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## Substance Abuse Treatment for Older Adults in Private Centers<sup>1</sup>

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### Abstract

By 2020, an estimated 4.4 million older adults will require substance abuse treatment compared to 1.7 million in 2000/01. This study examined the availability of special services for older adults, adoption of recommended treatment approaches, and organizational characteristics of centers that offer special services. Data were collected via face-to-face interviews with administrators and/or clinical directors from a nationally representative sample of 346 private treatment centers participating in the 2006/07 National Treatment Center Study. Results indicated that only 18% provided special services for older adults; age-specific recommendations were generally adopted; more older adult-specialty centers offered prescription drug addiction treatment, primary medical care, and housing assistance. The proportion of patients with Medicare payment predicted availability of special services. As more older adults will seek help with a myriad of SUDs over the next decade, treatment centers need to get ready for a plethora of challenges as well as unique opportunities for growth.

### Keywords

older adults; subgroups; special services; treatment adoption; organizations

### Introduction

The changing demography of the U.S. population will provide the substance abuse treatment specialty with new challenges as well as with opportunities for growth over the next decade. The number of older adults, defined here as individuals 65 years of age and older, and hence the number of older adults with substance use disorders (SUDs), will greatly increase (1). The number of older adults is estimated to grow from 40 million in 2010 to 55 million in 2020 (2). In 2000/2001, an estimated 1.7 million older adults were in need of substance abuse treatment. Projections suggest that this number will triple to 4.4 million by 2020 (3). Unfortunately, opportunities are rare for older adults to get specialized help recommended

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for their age group, because few substance abuse treatment centers provide special services for older adults (4). Perhaps for this reason, the sheer numbers of SUD admissions for older adults is small. In 2005, of the 1.8 million total treatment admissions, only 11,300 (0.6%) older adults were admitted to treatment (5,6).

As with all SUD populations, older adults' treatment admission rates are underestimates of prevalence and pose treatment obstacles. First, as with all age groups, primary care and specialist physicians do not routinely address and/or screen older adults for SUDs. Second, because of confounding symptoms, it is more difficult to detect and diagnose SUD in older adults compared to younger adults. For instance, addictions in older adults can mimic age-related issues such as confusion and cognitive declines (7,8). Sociological factors also come into play as barriers to treatment. As an indicator that significant others might not bring suspected problems to the attention of physicians, loneliness and isolation from others are often associated with undetected SUDs in older adults (9). As a specific example of this dynamic, increased use of alcohol, late-onset of SUDs, and inappropriate use of prescription medication are more likely to go unnoticed in later life and after retirement, which commonly eliminates observational relationships with supervisors, co-workers, and work-based social networks (10). Finally, older adults, like other age groups, are often reluctant to seek help with addictions due to the perception of stigma and shame, and generational effects may render these perceptions more potent than among younger groups (11).

### **Suggested Treatment Approaches and Expert Panel Recommendations for Older Adults**

There are no published studies, to our knowledge, on the adoption of suggested treatment practices and other expert recommendations for SUD treatment techniques useful for older adults. An expert panel commissioned by SAMHSA offers specific SUD treatment approaches with older adults (see Table 2) (8,12). There is evidence that age-specific programs are linked to better treatment outcomes and adherence in older adults (13–16). This finding may be linked to the nature of social roles among older adults. For example, older adults rarely have the primary concerns of younger adults (e.g., family formation, employment, obtaining child care). Conversely, older adults have unique challenges that are rare among the young: Widowhood, shrinkage of friendship networks, lack of means for increasing income, cognitive and physical decline leading to loss of functions such as sexuality. Thus, older adults may gain greater benefits in age-specific settings and feel more comfortable disclosing and discussing problems with same-age peers than participating in mixed-age groups in either outpatient or inpatient care.

### **Organizational Characteristics of Centers Offering Special Services for Older Adults**

Most research on SUDs and older adults has focused on patient characteristics (e.g., clinical trials). Organizational characteristics of treatment centers offering special services for older adults have been studied minimally (4). Thus, SUD treatment practices investigated in this study were guided by expert panel recommendations and suggested practices (8,12). For instance, some medications that aid in the treatment of addictions, such as disulfiram, are not recommended for older adults due to adverse effects (17,18). Thus, we may see a difference in the use of medications between centers that do and those that do not offer special programs for older adults. It is also recommended that treatment for older adults integrate cognitive-behavioral therapy as well as smoking cessation techniques and prescription drug addiction treatment. In addition, suggested practices include wrap-around services that specifically address older adults' special needs, such as inadequate availability of primary care, housing assistance, and transportation to and from treatment.

The purpose of the current study is to identify the availability of special services for older adults and then compare the availability relative to the percentage of older adults by region

(19). We also consider the extent to which centers adopt recommended practices and treatment suggestions for older adults made by expert panels. Finally, we contrast the organizational features of private SUD treatment centers that offer special services and assess predictors of the availability of special programs for older adults.

## Methods

### Sample and Study Design

The nationally representative cross-sectional data from private substance abuse treatment centers for this study were derived from the 2006/07 National Treatment Center Study (NTCS), which was conducted by the University of Georgia's Institute for Behavioral Research. The NTCS is a family of longitudinal projects that is designed to assess changes in service delivery within privately funded substance abuse treatment centers across the United States. The quantitative data for the current analyses were collected via face-to-face interviews with administrators and/or clinical directors between 2006 and 2007 from 346 substance abuse treatment centers.

The NTCS used a 2-stage stratified study design. First, all U.S. counties were assigned to 1 of 10 strata based on population and then randomly sampled within strata to ensure the inclusion of urban, suburban, and rural areas. Second, using national and state directories, all substance abuse treatment facilities in the sampled counties were enumerated. Treatment programs were then proportionately sampled across strata. In order to be eligible a center had to obtain less than 50% of its revenue from government block grants and government contracts, offer treatment for alcoholism, be accessible to members of the community (prison-based programs were excluded), and provide a standard of care that was at least equivalent to structured outpatient services as outlined by the American Society of Addiction Medicine. Ineligible centers were replaced by random selection of alternative treatment programs from the same geographic stratum. The 346 centers that provided data represent a 67% response rate.

### Measures

The dependent variable—availability of special programs for older adults in private substance abuse treatment centers—was determined with the question, “Does your center offer (1) entirely separate tracks, (2) specialized groups, (3) lectures as needed, or (4) no specific services for elderly/geriatric/older patients?” Response options were no (coded 0) and yes (coded 1). The former three options constitute availability of special services for older adults in private centers ( $N = 63$ ); the latter option comprises the “no special services” group ( $N = 283$ ). Comparisons between the percentage of private centers offering special programs for older adults and the percentage of older adults by region were made using 2007 U.S. Census Bureau (2008) data.

We also assessed the adoption of suggested treatment approaches and expert panel recommendations (8,12). A single question (0 = *not at all* to 5 = *almost always*) regarding the extent of the utilization of a particular treatment approach was posed for each of the following topics: Engaging in non-confrontational treatment; focusing on (re)building self-esteem; teaching older adults how to cope with depression, loneliness, and loss; focusing on (re)building social networks; tailoring the content and pace toward older adults; hiring staff that are interested and/or experienced in working with older adults; providing linkages with medical and community-based services appropriate for older adults; offering cognitive-behavioral treatment; group-based treatment; individual counseling sessions; medical/psychiatric treatment; marital and family involvement/therapy; and integrative case management/community-linked services.

Differences in organizational characteristics between private centers offering and not offering special services for older adults were evaluated based on the use of (0 = *No*, 1 = *Yes*) five medications (SSRIs, other-anti depressants, disulfiram, naltrexone, and acamprosate), cognitive-behavioral therapy (CBT), smoking cessation techniques taught, prescription drug addiction treatment, and three wrap-around services (primary medical care, housing assistance, and transportation). Dichotomous variables were created for primary medical care and housing assistance where 1 = *Yes* (on-site) and 0 = *No* (not provided, provided at another location within the organization, provided via formal contract/agreement with another organization). The use of medication pertained only to centers that had physicians—48 of the 63 centers that provided special services and 157 of the 283 centers that did not provide special services to older adults.

Finally, we examined eight factors that might predict the availability of special programs for older adults in private substance abuse treatment centers—(1) center size (larger centers may have more resources to provide specialized services); proportion of the average caseload that has (2) Medicaid and (3) Medicare (older adults tend to have more financial needs than younger adults) as their primary expected source of payment; proportion of the total caseload that is (4) abusing or dependent on alcohol (main addiction reported for older adults) and (5) abusing or dependent on prescription opiates (second highest addiction reported for older adults); (6) referrals received from other health care providers (0 = *No*, 1 = *Yes*; given social constrictions, health care providers may be the first to notice symptoms of addiction); (7) hospital-based status (0 = *No*, 1 = *Yes*; older adults have a greater need for primary and specialty medical services), and (8) the percentage of older adults per county. Center size was assessed based on the number of full time equivalents (FTE's) employed by the center. The percentage of older adults per county is based on U.S. Census Bureau (2009) estimates and coincides with the county where each center is located (20).

## Analyses

Using SAS 9.2, where appropriate, descriptive statistics, 2-proportion z-tests (2-tailed), chi-square tests, and logistic regression were conducted to assess the availability of special programs for older adults, contrast the availability with the percentage of older adults per region (Table 1), examine the adoption of treatment approaches (Table 2), identify differences in organizational characteristics based on the provision of special services (Table 3), and examine organizational predictors of the availability of special programs for older adults (Table 4). In order to achieve normal distributions, center size was log transformed and the proportion of the average caseload that has Medicare as their expected payment was square root transformed. Statistical tests did not indicate multicollinearity issues.

## Results

### Availability of Special Programs for Older Adults in Private Treatment Centers

Special services (i.e., separate tracks, special groups, or lectures/services) for older adults were provided in 63 (18%) of the 346 private treatment centers (see Table 1). Separate analysis of the three domains that made up the special services dependent variable showed that of those 63 centers providing special services, 30% had entirely separate tracks available for older adults, 29% offered special groups, and 41% presented age-appropriate lectures and other services as needed.

### Availability of Special Programs Relative to the Percentage of Older Adults by Region

The 63 private centers that provided special services to older adults were located in 26 of the 45 states that were included in the NTCS. We used 2007 U.S. Census Bureau (2008) data to compare the percentage of older adults by region to the percentage of private centers

included in our study that offered special services to older adults (see Table 1). There were significantly more private centers offering special services in the West compared to the percentage of older adult residents; no statistically significant differences were found in the Northeast, Midwest, and South.

### **Extent of Adoption of Treatment Approaches Recommended for Older Adults**

Data in Table 2 indicate that private centers generally provided recommended special services for older adults (8,12). Specifically, centers widely reported (mean responses ranged from 4.02 to 4.41 on a 6-point scale) that they focused on engaging in non-confrontational treatment, rebuilding self-esteem, coping with depression, loneliness, and loss, rebuilding social networks, providing age-appropriate content and pace, hiring staff interested in and/or experienced working with older adults, and providing linkages with medical and community-based services. In addition, although to a lesser extent (mean responses ranged from 3.52 to 4.05 on a 6-point scale), private centers used cognitive-behavioral treatment, group-based treatment, individual counseling, medical/psychiatric treatment, marital/family therapy, and case management/community linked services. Additional analyses (not shown) indicated no statistically significant differences in utilization of treatments between centers having separate tracks for older adults, offering special groups, and presenting lectures as needed.

### **Differences in Organizational Characteristics based on Special Services Offered for Older Adults**

As indicated in Table 3, comparisons in organizational characteristics between those centers offering and not offering specialty services for older adults were made for medication use (SSRIs, other anti-depressants, disulfiram, naltrexone, and acamprosate), cognitive-behavioral therapy, smoking cessation techniques taught, prescription drug addiction, and three wrap-around services (availability of primary medical care, housing assistance, and transportation assistance). There were three statistically significant differences in outcomes—more centers offering specialty services also offered treatment for prescription drug addiction, primary medical care, and housing assistance than did non-specialty centers.

### **Organizational Predictors of the Availability of Special Programs for Older Adults**

Logistic regression results, as shown in Table 4, indicated that of the eight predictors investigated, only the proportion of patients with Medicare as their expected primary source of payment was statistically significant; center size approached significance ( $p = .059$ ). Specifically, the odds of availability of special services for older adults increased 1.22 times with each unit increase in the percentage of patients with Medicare payment. Similarly, with each unit increase in the size of the center, the odds of availability of special older adult services increased 1.27 times.

## **Discussion**

As the number of older adults with substance use disorders (SUDs) is expected to increase over the next decade (1), it will become increasingly more important for treatment centers to make available age-specific services. Particular treatment approaches are recommended for use with this population (12). We assessed and compared the availability of special programs for older adults in private substance abuse treatment centers, examined the adoption of treatment approaches that are recommended for older adults, evaluated differences in organizational characteristics between private centers offering special services for older adults, and identified organizational predictors of the availability of special programs for older adults.

Results indicated that the availability of special services for older adults in substance abuse treatment centers is limited overall but varies by region. In addition, age-specific recommendations are generally adopted. Compared to non-specialty centers, more specialty centers offer prescription drug addiction treatment, primary medical care, and housing assistance. Finally, the proportion of patients with Medicare payment predict the availability of special services.

### **Availability of Special Services for Older Adults in Private Treatment Centers**

Similar to previous findings, using data from both public and private substance abuse treatment centers (4), few (18%) private centers in our study offered special programs for older adults. A comparison between the percentage of centers offering special programs and the percentage of older residents by region, however, showed few statistical differences. The only exception was that centers in the West actually offered more services for older adults compared to the percentage of older adults residing in that region. With the estimated tripling in the older population that will require substance abuse treatment over the next decade (3), it will be interesting to follow trends and changes in the availability of specialized treatment for older adults and treatment practices that address the needs of this age group.

### **Adoption of Treatment Approaches for Older Adults**

We found that many private centers that offer special services for older adults adopted the recommended treatment approaches (8,12). Recommended practices that were frequently used included a non-confrontational approach, focus on rebuilding self-esteem and social networks, coping with depression, loneliness, and loss, providing age appropriate content and pace, staff that is interested in and experienced working with older adults, and linkages with medical and community-based services. Approaches recommended by experts that had most room for improvement included group-based treatment, medical/psychiatric treatment, marital/family therapy, and case management/community linked services.

### **Organizational Characteristics of Private Centers Offering Special Services for Older Adults**

We compared the use of medications, cognitive-behavioral therapy, smoking cessation techniques taught, prescription drug treatment, and wrap-around services between private centers based on the availability of special services. Results showed few differences between the centers, with the exception of prescription drug treatment and availability of both primary medical care and housing assistance. The greater use of prescription drug addiction treatment in centers with special programs for older adults may be linked to the fact that addiction to opiates in addition to alcohol is the most prevalent substance use disorder among older adults (5,6). Although 41% of specialty centers offered prescription drug addiction treatment compared to only 25% non-specialty treatment, more can be done to address the growing need for prescription drug addiction treatment among older adults. Similarly, although more specialty centers provided primary medical care and housing assistance, which is one step in meeting the needs of older adults with SUDs, much remains to be accomplished.

Interestingly, we did not find differences in the use of pharmacotherapy between specialty and non-specialty centers, even though older adults are more likely to experience adverse pharmacotherapy effects compared to younger adults. For instance, disulfiram is not recommended for older adults but can be safely administered to most younger adults (17,18). Yet we did not find significant differences in the use of disulfiram between private centers that did and those that did not offer specialty services for older adults. Our data did not allow us to determine the percentages of older adults that receive disulfiram. However,



the importance of educating professionals about the differences in the effects of medications on older compared to younger adults cannot be overstated.

### Organizational Predictors of Availability of Special Programs for Older Adults

Of the eight predictors investigated, only the proportion of patients with Medicare payment was significantly related to the availability of special services in private centers. The proportion of patients expected to use Medicare as their primary payment as a predictor is not surprising insofar that older adults are eligible for Medicare regardless of their financial situation. What is, however, somewhat surprising is the lack of relationship between the percentage of patients expected to use Medicaid, because many older adults have financial needs and Medicaid may pay for items that are not covered by Medicare.

### Limitations

One limitation of our study was the cross-sectional design. Although the NTCS is a longitudinal study, the current wave is the first to include in-depth questions about the adoption of recommended practices and recommendations for older adults. Thus, we cannot determine if the recommendations that were made a decade earlier (8,12) caused changes in the adoption of treatment approaches for older adults. Furthermore, we only examined private centers in this study and our results may not generalize to public centers. For instance, private centers have more flexibility in resource use as well as more “organizational agility” in seeking new resources, suggesting that they are more likely to offer special services for older adults. However, Schultz and colleagues using data from both public and private centers found that less than 20% had special services for older adults (4), which is similar to our findings with private centers only.

Another limitation is associated with our reliance on self-reported data by administrators and/or clinical directors. It is possible that centers over-reported the adoption of recommended practices. Replications of our study would provide greater insights into the level of adoption of age-specific programs. In addition, replications using both private and public centers will provide greater support for the generalizability of our findings. Finally, our use of organizational-level data is an additional limitation. Future research in this area will benefit from multi-level data including data from older adults. This will also provide the field with a better understanding of the match between recommended treatment approaches and older adults’ needs.

With the aging of the population, it would seem prudent for centers to more widely adopt age-specific practices to meet the needs of older adults and draw them into treatment. As more adults in mid- and later-life will seek help with a myriad of SUDs over the next decade, substance abuse treatment centers need to get ready to face a plethora of challenges as well as unique opportunities for growth.

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**Table 1**  
 Comparison between the Percentage of Private Centers Offering Special Programs for Older Adults and Percentage of Older Adults by Region<sup>a</sup>

Region	Centers Sampled N	Special Services Provided		Older Adults by Region <sup>a</sup>		z-test <sup>b</sup>
		n	%	n	%	
Northeast	74	10	13.5	13.7	13.7	-.12
Midwest	103	20	19.4	12.9	12.9	1.83
South	87	16	18.4	12.6	12.6	1.48
West	82	17	20.7	11.3	11.3	2.52*
Total	346	63	18.3			

Note.

<sup>a</sup>2007 U.S. Census Bureau (2008) estimates (Northeast = CT, ME, MA, NH, NJ, NY, PA, RI, VT; Midwest = IL, IN, IA, KS, MI, MN, MO, NE, OH, SD, WI; South = AL, AR, DE, DC, FL, GA, KY, LA, MD, NC, OK, SC, TN, TX, VA, WV; West = AZ, CA, CO, ID, MT, NM, OR, UT, WA);

<sup>b</sup>2-tailed 2-proportions test.

\*  $p < .05$ ;

**Table 2**

Extent of Adoption of Suggested Treatment Approaches and Expert-Panel Recommendations in Private Centers Offering Special Services for Older Adults (N = 63)

	M <sup>a</sup>	SD
Suggested Treatment Approaches <sup>b</sup>		
Engaging in non-confrontational treatment	4.37	.92
Focusing on (re)building self-esteem	4.25	.98
Teaching skills to cope with depression, loneliness, loss	4.32	.95
Focusing on (re)building social networks	4.27	1.02
Tailoring content & pace toward older adults	4.41	.78
Hiring staff interested/experienced working with older adults	4.02	1.28
Providing linkages with		
medical services	4.40	.98
community-based services	4.21	1.15
Expert Panel Recommendations <sup>c</sup> : Offering		
Cognitive-behavioral treatment	4.05	.94
Group-based treatment	3.68	1.48
Individual counseling	4.19	1.05
Medical/psychiatric treatment	3.52	1.55
Marital/family involvement/therapy	3.83	1.30
Case management/community linked services	3.73	1.53

Note.

<sup>a</sup> 0 = not at all to 5 = almost always;

<sup>b</sup> Schonfeld & Dupree (1995);

<sup>c</sup> SAMHSA/CSAT (1998).

**Table 3**  
Differences in Organizational Characteristics between Private Centers Offering Special Services for Older Adults<sup>a</sup>

	Offered <sup>b</sup>		Not Offered <sup>c</sup>		$\chi^2$
	f	(%)	f	(%)	
Use Medications <sup>d</sup>					
SSRIs	45	(94)	144	(92)	.21
Other anti-depressants	39	(81)	140	(90)	2.46
Disulfiram	20	(42)	62	(39)	.07
Naltrexone	29	(60)	86	(55)	.47
Acamprosate	28	(58)	85	(54)	.26
Use Cognitive-Behavioral Therapy	55	(89)	251	(90)	.09
Teach Smoking Cessation Techniques	38	(60)	136	(48)	2.84
Offer Prescription Drug Addiction Treatment	26	(41)	70	(25)	6.75 <sup>***</sup>
Provide Wrap-Around Services					
Primary Medical Care	21	(33)	45	(16)	10.14 <sup>***</sup>
Housing/Shelter Assistance	16	(26)	41	(15)	4.55 <sup>*</sup>
Transportation Assistance	38	(60)	151	(54)	.85

Note.

<sup>a</sup> Only "yes" responses are shown;

<sup>b</sup> N=63;

<sup>c</sup> N=283;

<sup>d</sup> Represents only centers with prescription writing staff (48 special services centers and 157 non-specialty centers)

\*  $p < .05$ ;

\*\*\*  $p < .01$ .

**Table 4**

Logistic Regression: Organizational Predictors of the Availability of Special Programs for Older Adults

	<b>B</b>	<b>SE</b>	<b>OR</b>
Center size (log)	.24	.13	1.27
% caseload with Medicaid payment	-.01	.01	.99
% caseload with Medicare payment (square root)	.20	.07	1.22**
% caseload abusing/dependent on alcohol	-.01	.01	.99
% caseload abusing/dependent on prescription opiates	.00	.01	1.01
% older adults per county <sup>a</sup>	-.04	.05	.96
Referrals received from other health care providers	.19	.30	1.45
Hospital-based	-.11	.17	.80
Likelihood Ratio (n, df)	20.92 (311, 8)**		

*Note.*

<sup>a</sup>U.S. Census Bureau (2009) estimates.

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*p* < .01.