

WRAPAROUND SERVICES IN SUBSTANCE ABUSE TREATMENT:
COMPARING THE PUBLIC AND PRIVATE SECTORS

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Substance abuse treatment programs are increasingly challenged to meet the physical, psychological, legal, and other service needs of clients whose addiction impacts and is impacted by problems in multiple life domains. The perceived need to focus on these broader contextual issues is notably greater than in other areas of specialty medical care. In response, treatment providers offer a variety of assessment and “wraparound” services in addition to substance abuse counseling. Provision of such services can enhance the recovery process, improve clients’ overall health and social well-being, and facilitate treatment access and utilization. The comprehensiveness of these services is highly variable, however, and thus, attention to the adoption of wraparound services in the treatment system is warranted. This paper provides an overview of the availability of several assessment and supportive services in nationally-representative samples of treatment programs in the public and private sectors.

Research has established that linking substance abuse treatment clients to wraparound services improves both their retention in treatment as well as their treatment outcomes (McLellan et al. 1993a,b; McLellan et al. 1998; Mojtabai 2003). In particular, the provision of transportation assistance (Friedmann, D’Aunno, Jin & Alexander 2000; Friedmann, Lemon & Stein 2001) and child care (Marsh, D’Aunno & Smith 2000; Smith & Marsh 2002) have been found to enhance treatment retention, while the provision of mental health, employment, and medical services has been associated with improved treatment outcomes (McLellan et al. 1994; Joe, Simpson & Hubbard 1991). While the associations between service provision and client

outcomes have been well-studied, less attention has been paid to the availability of such services in substance abuse treatment programs.

Etheridge and Hubbard (2000) provide a useful taxonomy differentiating “core” treatment services from supportive services. They define wraparound services as “psychosocial services that treatment programs may provide to facilitate access, improve retention, and address clients’ co-occurring problems” (2000:1762). Their definition includes both direct provision of services (i.e., on-site at the treatment facility) and referral linkages to other providers to address clients’ needs for medical, mental health, financial, educational, vocational, legal, HIV/AIDS, housing, transportation, childcare, and family services. Contrasting with this rather broad definition, most published studies have focused on a relatively limited number of medically-oriented services, or are limited to a small or specialized segment of the treatment system. Tempering optimism about how effective these arrangements may be, studies collecting client-level data have found significant levels of reported unmet needs (Etheridge et al. 1995).

Variations in the availability of wraparound services provided by substance abuse treatment programs have been documented in numerous studies (Durkin 2002; Friedmann et al. 1999, 2003; Lee et al. 2001). While some variation is explained by differences in client needs, a more common finding is that services vary by treatment modality and an organization’s structural characteristics, even with caseload demographics and service needs held constant (D’Aunno, Sutton & Price 1991; D’Aunno & Vaughn 1992, 1995; Etheridge et al. 1995; Freidmann, Alexander & D’Aunno 1999).

Early studies focusing on public-sector programs, such as DATOS (Fletcher et al. 1997), examined differences in treatment retention and outcomes across several modalities, namely long-term residential, methadone, and outpatient “drug free” programs. These analyses found

that the overall number of supportive services delivered was low, and was predicted not only by clients' problem severity, but also by treatment modality, with clients in long-term residential settings receiving more services, and those in methadone maintenance receiving fewer supportive services overall (Fletcher et al. 2003). More recent research has shown that methadone maintenance programs offer more medical services than other modalities (e.g., Freidmann, Alexander & D'Aunno 1999) but that the provision of other wraparound services in these settings is lower than in non-methadone modalities (Ducharme, Knudsen & Roman, in press; Freidmann et al. 2003).

Organizational characteristics other than treatment modality have also been associated with the availability of wraparound services, but different organizational characteristics seem to predict the availability of different services (Durkin 2002; Freidmann et al. 2003). This is likely due in part to the unique organizational features required to support a given service. For example, in a study of methadone programs, Ball et al. (1986) found that the delivery of medical services was related to the number of medical personnel on staff, but unrelated to client characteristics or service needs. Other services (for example, social/family services) may be more widely available in the community, increasing the likelihood that treatment providers can establish solid referral linkages for their clients (Etheridge et al. 1995). When services are not readily available in the community, treatment facilities may be less likely to offer them unless specific funding or other incentives are available.

Indeed, notable for their consistency in predicting the adoption and availability of these services are the funding sources and profit orientations of programs under study. In the National Survey of Substance Abuse Treatment Services (N-SSATS, formerly UFDS), SAMHSA reports that, in the aggregate, private for-profit facilities offer the fewest number of supportive services,

while government-owned facilities offer the greatest number of services. In particular, for-profits are significantly less likely to offer medical testing and transitional services (i.e., employment, housing, and social services assistance) than non-profit and government-operated organizations (SAMHSA 2003). Such findings have been replicated in other samples that contained both public and private-sector treatment services (Freidmann et al. 2003; Wheeler, Fadel & D'Aunno 1992). Indeed, these differences may be exacerbated by greater availability of funding and other incentives in the public sector that are earmarked for the provision of wraparound and transitional services.

To summarize, the provision of wraparound services has a demonstrated association with improved client retention and outcomes in substance abuse treatment settings. Thus, the availability of such services in the treatment system merits attention. Organizational characteristics, particularly funding and profit orientation, are consistently predictive of service availability. However, most studies have focused on only a limited number of medical services, and do not simultaneously take funding and profit status into account. The following analyses examine the adoption and availability of a wide variety of assessment and wraparound services in nationally-representative samples of publicly- and privately-funded substance abuse treatment programs in 2003-2004.

DATA AND METHODS

Sample

Data are drawn from the 2003-2004 wave of the University of Georgia's National Treatment Center Study (NTCS). The NTCS is a family of research projects designed to describe and monitor longitudinal changes in the structure and services of drug treatment organizations

throughout the U.S. The analyses described in this paper are based on two components of the NTCS, which are nationally representative samples of specialty addiction treatment programs in the public and private sectors.

The NTCS uses a two-stage random sample of treatment programs, stratifying first on geographic location (county) and then sampling treatment facilities within strata. Eligible facilities were enumerated within each sampled county by using current directories obtained from Single State Agencies, and supplemented with information obtained from yellow pages listings, EAP referral directories, and survey sampling lists. Separate samples were drawn for the public and private treatment center components. In both samples, eligible facilities are organizations offering treatment for alcohol and drug problems, providing a level of care at least equivalent to structured outpatient programming as defined by ASAM patient placement criteria (Mee-Lee et al., 2001). Excluded from the study are counselors in private practice, halfway houses and transitional living facilities, DUI or driver education programs, and facilities offering exclusively methadone maintenance services.¹ Because the NTCS focuses on treatment programs that are available to the general public, facilities operated by the Veteran's Administration and those based in correctional facilities were also excluded from the sampling frame.

The sample of private sector treatment programs for this study was originally drawn in 1994. Unique to this study, "private sector" programs are defined as those receiving less than 50% of their annual operating revenues from government block grants and contracts; in practice, these centers receive less than 9% of their revenues from such sources on average. They include both for-profit and non-profit programs. To compensate for sample attrition due to program closure over time, replacement centers have been randomly selected within the appropriate

¹ Programs offering methadone maintenance along with other non-maintenance modalities are eligible for sampling in the NTCS. Such facilities represent about 9% of the public sector sample and 15% of the private sector sample.

geographic strata to maintain a target sample size of about 400 eligible units. This paper reports data from 395 private programs that were interviewed in 2003-2004. The response rate for this wave of interviews was 87% of those centers that were sampled and eligible.

Using similar stratification and identification procedures, a separate sample of public-sector treatment programs was drawn in early 2002. Eligibility rules were the same as for the private sample, except that public sector programs were defined as receiving at least 51% of their annual operating revenues from Federal, state or local grant sources (including criminal justice funds). In practice, sampled programs received an average of just under 80% of their annual operating revenues from government grants. The response rate for the 354 public-sector facilities included in these analyses was 80%.

An Analytic Typology of Treatment Centers

In order to explore the variation in service availability across funding sectors, the samples of treatment facilities are further segmented for these analyses. Many organizational studies (including Federal datasets such as the N-SSATS) utilize a three-part typology that integrates ownership and profit status, consisting of government-owned, private non-profit, and private for-profit organizations. Such a typology is problematic, however, because it assumes a degree of homogeneity within the non-profit sector that may not accurately reflect the variety of constraints and opportunities that result from the types of financial relationships in which non-profit organizations are enmeshed. Some non-profit organizations may primarily depend on *private* sources of funding. A nonprofit hospital that is largely dependent on revenues generated from private insurance is an example. This type of non-profit interacts with market forces and, therefore, must still engage in competitive strategies in order to insure its long-term survival

(Scott et al. 2000). In contrast, other non-profit organizations interact less with the market, instead focusing on their relationships with governmental entities at the local, state, and federal levels (Perry & Rainey 1988). These organizations may be privately owned, but they are heavily dependent on public funds (Scott 1998). There has been a recent trend in increasing ties between government and non-profit organizations in terms of contracts and grants to provide needed public services (Clark, Dorwart, & Epstein 1994).

With these market factors in mind, we propose the integration of the domains of ownership, profit status, and funding by segmenting our samples into four mutually-exclusive categories: government-owned, publicly funded non-profit, privately funded non-profit, and for-profit organizations. This segmentation reflects the empirical reality of the US system of substance abuse treatment, and will provide a more meaningful understanding of the impact of funding on service delivery, particularly within the nonprofit sector.

Subsequent manuscripts in this series will utilize a similar organizational classification scheme. Therefore, prior to examining the provision of wraparound services in these facilities, we will briefly examine the distribution of the NTCS sample and key organizational characteristics across the four categories just described. Table 1 presents a summary of revenue sources by program classification. It should be emphasized that the measure being used is the program's *revenue* sources, not its clients' payment sources. As shown, the vast majority of annual operating revenues in government-owned and publicly-funded nonprofit organizations comes from government grant funds, including Block Grants, other funds from Federal, state, or local (usually county) grant sources, and criminal justice contracts.² By contrast, the privately-funded non-profits as well as for-profit programs derive a notably larger portion of their revenues

² Although not shown in the table, criminal justice contracts make up less than 10% of the average annual revenues in any of the four groups.

from insurance reimbursements, including both commercial insurance as well as entitlement coverage. More than one-third of the operating revenues in for-profit facilities are from client payments, including both self-paid services and insurance co-payments.

[Table 1 about here]

Particularly notable in Table 1 is the clear distinction between the two groups of non-profit treatment facilities in terms of their operating revenues. In the analyses described below, as well as in subsequent papers being developed in this series, we will examine bivariate and multivariate relationships between funding and other organizational characteristics in order to better understand the role of funding in the adoption of evidence-based treatment practices.

Table 2 further describes the sample in terms of key organizational and client characteristics across each of these four analytic categories. Inpatient, residential, and outpatient modalities are represented in the sample, with largely similar distributions across the four groups. Reflecting well-documented trends, both groups of privately-funded centers are somewhat less likely to offer exclusively inpatient/residential modalities, and more likely than publicly-funded centers to offer both inpatient and outpatient services. The groups are also similar in size as measured by FTEs, although government-owned centers tend to be the largest of the types, while for-profits are more often classified as “small” centers. The groups vary noticeably in their likelihood of holding a JCAHO or CARF accreditation, with nearly three-quarters of privately-funded non-profits, and more than half of for-profits, holding one or both accreditations. This is likely due to a relatively large number of hospital-based treatment

programs in the private non-profit category. In terms of geography, the groups are nearly identically distributed across rural and metropolitan areas.

[Table 2 about here]

The groups are also similar in the distribution of several client characteristics. There was no significant difference across groups on the percentage of female or adolescent clients in treatment. The public sector, particularly the publicly-funded nonprofits, treated a higher percentage of clients with primary cocaine problems, but were not significantly different in terms of primary opiate-dependent clients. Programs in the public sector also tended to receive more referrals from social services agencies, which may indicate better linkages for some of the wraparound services described below. Finally, there are a few between-group differences in the credentials of counseling staff. Private sector programs, particularly the privately-funded nonprofits, were more likely to employ counselors with Master's degrees compared to public sector programs. Across the board, an average of about 60% of counselors in these centers hold addiction certifications. Between 40%-50% of counselors, on average, are in recovery, with this percentage being greatest in the for-profit programs.

On balance, when considering these organizational, staff, and client characteristics, the four groups of treatment centers appear to share more commonalities than differences. Thus, to the extent that between-group differences are identified in the bivariate analyses described below, there is reason to hypothesize that the varying funding streams account for some nontrivial proportion of the variance in these differences. With this in mind, we now turn to the

measurement and analysis of assessment and wraparound services made available to clients in these settings.

Measures of Assessment and Wraparound Services

Organizational-level data were collected using structured face-to-face interviews with treatment center administrators and with clinical directors whenever available. These interviews covered a variety of topics about program management and operations, staffing, clinical services, and innovation adoption. Relevant to the following discussion, respondents were asked about the provision of assessment services as well as wraparound services for the program's clients. In terms of assessment services, respondents indicated (1) whether the treatment program utilized any standardized addiction dependence measures in the client assessment process; (2) whether the Addiction Severity Index specifically was used; (3) the proportion of clients receiving medical examinations by a physician or nurse during the assessment process; and (4) the proportion of clients receiving psychiatric assessments by a psychiatrist or psychiatric nurse at entry into the program. Use of standardized measures and the ASI was coded as a yes/no variable. A dichotomous variable was constructed for the remaining assessments, and programs indicating that any patients received physical exams or psychiatric evaluations were coded as offering these services.

In terms of wraparound services, two different types of measures were used to measure the provision of services related to eight different life domains. Respondents provided yes/no responses regarding the availability of three services: on-site childcare for clients with children; transportation services; and a specialized treatment track for clients with HIV/AIDS.

Respondents also provided information about the availability of five additional services: medical care, employment/vocational services, legal services, financial services, and social services. For each of these services, respondents were asked to rate on a 0-to-5 scale the extent to which the program ensures that clients in need of the service receive it. The scale was used to obtain a general measure of the extent to which efforts are made in each domain. Dichotomous measures were then constructed for each variable, whereby centers reporting a score of 5 were contrasted against all others. In this scheme, service delivery included both direct service provision (i.e., on-site by the center's staff) as well as linkages to outside services by referral. Although such a coding scheme does not differentiate between on-site and referral-based services, it ensures that programs with well-established referral networks are not penalized for a lack of in-house services. It should also be noted that, while these are not direct measures of the number of clients receiving services, they serve as a useful proxy to indicate relative efforts expended in addressing clients' needs.

RESULTS

Table 3 shows the availability of assessment services by each of the four center types. As shown, the majority of centers in the NTCS reported using standardized addiction dependence measures. Government-operated centers were significantly more likely than privately-funded non-profits to use standardized measures (93% vs 78.3%, $p < .001$), but other group differences were not statistically significant. When asked about a specific addiction dependence measure – the Addiction Severity Index – publicly-funded centers were significantly more likely than the privately-funded centers to report use of this assessment instrument.

[Table 3 about here]

In terms of physical examinations and psychiatric assessments, these were commonly available across the four categories of centers. Significant between-group differences were found within the nonprofit sector for both services. Clients treated in privately-funded nonprofit centers were significantly more likely than those in publicly-funded nonprofits to have received physical exams (71.3% vs. 52.4%, $p < .01$) and psychiatric assessments (70.1% vs. 49.3%, $p < .01$) upon entry into the program. Notably, government-operated programs and private for-profit programs were very similar in their rates of offering these services.

Table 4 presents the distribution of various wraparound and supportive services across the typology of treatment centers in the NTCS. To begin, childcare services were offered by just over one-quarter of the publicly-funded centers, and in fewer than 10% of the privately-funded centers; the between-group differences for each of the public versus private funding groups were statistically significant. Likewise, transportation assistance was significantly more likely to be available in public than in private-sector treatment centers. Roughly one-half of the privately-funded programs offered some form of transportation assistance, while nearly three-quarters of government-owned programs, and 70% of publicly-funded nonprofits offered this service. Offering a dedicated treatment track for clients with HIV/AIDS was uncommon compared to other services, but it was significantly more often available among publicly-funded facilities, which were about twice as likely as privately-funded facilities to offer such programming.

Roughly half of all centers in the NTCS reported making extensive efforts to link clients with needed medical services. Although the bivariate associations indicate higher propensity scores among government-operated programs, and lower scores among for-profits, these

differences were not statistically significant. Differences were more notable when examining the availability of employment or vocational services. About 40% of publicly-funded non-profits reported extensive efforts to engage clients in such services, which was nearly double the reported rate in both of the private-sector groups. Both of the public-sector groups reported more efforts to link clients with needed legal services than their private-sector counterparts, and the differences within the nonprofit sector were statistically significant, with publicly-funded nonprofits reporting greater efforts in this domain. Similarly, publicly-funded nonprofits were more likely than their privately-funded counterparts to link clients with needed financial counseling services. Finally, centers' reported propensity to link clients with needed social/family services was relatively high across the board, with no statistically-significant differences between groups.

DISCUSSION

These data provide an overview of the availability of a number of assessment and supportive or “wraparound” services among community-based treatment centers operating in the US. They also provide evidence of variation in service delivery among sectors defined by ownership, funding, and profit status. Reported use of standardized addiction dependence measures was uniformly high, and both psychiatric assessments and medical examinations were provided in a substantial proportion of treatment centers. In general terms, most treatment centers are assessed to determine their needs, but it appears that needs beyond substance abuse counseling are not uniformly being addressed.

The availability of wraparound services was highly variable. Most common across all sectors was the provision of transportation assistance, medical services, and family or social

services; these were available either directly or by referral linkages in more than half of all treatment programs. Other supportive services were less commonly available, and in some cases there were marked differences in service provision between the public and private sectors. These findings highlight the importance of attending to the impact of funding on organizational adoption of evidence-based practices, and in particular the importance of differentiating among non-profit units on the basis of principal funding source.

Significant differences between publicly-funded nonprofits and privately-funded nonprofits were seen in a number of the services measured: use of the ASI, provision of psychiatric assessments and medical examinations, and efforts to link clients with transportation, childcare, HIV/AIDS services, and services to address challenges in clients' employment, legal, and financial domains. With the exception of medical exams and psychiatric assessments – which were more common in privately-funded nonprofits – the use of the ASI and the provision of wraparound services were uniformly more common in the public sector.

The higher rate of adoption of certain practices in the public sector is consistent with mandates from Federal funding agencies that are largely absent in centers relying on private and commercial revenue streams. For example, use of the Addiction Severity Index is notably more common in publicly-funded facilities; components of the ASI are incorporated into performance measures that are frequently collected at the state level, as well as in grant or demonstration projects conducted with publicly-funded programs. As a result, the ASI is either mandated for use or has become the *de facto* standard for clinical intake protocols in much of the public sector. Likewise, Federal initiatives in the 1990s to address the needs of pregnant substance abusing women (e.g., childcare) as well as the growing HIV epidemic, made available demonstration grants and other public funds which bolstered the provision of these services in the public sector.

The lingering effects of these policies can be seen in nonprofit treatment settings that continue to rely on public revenues today.

Several areas remain for future research. The purpose of this paper was to provide a general overview of the availability of assessment and wraparound services in substance abuse treatment programs throughout the US. Particular attention has been paid to identifying differences in service provision across funding, ownership, and profit categories. These bivariate analyses set the stage for more detailed statistical modeling that can examine whether the apparent funding differences hold once other organizational and caseload characteristics are controlled. In addition, this paper focused on the availability of each of a number of specific services that are often generically referred to as “comprehensive services.” However, few studies to date have truly measured the “comprehensiveness” of services within the typical treatment program. Future analyses will examine service comprehensiveness in these settings by creating an aggregate measure of the total number of core and wraparound services available, and modeling these as a function of organizational, client, and staff characteristics.

Table 1. Distribution of Revenue Sources by Center Type

	Government Operated (N=100)	Publicly Funded Non- Profits (N=254)	Privately Funded Non- Profits (N=277)	Private For- Profits (N=118)
Government grant funds*	81.0%	76.2%	10.1%	5.6%
Medicaid/Medicare payments	6.2%	4.8%	27.4%	16.1%
Commercial insurance payments	4.0%	2.8%	35.2%	34.8%
Client fees and co-pays	4.2%	6.6%	16.6%	36.0%
All other sources	4.6%	9.6%	10.7%	7.5%

*Government grant funds include Block Grant funds, and other grants from Federal, State, and Local sources. Grants and contracts from criminal justice agencies are also included.

Table 2. Organizational and Client Characteristics by Center Type

	Government Operated (N=100)	Publicly Funded Non- Profits (N=254)	Privately Funded Non- Profits (N=277)	Private For- Profits (N=118)
<i>Organizational Characteristics</i>				
Inpatient/Residential only	24.0%	20.9%	11.0%	10.3%
IP/Residential and Outpatient	24.0%	31.0%	46.3%	44.4%
Outpatient only	52.0%	48.1%	42.6%	45.3%
Size: <10 FTEs	27.0%	31.7%	36.1%	42.4%
Size: 10-30 FTEs	37.0%	41.7%	35.0%	27.1%
Size: >30 FTEs	36.0%	26.6%	31.4%	30.5%
Accredited (JCAHO or CARF)	30.0%	27.8%	73.6%	53.4%
Inside metropolitan area	91.0%	90.0%	85.5%	91.5%
Outside metropolitan area	9.0%	10.0%	14.5%	8.5%
<i>Client Characteristics</i>				
Percent female	37.5%	40.4%	39.2%	35.7%
Percent adolescent	12.4%	13.7%	11.6%	10.9%
Primary cocaine problem (%)	22.0%	30.4%	18.8%	17.5%
Primary opiate problem (%)	14.8%	14.3%	18.5%	16.6%
Social service agency referred (%)	20.9%	23.1%	16.7%	13.5%
<i>Counselor Characteristics</i>				
Master's level or higher (%)	40.0%	35.5%	53.8%	48.3%
Certified in addictions (%)	58.7%	56.1%	59.4%	58.2%
Recovering (%)	44.6%	47.7%	41.2%	51.7%

Table 3. Availability of Assessment Services by Center Type

	Government Operated (N=100)	Publicly Funded Non- Profits (N=254)	Privately Funded Non- Profits (N=277)	Private For- Profits (N=118)
Use of standardized addiction dependence measures	93.0% ^a	83.0%	78.3% ^a	83.9%
Use of Addiction Severity Index	65.0% ^{a,b}	56.5% ^{c,d}	36.0% ^{b,c}	37.3% ^{a,d}
Provide psychiatric assessments	58.0%	49.3% ^a	70.1% ^a	61.5%
Provide medical examinations	62.6%	52.4% ^a	71.3% ^a	62.4%

Superscripts indicate that there are significant between-group differences ($p < .05$) on the availability of the service.

Table 4. Availability of Wraparound Services by Center Type

	Government Operated (N=100)	Publicly Funded Non- Profits (N=254)	Privately Funded Non- Profits (N=277)	Private For- Profits (N=118)
Childcare services	27.0% ^{a,b}	27.0% ^{c,d}	9.4% ^{b,c}	3.4% ^{a,d}
Transportation assistance	74.0% ^{a,b}	70.6% ^{c,d}	53.8% ^{b,c}	49.6% ^{a,d}
HIV/AIDS treatment track	21.0% ^{a,b}	20.7% ^{c,d}	9.8% ^{b,c}	7.6% ^{a,d}
Medical services or linkages	56.6%	52.0%	52.7%	47.9%
Employment services or linkages	27.3%	40.1% ^{a,b}	22.9% ^b	22.2% ^a
Legal services or linkages	34.3%	36.7% ^a	22.3% ^a	28.2%
Financial services or linkages	22.2%	30.2% ^a	17.6% ^a	23.1%
Social/Family services or linkages	48.5%	57.0%	56.7%	51.3%

Superscripts indicate that there are significant between-group differences ($p < .05$) on the availability of the service.

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