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Demographic Characteristics and Rates of Progress of Deaf and Hard of Hearing Persons Receiving Substance Abuse Treatment

Moore, Dennis, 1948-
McAweeney, Mary.

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DEMOGRAPHIC CHARACTERISTICS AND RATES OF PROGRESS OF DEAF AND HARD OF HEARING PERSONS RECEIVING SUBSTANCE ABUSE TREATMENT

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LACK OF DEMOGRAPHIC INFORMATION and data related to the achievement of short-term goals during substance abuse treatment among persons who are deaf or hard of hearing dictated the need for the study. New York State maintains a database on all individuals who participate in treatment. Within this database, 1.8% of persons in treatment for substance use disorder (SUD) were also deaf or hard of hearing. As hypothesized, members of the deaf and hard of hearing sample were older, likelier to be white, and likelier to be female, relative to the SUD-only group. For both groups, alcohol, heroin, and cocaine had the highest rates of reported use. Achievement of short-term goals in the areas of alcohol use, drug use, vocational/educational goals, and overall goals indicated no differences between the deaf and hard of hearing group and the SUD-only group. Implications of these findings are discussed.

**DENNIS MOORE AND
MARY McAWEEENY**

DENNIS MOORE IS A PROFESSOR, DEPARTMENT OF COMMUNITY HEALTH, WRIGHT STATE UNIVERSITY SCHOOL OF MEDICINE, DAYTON, OH. McAWEEENY IS RESEARCH DIRECTOR, SUBSTANCE ABUSE RESOURCES AND DISABILITY ISSUES, WRIGHT STATE UNIVERSITY SCHOOL OF MEDICINE.

It has been more than two decades since researchers first noted the risk of alcoholism among persons who are deaf or hard of hearing (Boros, 1981). It has been speculated that the rate of substance use disorder (SUD) among this population is higher than among the general population (De Miranda, 1998; Peinkoffer, 1994), but the difficulties inherent in measuring alcohol and drug use within the deaf and hard of hearing population have made data collection problematic (Moore & Li, 1998). Barriers such as those associated with communication and intercultural attitudes keep persons who are deaf or hard of hearing hidden within the deaf and hearing impaired community (Lip-

ton & Goldstein, 1997). As Lipton and Goldstein have noted, "As a result of the barriers imposed by communication, and the intercultural attitudes that keep the deaf substance abuser hidden within the deaf and hearing impaired communities, it is difficult to estimate the real number of deaf substance abusers or, obviously, their number in need of treatment services" (p. 735). Despite challenges related to communication modalities, statistical sampling, and the Deaf community's forceful stigmatization of drug and alcohol abuse, a community-based survey of deaf and hard of hearing individuals was undertaken that utilized an interactive American Sign Language-based

kiosk; it found that the patterns of alcohol and drug use within this community were similar to those reported for the general population (Lipton & Goldstein, 1997). Lipton and Goldstein postulated that the rate of substance use in the deaf and hard of hearing community may be roughly equivalent to or less than that among the general population. However, providers of SUD treatment services specifically for the Deaf report that those persons most at risk for problem use are those who are socioeconomically disadvantaged, with limited American Sign Language or written communication skills (Guthmann & Blozis, 2001). Consequently, accurate information about the substance use patterns and rates of SUD within the entire Deaf community may not, as yet, be fully determined.

To clarify our terminology: When we discuss SUD, we are including all psychoactive substances, including alcohol, illicit drugs, and prescription medications. We include both abuse and dependence diagnoses when discussing SUD. To date, there still are little definitive data on the SUD rate among the deaf and hearing impaired population. Regardless of the rate, once a person who is deaf or hard of hearing is identified as needing treatment for a SUD, a set of problems arise. Treatment is mainly designed by hearing people *for* hearing people. Therefore, one would expect the therapeutic environment needed for change (i.e., trust, rapport, and insight into one's personal issues) would be less than adequate for persons with hearing impairment (Lipton & Goldstein, 1997). It follows that a less-than-ideal therapeutic environment would produce less-than-desired short-term goals during treatment. Accordingly, the lack of demographic information and data related to the achievement of short-term goals during treatment

among persons who are deaf or hard of hearing dictated the need for the present study.

The New York State Office for Alcoholism and Substance Abuse Services (OASAS) has addressed disability and vocational issues in the substance abuse treatment setting for a number of years. It is one of the few state agencies that collect relatively detailed disability-related information—including information on hearing status.

Historically, OASAS's working relationship with New York's state office of vocational rehabilitation has been extensive, and this relationship has likely fostered greater sensitivity to these issues. OASAS is one of the largest treatment agencies in the United States, with nearly a quarter million treatment episodes recorded in its database every year.

We were able to obtain a modified copy of the OASAS client treatment episode database for 1998 from the OASAS central office. This database facilitated our efforts to address our two general hypotheses:

1. Clients with hearing impairment and SUD would have demographic profiles (i.e., for age, gender, and race) different from those of persons with substance use disorder only (SUD-O).
2. Clients with hearing impairment and SUD would report less achievement on short-term treatment goals when compared with persons with SUD-O.

Method

After protocols were established for data and client protection, a modified copy of the OASAS client treatment episode database for 1998 was obtained from the OASAS central office. Data were installed on a secured personal computer, and all subsequent

analyses were conducted using SPSS software. The OASAS unique client identifier was created so that persons could not be specifically identified from the entire number. A constructed variable consisting of the shortened client identifier, gender, date of birth, and age was then compiled in order to eliminate duplicate treatments for persons who entered the system more than once in 1998. A total of 98,932 unique cases were available. This sample was too large and had the power to represent negligible effects as being statistically significant. Thus, as recommended by numerous statisticians (Cohen, 1990; Kirk, 1982; Lenth, 2001; Shaver, 1993), a random subsample of 851 unique persons was selected.

A total of 1,762 clients were identified as "hearing impaired," representing 1.8% of the initial total treatment population. This prevalence rate of hearing loss is consistent with the rate for severe and profound hearing loss in the general population. After a subsample was drawn from the 98,932 unique cases, the deaf and hard of hearing group made up 47% of the total sample used in the analysis for the present study. The "hearing impaired" group consisted of both deaf persons who signed and hard of hearing persons who did not use sign language, with the latter subgroup likely being the most prevalent. A separate SUD-O group was created for the purpose of comparing members of the sample who were deaf or hard of hearing with members without disabilities. This group made up the other 53% of the total sample.

Among other specific functioning or status codes were impairment codes that included "hearing impairment" and "no impairment." These ratings are completed at intake by treatment program personnel. The OASAS Client Report Admission In-

structions dictated the rating criteria for impairment coding:

Impairment refers to any condition which renders that body system diminished or less than fully functional. It is understood that many persons cope successfully with physical impairment. However, if the impairment does or has the potential to interfere with successful treatment within the system, it should be noted.

Results

Descriptive analyses consisting of the development of frequencies and crosstabs were completed, followed by tests of significance, chi-square tests, and *t* tests. As Table 1 shows, the deaf and hard of hearing sample was significantly older; included significantly more white women; was more likely to be married, divorced, or separated; and was slightly less educated (though not to a statistically significant extent) when compared to the SUD-O group. This distribution is similar to that reported by Lipton and Goldstein (1997).

Not surprisingly, the deaf and hard of hearing group was receiving Supplemental Security Income, Social Security Disability Insurance, and Social Security benefits at a rate (27.8%) more than 4 times higher than that of the SUD-O group (5.9%).

As Table 2 shows, alcohol was most frequently named as the primary drug of abuse among both groups. These results are similar to those of Moore and Li (1998). Cocaine/crack and heroin had the second- and third-highest rates, respectively. No statistical differences were found between the two groups regarding drug of choice. Given the potentially devastating effects of cocaine and heroin, these findings raise an especially complex therapeutic issue for treatment programs.

Table 1
Demographic Characteristics of the Sample

<i>Characteristic</i>	<i>Substance use disorder + deaf or hard of hearing (n = 407)</i>	<i>Substance use disorder only (n = 444)</i>
Gender^a		
% male	71.3	78.4
Ethnicity^a		
% African American	26.8	45.3
% Hispanic	16.5	18.9
% white	55.0	32.7
% other	1.7	3.2
Age^a (mean years)	38.8	34.5
Education (mean years)	11.84	11.93
Marital status^a		
% never married	44.2	61.3
% married	18.4	12.8
% living as married	5.7	4.1
% separated/divorced	28.2	19.6
% widowed	3.4	2.3
Residence situation		
% house, apartment	82.3	85.4
% homeless	2.7	1.8
% homeless shelter	2.0	3.2
% group/community facility	10.4	9.2
% other	2.6	.4
Primary income source^a		
% wages/salary	29.2	25.0
% SSI/SSDI/SSA	27.8	5.9
% Home Relief/other gov't assistance	18.4	29.8
% family	3.9	14.4
% other	3.2	11.5
% none	17.5	13.9
<i>Notes.</i> Because of rounding, not all sets of percentages total 100.0. SSI, Supplemental Security Income. SSDI, Social Security Disability Insurance. SSA, Social Security benefits.		
^a Significant at <i>p</i> < .05.		

As Table 3 shows, despite the additional challenges in providing treatment for an individual who is deaf or hard of hearing, the goal areas of alcohol use, drug use, and "overall" treatment objectives indicated that the deaf and hard of hearing group reported progress toward goals at equivalent or slightly higher rates when compared to persons in the SUD-O group—except in the area of vocational/educational goals, where no statistical differences were found.

Discussion

An analysis of the OASAS treatment episode database was conducted to compare deaf and hard of hearing individuals with other clients served by chemical dependency treatment programs. Demographic characteristics and attainment of short-term goals were compared, and the two hypotheses were somewhat supported. As hypothesized, deaf and hard of hearing persons with SUD do differ in age, gender, marital status, and race

Table 2
Primary Drug of Abuse

	<i>Substance use disorder + deaf or hard of hearing (n = 407) (%)</i>	<i>Substance use disorder only (n = 444) (%)</i>
Alcohol	51.8	43.5
Cocaine/crack	21.1	23.0
Heroin	15.5	18.5
Marijuana	8.1	12.2
Other drugs	3.5	2.8

Table 3
Rates of Achievement or Partial Achievement of Treatment Goals

	<i>Substance use disorder + deaf or hard of hearing (n = 407) (%)</i>	<i>Substance use disorder only (n = 444) (%)</i>
Overall goals	56.8	54.7
Alcohol use	62.9	61.7
Drug use	59.5	58.4
Vocational/educational	44.3	46.1

when compared to other persons undergoing treatment, but no differences were found between the two groups regarding drug of choice or achievement of short-term treatment goals.

Demographic Characteristics

The deaf and hard of hearing group was older at treatment than the SUD-O group (38.8 years vs. 34.5 years). One possible explanation for the age difference is that hearing loss differentially affects older persons; therefore, persons who are older are more likely to report hearing loss at treatment intake. Another possible explanation is that persons with more severe hearing loss are less likely to be identified as problem users; therefore, there is a longer duration between professional identification of the needs of persons with hearing impairment and referral to treatment (Moore & Lorber, 2004). The relatively older age of the deaf and hard of hearing group may also explain observed differences in rates of mar-

riage and divorce; older clients are more likely to be married or divorced. Nationally, 43% of first marriages end in divorce or separation within 15 years (Bramlett, 2001).

Progress Toward Short-Term Treatment Goals

We hypothesized that persons who were deaf or hard of hearing would report less progress toward short-term treatment goals during treatment when compared to consumers with SUD-O. The data do not support our hypothesis. Progress toward short-term goals during treatment appeared to be comparable across groups. This was somewhat unexpected. Substance abuse treatment is at present an inexact science, with essentially one standard approach used with all clients who receive treatment. Logically, since treatment is designed by hearing people for hearing people, one would expect that the needs of those with hearing impairment might not be met. But the data suggest that this is

not the case. Research specifically related to client satisfaction with treatment might shed more light on this finding. We suggest further research in the area of client satisfaction.

Limitations of the Study

The present study has several limitations. Like the data sets of the few other state alcohol and drug agencies that collect disability data, the OASAS data set does not differentiate people who are deaf from people who are hearing impaired. These are two distinctly different populations relative to how they communicate, their living situations, their cultural norms, and very likely their treatment needs.

It has been reported that persons who are deaf or hard of hearing wish to appear compliant and comprehending in treatment settings, in order to fit in and be accepted (Guthmann & Blozis, 2001). Consequently, if outcome data are based on client self-reporting during treatment or right after the completion of treatment, there may be bias toward overreporting successful outcomes for persons who are deaf or hard of hearing. Perhaps responses would be more objective if questions relating to outcomes and satisfaction with services were asked months after treatment (when the client had had time to settle back into his or her usual lifestyle).

It is not possible, using the OASAS data set, to calculate the number of persons who were excluded or given no options for treatment setting because of their hearing loss. Other studies have found that persons who are deaf or hard of hearing have claimed that in at least 20% of the instances in which they attempted to enter treatment they were denied entry due to their hearing loss and accommodation needs (Lipton & Goldstein, 1997). Community treatment programs that are appropriately accessible have ele-

vated costs for interpreters or alternative communication, and this can be a substantial barrier for the consumer and provider alike (De Miranda, 1998).

Future Directions

The investigation described in the present article provides a useful glimpse of demographic characteristics and progress toward short-term goals among persons who are deaf or hard of hearing and have participated in substance abuse treatment in New York State. However, much more work in this area is necessary. In 1993, our program, Substance Abuse Resources and Disability Issues (SARDI), produced a directory of all substance abuse treatment programs that were specialized for people who are deaf or hard of hearing throughout the United States. Only 22 programs were identified at that time, and this included some that were specialized only because interpreters were available on an as-requested basis. Three years later, nearly half of these programs were no longer specialized to deafness or had closed altogether. In particular, the

costs, complexity, and lack of understanding of issues related to the treatment of persons who are deaf or hard of hearing continue to indicate a great need in the United States.

The limited information in the present study suggests that treatment can be successful in terms of achieving short-term goals during treatment. Unfortunately, the quality and duration of sobriety and recovery are unknown and need to be investigated. Thus, future research needs to be longitudinal in nature, with emphasis on abstinence and the quality of recovery.

Note

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