substance abuse—were transformed into dichotomous (yes/no) variables (Stake 1995). This option to "quantitize" qualitative data can be advantageous since "reducing qualitative data to numbers can sharpen the focus on a key finding" (Sandelowski 2001, p. 233). Based upon

prolonged engagement and rapport with study participants in real-life circumstances, we optimized the likelihood of having an 'ecologically valid' appraisal (Shadish et al. 2002) of substance use and treatment utilization.

Team discussions of each study participant were led by that person's primary interviewer and drew upon the case summaries using all available data (shared by members of the study team). Participants categorized as *low/no substance use* had no illicit drug use and no or only occasional alcohol use ("occasional" referring to "a few beers over the weekend" or "a drink or two over the holidays"). *Substance use* involved any illicit drug use and/or frequent and heavy alcohol use. This definition meant that substance use ranged from a single episode of crack cocaine smoking to sporadic use of drugs and/or alcohol to complete relapse into addiction and heavy use. *Substance abuse treatment* was defined as admission to detoxification and rehab facilities. Baseline substance use (at the time of program admission) was determined by the psychosocial intake assessment forms with corroboration when available from the case manager. Substance use after baseline was ascertained by consensus discussions based upon convergence among the combined sources of information contained in the case summaries. Chi square (Fisher's exact) tests were conducted for bivariate analyses and multivariate logistic regression analysis was conducted using the SAS statistical program to predict the dichotomous outcome of substance use. All study protocols were approved by the authors' university human subjects committee.

Results

Of 83 persons enrolled in the study, 75 (90%) completed data collection for this report (the remaining were lost to follow-up due to leaving the state, disconnected telephones, and/or prolonged institutionalization). Table 1 displays the characteristics of the two groups showing that they are predominantly male and non-white. Of group comparisons shown in Table 1, only race/ethnicity was statistically significant ($P < .05$). We also classified each participant according to the referral source for entering the program and found that 38 (51%) were referred by homeless outreach workers, 14 (19%) were referred by peers or friends, 12 (16%) by jails or courts, 7 (9%) by a psychiatric hospital, and 2 (5%) were unknown. There was no significant difference in referral source between the two groups ($\chi^2 = 2.058$, $df = 4$, $P = 0.725$).

Three group characteristics—baseline substance use, gender and race—were significantly related to substance use in bivariate tests ($P < .05$) and were consequently entered as covariates (along with age) in the logistic regression analysis. While baseline substance use has obvious relevance to the outcomes in question, we included gender and race/ethnicity as covariates due to their relationship to substance use (Office of Applied Studies 2004). Finally, an interaction term was added to the model to test for an interaction between program assignment and race/ethnicity, thereby taking into account the disproportionate number of African-Americans in the Treatment First group. Because no significant interaction was found, the term was removed from the final model.

Table 2 reveals that Treatment First participants were somewhat more likely to have a previous history of detox and rehab treatment for substance abuse although this was not a statistically significant difference. Such high rates of previous treatment in both groups attest to their shared histories of substance abuse (the latter a prerequisite for study entry).

As shown in Table 2, Housing First participants were significantly more likely to have low/no substance use during the study year than the Treatment First participants. They were also significantly less likely to use services for substance abuse and less likely to prematurely leave their program, or 'go AWOL'. Of the 31 (out of 48) in the Treatment First group who

reported using drugs and/or abusing alcohol during the study, 26 went AWOL from their program (the remaining 5 were discharged) and 14 experienced a full relapse into addiction. Of the 8 (out of 27) Housing First participants who reported using substances, all stayed enrolled in the program including the two who relapsed into addiction. The three Housing First participants who went AWOL from the Pathways program (Table 2) left to join family outside of the city or state (none relapsed).

Results of the logistic regression analyses (Tables 3, 4) reveal that group differences remained significant after controlling for gender, race, age, and baseline substance use. Thus, Treatment First participants were 3.4 times more likely to use drugs and/or abuse alcohol than Housing First (Pathways) participants during the year after entering their program. The other significant predictor was race, with African-Americans being 3.2 times more likely to use drugs and/or abuse alcohol than other race/ethnic groups (Table 3). With regard to use of substance abuse services (Table 4), Treatment First participants were ten times more likely to use these services than Housing First participants during the year after entering the program. Use of substance abuse services was not significantly associated with gender, race, age or use of substances at baseline.

Discussion

This report provides strong evidence that Housing First clients are significantly less likely to use or abuse substances when compared to Treatment First clients. They are also far less likely to use substance abuse treatment services and to drop out of services. Such a finding lends further credence to research showing that individuals who are seriously mentally ill can lead stable lives in the community after periods of homelessness (Gladwell 2006; Nelson et al. 2007; Padgett 2007; Padgett et al. 2006). It is also noteworthy because Housing First clients, unlike their Treatment First counterparts, are not prohibited from using substances in order to retain their housing and access to program-related services. In contrast, Treatment First participants had to comply with abstinence-only living arrangements that presented them with an either/or proposition and the risk of losing their transitional housing.

We note the salience of two demographic characteristics in the study's findings—gender and race. With respect to gender, national survey findings regarding lower rates of substance use by women were not evident in this study. This potential 'leveling' effect of homelessness has been noted elsewhere (Padgett et al. 1990) as the likely result of extreme stress and high exposure to drugs and alcohol on the streets affecting women and men alike. Yet there was not a leveling effect for race in this study since African-Americans were significantly more likely to abuse substances and to use substance abuse treatment when compared to their non-African-American counterparts. Epidemiological studies of the homeless mentally ill do not report race/ethnic breakdowns in substance use to permit comparisons with this finding. However, as mentioned earlier, national survey data show a disproportion in terms of higher rates of crack cocaine and heroin use among African-Americans (Ma and Shive 2000).

Much lower rates in use of substance abuse treatment services by Housing First participants can be viewed both as a reflection of lower need and of Pathways' harm reduction approach that tolerates low- to moderate use without mandating detox and rehab treatment. These programmatic contrasts have significant implications for treatment costs. They also underscore the importance of engaging vulnerable clients for periods of sufficient duration to enable them to benefit from the services available to them.

This study has both strengths and limitations. Among the former, the quantitized data and variables were ecologically valid representations grounded in prolonged engagement and

rapport-driven relationships taking place in real-life circumstances. Following recommendations by Stake (1995), we carried out triangulation by data source to enhance the validity of our judgments about substance use. At the same time, these data (as with any self-report data) could potentially be biased by social desirability and selection bias.

The absence of random assignment meant that real-world circumstances shaped the in-flow of new enrollees into these programs. The greater proportion of African-Americans in the Treatment First group, for example, is a group composition difference for which we have no ready explanation since the ways that individuals entered the program did not differ when categorized and compared. Future research will be needed to ascertain if this racial imbalance is repeated or a one-time event. Nevertheless, we note that known group differences, when controlled for statistically, had little effect on the key outcomes of substance use and service use. We also note that study participants resided in similarly low income communities and did not differ in their geographic exposure to illicit drug or alcohol sales.

Nevertheless, we acknowledge that some unknown or unmeasured differences between the two groups may underlie the findings and that Housing First participants were in some way less prone to substance use/abuse (or Treatment First participants more prone). Social support, for example, was not as amenable to categorical measurement using qualitative data as were other variables (such as substance use); it was consequently not included as a predictor.

Participants may have under-reported substance use, although this likelihood was lessened by concerted efforts to maintain trust and candor across the study's multiple encounters with them. In addition, substance use (or non-use) was validated by triangulating self-reports with interviewer observations and case manager interview data when available. To the extent that under-reporting occurred, the findings are likely more robust since Treatment First clients had a greater incentive to under-report (given the potential consequences including loss of housing and/or services).

This report affirms previous evidence that Housing First clients are more likely to stay engaged in a program and be residentially stable. Most importantly, it contributes new evidence that these benefits extend to greater control over drug and alcohol use. Higher rates of substance use and substance abuse treatment utilization among Treatment First study participants—in connection with higher rates of program dropout–raise questions about the ability of such programs to engage clients and the high costs incurred by relapse-related services.

The Housing First model aligns closely with the recovery movement that is currently driving mental health reform in the United States (Anthony 1993; Deegan 1996; SAMHSA 2005). It also provides a valuable example of how structuring services in innovative ways enables recovery-oriented practices that include harm reduction tolerance rather than abstinence enforcement. Without the rules and restrictions of mainstream programs, providers can genuinely engage with consumers and respond to them individually instead of having to offer a "take it or leave it" proposition bundling temporary housing with services. Working with consumers collaboratively, providers can also embrace the non-linear nature of recovery and offer services that are genuinely self-directed.

In conclusion, having the security of a place to live appears to afford greater opportunities and motivation to control substance use when compared to the available alternatives of congregate residential treatment or a return to the streets. In addition to empirical evidence showing greater housing stability and choice (Greenwood et al. 2005), Housing First can

assist in recovery from substance abuse. This, in turn, can lay the groundwork for achieving the full promise of mental health recovery.

Acknowledgments

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Table 1

Characteristics of Housing First and Treatment First participants

	Housing First ($n = 27$) % (N)	Treatment First ($n = 48$) % (N)
Gender		
Male	63 (17)	72 (34)
Female	37 (10)	28 (14)
Race[*]		
African-American	33 (9)	62 (30)
Latino/a	30 (8)	19 (9)
White	22 (6)	13 (6)
Asian/P.I.	8 (2)	2 (1)
Other	8 (2)	4 (2)
Primary diagnosis		
Schizophrenia	25 (7)	30 (14)
Bipolar disorder	29 (8)	30 (14)
Major depression	11 (3)	30 (14)
Schizoaffective disorder	25 (7)	7 (4)
Other/unknown	10 (2)	4 (2)
Average age (years)	44 (SD = 10.42)	40 (SD = 9.81)

[*]
$P < .05$

Table 2

Group differences in rates of substance use, substance abuse treatment and prematurely leaving the program

	Housing First (*n* = 27) % (*N*)	Treatment First (*n* = 48) % (*N*)
History of detox/rehab before study entry	70 (19)	81 (39)
Using substances at study baseline	7 (2)	17 (8)
Substance use during study[*]	30 (8)	65 (31)
Used detox/rehab during study[**]	7 (2)	46 (22)
AWOL from program during study[***]	11 (3)	54 (26)

[*] $\chi^2 = 8.458$, $df = 1$, $P = .004$;

[**] $\chi^2 = 11.726$, $df = 1$, $P = .001$;

[***] $\chi^2 = 13.507$, $df = 1$, $P = .000$

Table 3

Logistic regression of program effects on substance use controlling for gender, age, race and baseline substance use

Independent variable	OR[a]	95% CI[b]	P
Female	0.56	0.18–1.77	0.324
African-American	3.19	1.10–9.28	0.033
Age	1.00	0.95–1.06	0.965
Not using substance at baseline	0.96	0.32–2.91	0.955
Treatment First	3.41	1.12–10.35	0.030

[a]Odds ratio

[b]95% Confidence interval

Table 4

Logistic regression of program effects on use of substance abuse treatment controlling for gender, age, race and baseline substance use

Independent variable	OR[a]	95% CI[b]	P
Female	0.37	0.09–1.50	0.165
African-American	3.18	0.89–11.39	0.076
Age	1.03	0.97–1.10	0.304
Not using substance at baseline	1.14	0.37–3.55	0.823
Treatment First	10.01	1.91–52.4	0.009

[a]Odds ratio

[b]95% Confidence interval