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A Description of Older Admissions to Substance Abuse Treatment in 2001

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Abstract

Objective. The number of older people with substance abuse problems is expected to increase over the next decade. Given the pending growth in the number of elderly clients needing substance abuse treatment, we provide a description of the older client presenting for admission. Male and female admissions are also compared.

Method. The Treatment Episode Data Set (TEDS), a public use dataset, contains information on 58,073 admissions to substance treatment (aged 55+) and 1,043,910 admissions aged 30 – 54 years.

Results. Older admissions tended to have problems with only once substance, daily use of alcohol. They also were more likely to have an income, insurance, and be married or divorced than younger admissions. Like the younger group, criminal justice was a major source of referral to treatment. The older group had fewer prior treatment experiences.

Older men and women were similar in many regards, but also differed in their treatment history. The current treatment was more often the first for women compared to men.

Older women were more likely to be more educated than older men and started drinking at a later age.

Conclusions. Older admissions to substance abuse treatment differed in important ways from younger adult admissions. The older group tended to come from a more stable environment (income, insurance, marriage). Despite their very high frequency and amount of drinking, few of these admissions were referred to treatment by health care-workers.

Introduction

Older people are generally thought to have fewer problems with substances compared to younger people; however, problem drinking and alcoholism do occur with estimates ranging from 2% to 16% in older groups ¹⁻³. With growing numbers of people aging, the absolute number of older people with substance abuse problems will rise over the next decade. The currently ageing cohort of persons in the United States also has an increased incidence of substance abuse, so problems among elders are expected to accelerate ⁴. Growing awareness and reduced length of stay from changes in insurance coverage and states' reduced budgets may also be factors that increase the number of treatment admissions. A recent report estimates that 4.4 million older adults (over age 50) will be in need of substance abuse treatment by the year 2020 ⁵.

There are indications that this trend may already be evident. One study noted almost a 50% increase from 1988 to 1997 in the number of alcohol related hospitalizations among older people ⁶. Another report on emergency room visits shows a 58% increase in alcohol mentions for patients 55 or older ⁷. Although awareness has improved, these findings are consistent with an increasing number of older people being identified with problem substance use.

Substance abuse among the elderly is often identified when patients present with medical problems secondary to or as a direct result of substance use. Studying trauma cases in the elderly, Zautcke et al ⁸ found that nearly 50% of patients tested were positive for alcohol, and 70% of the positive cases were intoxicated. Falls and driving accidents were

associated with alcohol intoxication in this group. However, an important caveat to these figures is that only about 5% of the trauma cases were tested.

Other secondary medical complications of abuse include alcohol use in the elderly as a risk factor for community acquired pneumonia⁹ and as a factor that complicates recovery from burns¹⁰. Problem drinking also has been associated with disability¹¹ and with late life depression¹². Despite these connections, physicians seldom talk to older people, particularly older women, about their alcohol consumption¹³. Additionally, it is not known if an identified substance abuse problem leads to a referral to substance abuse treatment. Furthermore, substances other than alcohol can also pose abuse problems for the elderly.

Given the pending growth in the number of elderly clients needing substance abuse treatment, we provide a description of the older client presenting for admission including the referral source. The following report is based on a large sample of admissions to U.S. treatment centers during the year 2001. We compare two adult groups with extended exposure time, a middle aged group (30 – 54 years old) and an older group (55+ years old).

Method

Admissions. The Treatment Episode Data Set (TEDS)¹⁴ includes 1,739,796 admissions for the year 2001. Only 1,101,983 cases represent admissions who are between 30 and 54 years of age (n = 1,043,910) or are 55 or older (n = 58,073). The Substance Abuse Mental Health Services Administration (SAMHSA) requests that all public and private

substance abuse treatment programs receiving public funding report admission information to the TEDS system through their state's funding authority. All client admissions, whether publicly or privately funded are included. The unit of analysis is an admission rather than a person. According to 1997 estimates, 83% of all eligible admissions are recorded and include 85% of all eligible providers (i.e., all providers receiving public money).

In order to provide confidentiality, several limitations are placed on the public use administrative data set. For example, provider information has been removed so there is no connection to provider characteristics. In addition, many demographic variables were recoded to represent categorical rather than continuous data (e.g., age) in order to further prevent possible client identification. As these data represent public information and there is no subject identification, the University of Iowa Human Subjects Office exempted this study.

Statistical Analysis. Since the unit of analysis is an admission rather than a person, a person can contribute multiple admissions. This violates the assumption of independent observations for basic statistical hypothesis testing. Since clients are not identified in this data set, it is not possible to adjust for the dependence. Furthermore, given the very large sample size, trivial effects would be highly significant. With these considerations, we opted for a stringent and clinically useful criterion: a 5% shift in frequency or an odds-ratio of over 2.0 for small base rate responses. Either of these criteria would be statistically significant at $p < 0.0001$ with this sample size. Missing data were excluded from calculations. Missing data were generally infrequent, substantially less than 5%, for

most variables. The notable exceptions were living arrangement (24.34%), income (46%), veteran status (41.8%), and health insurance (54.5%). In none of these cases was there a significant difference (> 5 percentage point difference) in the groups. For example, with veteran status the data were missing in 41.7% of the younger admissions and 42.6% of the older admissions. Individual states often did not record these variables producing the larger missing data counts.

Results

Older versus younger admissions. Table 1 shows a comparison of the percentages for younger (30 to 54 years of age) and older (55 or older) substance abuse treatment admissions. Older admissions were more often male compared to the younger admissions. There were fewer African Americans in the older group.

The age groups differed in marital status. The younger group was most often Never Married whereas the older group was most often Divorced/Widowed. There were also more presently married admissions in the older group than in the younger group. More admissions in the older group were living independently. However, they were also considerably more likely than the younger group to be "not in the labor force" and less likely to be full time employed or unemployed. For those not in the labor force, the older group was more likely to be retired or disabled. Correspondingly, the primary source of income was less often from wages and salary, and more likely from retirement/pension/disability and other. Fewer older admissions listed their income source as "None". The older group was also more likely to have veteran status. Older

admissions were less often without insurance than the younger admissions and were covered more often by private insurance and Medicare.

The principal source of referral was remarkably similar for the older and younger admissions. While statistically significant using a simple chi-square test ($\chi^2 = 1426.34$, $df = 6$, $p < 0.0001$), none of the differences in percents met our criteria for significance ($\geq 5\%$). There were slightly more referrals from health care providers in the older than younger group (difference = 3.99%) and slightly fewer from the criminal justice system (-2.6%). Among the criminal justice referrals, however, there were larger differences between the age groups. The older group was more apt to be referred to substance abuse treatment at the level of the courts and as a result of a driving under the influence (DUI) infraction than the younger group. The older group was less often referred as a condition of probation or parole.

At admission, the older group was far more likely to report only one problem substance and to report alcohol as the primary problem. Considering older admissions compared to the younger on any mention of a problem substance (primary, secondary, or tertiary), alcohol (80.83% versus 66.93%; OR = 2.08) was more common among the older group. Frequency of use for the primary substance was similar in both age groups, although the frequency of daily use was slightly elevated in the older group. Restricting the analysis to only admissions where alcohol was listed as the primary substance, the older group drank more often. Among older admissions, 52.98% drank daily while only 42.98% of the younger group drank that frequently. The older group had less often received previous substance abuse treatment.

Older male versus female admissions. There were interesting similarities and differences between the characteristics of older male and older female admissions. Older women were more highly educated than the older men. Nearly a third of the older women had some college (33.23%) whereas 25.30% of the men had attended college. Older female admissions were more likely living independently (84.52% versus 72.59%) and divorced or widowed (51.86% versus 42.59%). Among older male admissions, 17.4% listed themselves as homeless but only 5.22% of women did so. The older female admissions were also more likely Caucasian (74.26%) than the older male admissions (60.9%).

Labor force participation was similar in the older males and females. However, when asked their reasons for not being in the labor force, more of the women (6.6%) listed themselves as homemakers than men (0.20%). Male admissions more often listed other reasons including incarceration (28.37%) than women (21.70%). Fewer females listed their primary source of income as "none" (10.10% versus 17.58%).

Both older male and older female admissions primarily listed alcohol as the primary substance, 76.92% for men and 73.50% for women. Although the percentages were very small, less than 3%, there were more female admissions for tranquilizers (OR = 4.14) and barbiturates (OR = 4.14). The frequency of admissions with only one problem substance was similar for older men and older women (77.89% versus 77.99%). The frequency of use for the primary drug was also somewhat similar, although daily use was slightly higher in men (56.52%) than in the older women (51.81%).

The current admission was more often the client's first in the older women (47.94%) than in the older men (41.95%). There were also fewer female admissions with a chronic history of treatment episodes (10.1% with 5 or more) than male admissions (17.69% with 5 or more). The age of first use also showed a clear difference for the older men and women. This is shown in Figure 1. More male admissions began using alcohol earlier, usually in the teenage years. Older female admissions tended to initiate later. While there was a peak in the 18 to 20 age group, many female admissions began using substances in their subsequent years. Only 10% of the male admissions initiated their substance use after age 29; however, 30% of the female admissions initiated substance use after that age.

In order to see if the initiation to alcohol versus drug differed for the male and female admissions, we plotted the percentage of alcohol versus drug initiation for the different age of first use groups. Figure 2 graphs male and female admissions separately. For these older admissions, when age of first use occurred during the teenage years, alcohol was the predominate substance. For both males and females, alcohol accounted for approximately 90% of the initiations. Conversely, only 10% were initiated to drugs. Both sexed admissions show downward trends in alcohol initiation and, correspondingly, upward trends in drug initiation after age 20. Notably, for those admissions who report first use after the age of 55, male and females again converge with increased alcohol initiation. Males and female admissions begin to diverge at age 20 and continue until the mid-fifties. Older female admission who first used substances did so with alcohol more so than then the male admissions.

Discussion

The older admissions (aged 55 or older) to substance abuse treatment differ in important ways from younger admissions (aged 30 to 54). The older group was far more likely to report only one problem substance, namely alcohol, than younger admissions. As a group, older clients may have had more stable histories than their younger counterparts. For example, the older admissions were likely currently or previously married, living independently, and more often had a source of income. Their substance abuse history suggests fewer past treatment episodes, especially in the older female admissions.

The older group also had a higher frequency of daily use compared to their younger counterparts. Most of the older clients started drinking at an early age, as did the younger clients.

Relatively few older admissions reported that they were referred by a health care professional despite their prolonged use. Health care referrals were only slightly elevated in the older group (approximately 12% compared to 8% in the younger group). This finding further highlights missed opportunities for health care professionals to make treatment referrals in the elderly substance abusing population. The general lack of referrals for this group from health care has been reported previously^{3;13}.

After self-referrals, the criminal justice system remained the predominant source of referrals to substance abuse treatment. However, this was usually at the level of the court or because of a charge for driving while intoxicated for the older group. This differed from the younger group who were more often involved with probation and parole.

There were also differences between the older male and older female admissions. The older male admissions began consuming their primary substance, predominantly alcohol, at an early age. Male admissions in the older group began drinking in their mid to early teenage years, so they had been drinking for nearly 40 years. The female admissions were much more varied in the age of first use and were, on average, older than men were when they began.

The older admissions may have had a lifelong problem, a gradual increase over a prolonged period, or a long period of normal use followed by a more sudden onset connected to a life change from growing older, e.g., retirement, health problems, or late-life depression. Alternatively, older admissions might have had sporadic periods of problem drinking interlaced with more stable periods.

These data do offer a hint that for many of the older client admissions, the course was not a lifelong problem. The vast majority was living independently with an income and many had insurance. Most were or had been married. These findings suggest that, at least for many, there had been a stable period in their lives. On the other hand, these individuals could represent a class of high functioning "successful" alcoholics.

Many of the older clients had never had a prior treatment experience. This lack of prior treatment replicates findings from the other older populations, e.g., a random sample of elderly Iowans ¹⁵ and elderly state prison inmates ¹⁶.

Most of the older admissions, males and females, drank daily, so that physical dependence may be likely. The potential for health problems ¹⁷ during detoxification is

increased and poses risks for older clients during withdrawal¹⁸. The lack of specialized treatment programs for the elderly¹⁹ is a notable problem in this context.

There are several limitations to these data. For example, while most of the information analyzed had relatively little missing data, some states did not record a few of the variables (e.g., veteran status, source of income). This resulted in high levels of missing data for these few variables. As noted, these data also represent admissions and not clients. Some individuals are prone to multiple admissions, for example, the older admission group reported fewer prior admissions than the younger admission group and the older female admissions more often reported that this was their first admission than did the older male admissions. Thus, even though this was a one year period, multiple admissions may influence some of the differences seen. Furthermore, some groups of individuals may obtain substance abuse treatment in other venues not covered by the TEDS database. For example, veterans may receive treatment in the Veterans Administration system and clients with private insurance may go to nonreporting private facilities. While these results may be valid for admissions to publicly funded facilities, inferences about individual clients should be cautioned. Finally, we have no information about the reliability or validity of these administrative data.

The description of the older admission seen here is a snapshot from 2001. We expect to see an increase in the numbers of older people referred for substance abuse treatment in the near future because of the aging of our population and other factors including cohort effects. The picture of the older substance abuser may change in the near future. The people in our younger group will age, and those among them that continue to abuse

substances may appear in the future as older admissions. Furthermore, as the general population ages, we may see different kinds of clients becoming referred to substance abuse treatment. To add to the uncertainty of the future older admissions, changes in drug laws or increased use of mental health and drug courts may modify the patterns, since the criminal justice system is a major referral source.

From the present data, however, several patterns are evident. For example, many older people with problems do not obtain treatment, and we do not have an adequate description of these untreated clients. Furthermore, with the aging of the baby boomer cohort, there may be changes in the preponderance of alcohol being the primary problem. However, over the next several years this description ought to form a reasonable baseline for projections. We hope this description will provide some preliminary expectations regarding the older client to facilitate planning substance abuse treatment services, especially in centers that intend to have a focus on the older client.

Table 1: Comparison of Younger (30 – 54 years old) and Older (55+ years) Admissions to Substance Abuse Treatment in 2001.

	Younger (n = 1,043,910)	Older (n = 58,073)
Sex		
Male	69.13%	79.84%*
Female	30.87%	20.16%*
Education		
8 years or less	6.83%	14.76%*
9-11	25.61%	20.61%*
12	44.74%	37.74%*
13-15	17.58%	16.35%
16 or more	5.24%	10.55%*
Race		
Alaskan native (Aleut, Eskimo, Indian)	0.40%	0.52%
American Indian (other than Alaskan natives)	1.98%	2.24%
Asian or pacific islander	0.71%	0.60%
Black	28.88%	23.24%*
White	57.76%	63.60%*
Other	10.27%	9.80%
Marital status		
Never married	42.50%	18.71%*
Now married	21.53%	28.47%*
Separated	9.03%	8.27%
Divorced/widowed	26.94%	44.55%*
Living arrangement		
Homeless	15.16%	14.94%
Dependent living	17.64%	10.06%*
Independent living	67.20%	75.00%*
Employment status		
Full time	24.74%	17.36%*
Part time	5.85%	4.99%
Unemployed	26.18%	15.82%*
Not in labor force	43.23%	61.82%*
Reasons 'Not in labor force'		
Homemaker	4.09%	1.56%

Older Treatment Admissions

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Student	2.40%	0.96%
Retired/disabled	33.37%	70.54%*
Other/inmate of institution	60.14%	26.94%*
Veteran status		
Yes	7.76%	21.71%*
No	92.24%	78.29%*
Primary source of income		
Wages/salary	36.09%	24.45%*
Public assistance	11.28%	9.07%
Retirement/pension/disability	6.09%	22.97%*
Other	19.89%	27.49%*
None	26.66%	16.02%*
Health insurance		
Private insurance	11.71%	17.68%*
Medicaid	15.48%	12.98%
Medicare/other (e.g. TRICARE)	8.74%	17.72%*
None	64.07%	51.62%*
Principal source of referral		
Individual (includes self-referral)	40.68%	41.05%
Alcohol/drug abuse care provider	12.78%	13.02%
Other health care provider	8.00%	11.99%
School (educational)	0.08%	0.08%
Employer/EAP	1.19%	1.30%
Other community referral	9.26%	7.14%
Court/criminal justice referral/DUI/DWI	28.01%	25.41%
Detailed criminal justice referral		
State/Federal court, formal adjudication	30.67%	38.91%*
Probation/parole, prison	51.75%	35.36%*
DUI/DWI	11.21%	21.53%*
Diversionsary program, other	6.37%	4.21%
Number of substances reported at admission		
1	46.04%	77.13%*
2	33.42%	16.72%*
3	20.54%	6.16%*
Primary problem Substance		
Alcohol	50.46%	76.29%*
Cocaine/Crack	16.81%	5.43%*
Marijuana/Hashish	5.08%	1.39%

Older Treatment Admissions

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Heroin/Other Opiates	21.06%	14.30%*
PCP	0.12%	0.02%
Hallucinogens	0.06%	0.02%
Stimulants (Methamphetamine, Other Stimulants)	5.05%	0.79%
Tranquilizers (e.g., benzodiazepine)	0.44%	0.66%
Barbiturates, Other Sedatives/Hypnotics	0.23%	0.25%
Inhalants	0.03%	0.02%
Over-The-Counter Medications	0.03%	0.03%
Other	0.63%	0.80%
Frequency of use (primary)		
No use in the past month	21.33%	19.04%*
1-3 times in the past month	8.98%	8.03%
1-2 times in the past week	7.85%	7.37%
3-6 times in the past week	10.42%	9.92%
Daily	51.43%	55.63%
Number of prior treatment episodes		
No prior treatment episodes	36.88%	43.24%*
1 prior treatment episodes	21.53%	19.61%
2 prior treatment episodes	13.12%	10.90%
3 prior treatment episodes	7.94%	6.44%
4 prior treatment episodes	4.67%	3.61%
5 or more prior treatment episodes	15.87%	16.21%

* Difference between groups is greater than 5 percentage points.

Figure 1: Older male (n = 39,322) and female (n = 9,542) admissions reported age of first use for the primary problem substance.

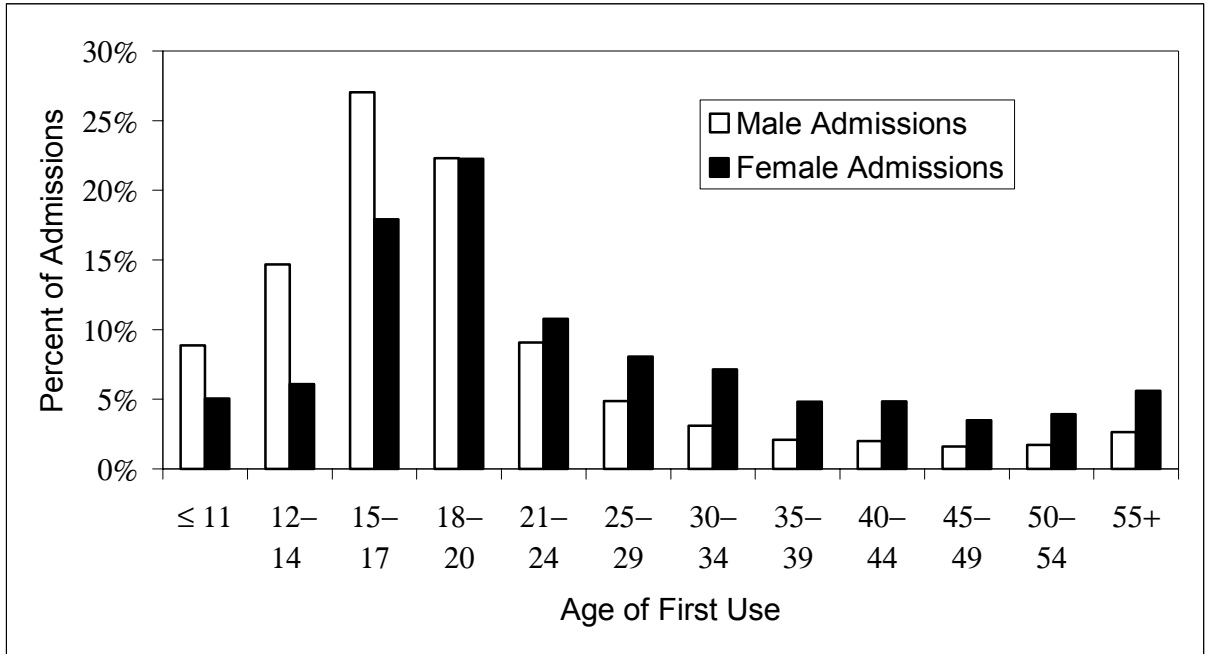
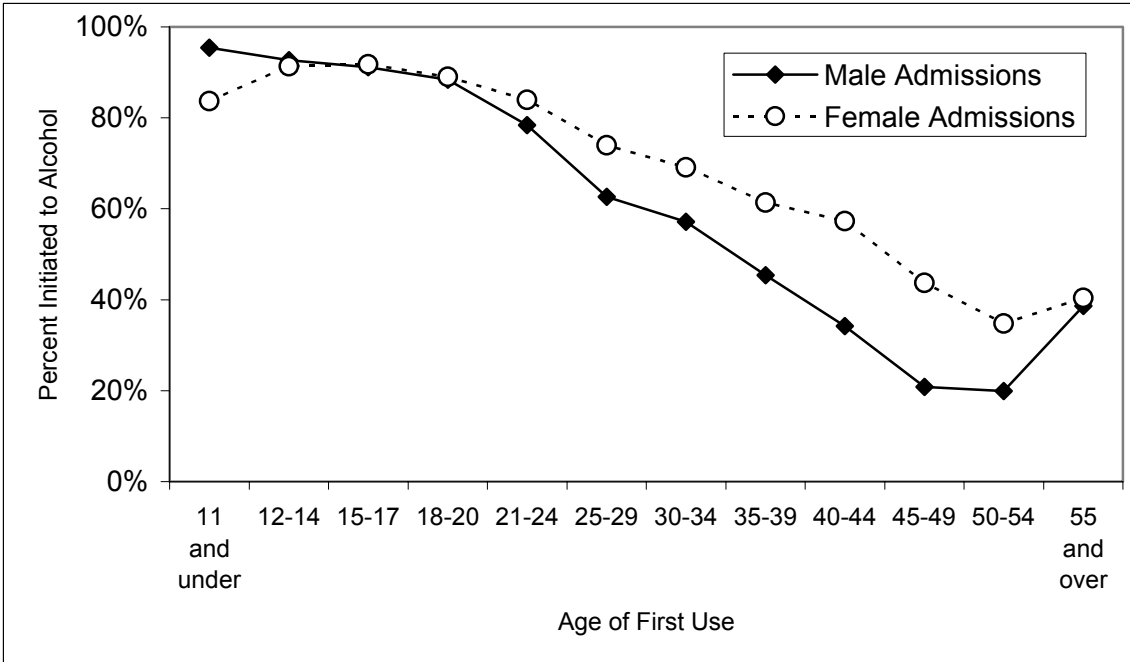


Figure 2: Percent of alcohol (versus drug) initiation for each age of first use group and for male versus female admissions.



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