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Social roles and alcohol abuse among older men and women

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A SIGN IN a neighborhood liquor store proclaims Tuesday is senior citizen discount day. Each Tuesday, customers age 55 and older receive a 10% discount on their purchase of alcoholic beverages. This policy encouraging alcohol use by older adults is unsettling since demographic trends, the biomedical correlates of aging, and social roles of older men and women in this country all suggest the possibility of a significant and growing problem of alcohol abuse by the elderly. The purpose of this paper is to review these factors and to present some recent data comparing older men and women with each other and with younger adults in their drinking behavior and problems. Among older adults, comparisons are also made by marital and employment status.

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DEMOGRAPHIC TRENDS

The rapid growth of the elderly population is sufficient to guarantee that the health care professions and society will be faced with more and more alcohol abuse by the aged. These trends and their implications for drug misuse by the elderly are reviewed by Lipton and Lee.¹ The number of elderly persons in the United States has doubled since 1950 and currently about 13% of the population is age 65 or older. This percentage is expected to increase to over 20% by the year 2030 when most of the baby boom generation will have reached age 65 or older. In addition to their sheer numbers, four characteristics of today's elderly may contribute to increased alcohol problems of older Americans. These unique experiences compared with those of previous generations are referred to as cohort effects.

First, many men and women over 55 years today came of age during the post-World War II "drinking binge."² Total adult per capita annual alcohol consumption is estimated to have been under two gallons in the several years preceding World War II. Annual consumption rose steadily after the war to 2.8 gallons in 1978.³ Although per capita beer and spirit (but not wine) consumption appears to be declining in recent years,² today's cohort of older Americans formed their adult drinking habits during a period of relatively heavy aggregate drinking.

A second cohort experience which probably contributed to the aggregate increase in alcohol consumption is the increased acceptability of alcohol use by women. The evidence for sex-role convergence in drinking patterns and problems is mixed and

depends on which drinking problem or behavior is being considered.⁴⁻¹³ Several recent reviews of this research literature conclude that greater convergence has occurred for the percentage of men and women who drink at all than has occurred for the incidence of heavy drinking or alcoholism.^{5,6,11,13} This has come about as fewer women than in earlier cohorts abstain from alcohol. Even this modest trend could be important for the elderly who, because of other drug use, risk adverse consequences from low doses of alcohol.

Compared with previous generations, today's elderly tend to live longer following retirement from the work force. Not only do retirees live longer, but they also enjoy more years of good health and mobility combined with more favorable financial circumstances than previous generations. This improved quality of life could reduce some stresses conducive to alcohol abuse,¹⁴ but there is also the possibility that the increase in leisure time and disposable income facilitate drinking.

The fourth cohort experience is a dramatic increase in the use of prescription drugs by the elderly.¹ This may seem paradoxical in light of the previously described improvements in longevity and health, but it is largely a result of pharmacologic developments of the past several decades. Prescription drugs have been developed and marketed for an ever-widening array of diseases and conditions. The number of prescriptions dispensed by community pharmacies rose from approximately 363 million in 1950 to 1.6 billion in 1985.¹ This increase far outstripped population growth over the same period. Older adults use more prescription drugs than do young

adults.¹⁵ Increased use of psychotropic drugs is particularly noteworthy. Men and women age 45 and older are more likely than younger men and women to report past year use of sedatives and tranquilizers.¹⁶ Further, Lipton and Lee¹ review studies suggesting the elderly are at risk for inappropriate long-term use of sedatives and anti-anxiety drugs. These patterns in prescription drug use are of concern because the combined effects of alcohol and such drugs are often unpredictable and synergistic—that is, greater than the sum of independent effects.

BIOMEDICAL CORRELATES OF AGING

The high levels of prescription drug use are natural outgrowths of aging as older adults experience more acute and chronic conditions causing them to see physicians and receive prescriptions more frequently. Alcohol-drug interactions and adverse consequences, however, can be compounded by biologic processes accompanying aging. These changes affect alcohol and drug absorption, metabolism, distribution, and elimination.¹⁷ For instance, because of their small volume of body water and lean body mass, the elderly reach significantly higher peak blood levels of alcohol per dose.¹⁸ Further, the increase in fatty tissue relative to total body weight in the elderly may cause fat-soluble drugs, such as diazepam, to have lower concentrations at the site of action and more gradual release into the bloodstream and eventual elimination.¹ This creates a potential for unintended drug-alcohol interactions.

ALCOHOL ABUSE AND ROLE LOSS IN OLD AGE

Many life transitions in old age such as retirement, empty nest, and widowhood are associated with the loss of socially valued roles. The relationship of these role losses to alcohol use and alcohol-related problems has not been sufficiently addressed in research on older populations. The relationship between alcohol abuse and role loss may be reciprocal and reinforcing. On the one hand, stress, depression, and diminished self-esteem ensuing from the loss of valued identities could motivate older men and women to drink more^{19,20} or to obtain psychotropic drugs which interact with previously established alcohol consumption. On the other hand, role losses in old age may be accelerated by problem drinking as when the older worker fired for absenteeism or being drunk on the job decides he is “retired” or the marriage of a heavy-drinking couple is cut short by an alcohol-induced accident or illness.

OVERVIEW OF ANALYSES

The purpose of this paper is to present descriptive data from a recent nationally representative survey on alcohol and drug use and problems resulting from alcohol or drug use. The analyses allow comparison of

The relationship between alcohol abuse and the loss of socially valued roles may be reciprocal and reinforcing in older populations.

drinking behavior and problems of men and women age 55 and older with the drinking behavior and problems of younger men and women. Among older men and women, the relationship of recent alcohol abuse to marital and employment roles is also explored. Alcohol abuse in these analyses is operationalized by four measures:

1. frequency of intoxication,
2. use of alcohol in combination with some other drug or drugs,
3. an 18-item symptom inventory that emphasizes circumstances and manner of alcohol use (eg, morning drinks, sneaking drinks), and
4. experiencing one or more of five adverse personal consequences of alcohol or drug use.

METHOD

Sample and procedure

The data for this study are from the 1985 National Household Survey on Drug Abuse (NHSDA) sponsored by the National Institute on Drug Abuse (NIDA) and the National Institute on Alcohol Abuse and Alcoholism (NIAAA).²¹ In the second half of 1985, in-person interviews were conducted in respondents' homes using self-administered question and answer sheets for sensitive questions. The sample was designed to represent the household population of the United States (excluding Alaska and Hawaii) aged 12 and above. The household population excludes persons residing in group quarters and institutional settings such as prisons, hospitals, dormitories, rest homes, hotels, rooming houses, and military installations as well as the homeless. A total of 8,038 interviews were completed, for a response rate of 83.5%.

Because of particular analytic concerns, the 1985 NHSDA survey oversampled blacks, Hispanics, and those under 35 years of age. The large sample size, however, assures sufficient cases to compare adults age 55 and over ($n = 915$) with younger adults ($n = 4,877$). Youths age 12 to 17 are not included in analyses reported here. Since race or ethnic status is only negligibly related to the alcohol measures in these analyses, the data are not weighted to compensate for oversampling of blacks and Hispanics.

Measures

Four indicators of potentially health-threatening alcohol abuse are considered in these analyses: (1) the number of days during the past year in which the respondent was drunk, (2) past year use of alcohol and some other drug on the same occasion, (3) reporting one or more of 18 past year drinking experiences believed to be symptomatic of problem drinking, and (4) reporting one or more past year life consequences which the respondent attributed to alcohol or drug use.

The measure of days drunk was created by assigning midpoint values to the nine ordinal scale responses related to the question, "How many times in the past 12 months have you gotten very high or drunk on alcohol?" Responses ranged from never to daily intoxication. A person who answered daily is scored 365; a person who indicated the category 12–24 days is scored 18, and so forth. The resulting measure of days drunk is more immediately interpretable than the nine-point scale, but it should be remembered that this measure is not truly interval.

The measure of simultaneous alcohol and drug use is based on responses to the question, "In the past 12 months, did you drink beer, wine, or liquor and also use some other drug on the same occasion, that is at the same time or within a couple of hours of using alcohol?" Respondents were asked to indicate any of nine types of drugs they used in combination with alcohol. These included sedatives, tranquilizers, stimulants, analgesics (such as Darvon, Demerol, and Percodan), marijuana, inhalants, cocaine, hallucinogens, and opiates. Respondents are scored as simultaneous alcohol and drug users if they used any of these nine drug classes in combination with alcohol. Since the aged are believed to be particularly vulnerable to combined effects of alcohol and prescription rather than illicit drugs, a second measure of simultaneous use was created that only included sedatives, tranquilizers, stimulants, and analgesics. Because results with this measure do not differ substantially from those obtained with the more inclusive measure, only the results with all nine drug types are reported.

The 18 symptoms of problem drinking were listed on an answer sheet presented to respondents near the end of the interview. Respondents were asked to indicate whether they had experienced each of the symptoms in the previous year. These drinking experiences included morning drinking, drinking alone, sneaking drinks, blackouts, being told by significant others to cut down on drinking, having problems at work due to drinking, and aggression or arguments while drinking. Though the possible range of drinking symptoms is 0 to 18, the scale is highly skewed with most respondents indicating none or only one of the 18 drinking experiences. Therefore, in analyses re-

ported here, the scale is collapsed to a simple dichotomy indicating whether the respondent reported any of the problem drinking symptoms.

The last alcohol abuse measure concerns adverse personal life consequences which respondents attribute to their past year alcohol or drug use. These life consequences are (1) driving unsafely, (2) having serious money problems, (3) having trouble with the police, (4) skipping four or more regular meals in a row, and (5) requiring emergency medical help. Only about one in 10 adult respondents in the survey reported any of the five personal consequences of substance use, so the measure is collapsed to a simple dichotomy scored 0 for no personal consequences or 1 for any of the consequences. Since respondents could attribute these personal problems to either their alcohol or drug use, this is not strictly an alcohol problem measure. In fact, though, the majority of persons (68%) who reported problems attributed them to alcohol or to the combined effects of alcohol and drugs rather than to drug use alone.

In addition to age and sex differences in alcohol abuse, employment and marital roles are also considered. Respondents are considered to be employed full-time if they work 35 or more hours per week in paid employment. Respondents employed less than 35 hours per week are coded as part-time employed. The unemployed category includes respondents describing themselves as homemakers, but those describing themselves as retired or disabled are coded in a separate category. The marital status measure has four categories: (1) married or cohabiting, (2) widowed, (3) divorced or separated, and (4) never married.

RESULTS

Sex and age differences in alcohol abuse

Age and sex differences in the four measures of past year alcohol abuse are reported in Table 1. Two patterns generalize across alcohol abuse measures. Abuse tends to decline with age and men abuse alcohol more than do women.

The top panel of Table 1 indicates age and sex differences in the average number of days respondents were "very high or drunk on alcohol" in the year preceding the interview. Intoxication is much more frequent among young adults than among older adults. Women age 18–25 average seven days in the past year during which they were drunk, but women age 55 and older were drunk only about one day on average. Among men, intoxication is also more frequent in the 18–25 age group and declines thereafter. One exception, however, is the apparent rise in average frequency of intoxication among men age 65 and older compared with men age 55–64. Men age 55–64 have the lowest mean frequency of intoxication (about 5 days) of any age group, but the men age 65 and older report being intoxicated almost as frequently (14 days) as young men (20 days). In each age category, men report more frequent intoxication than do women. There is no clear trend toward "convergence" or more similar drinking behavior among younger men and women. Rather, the smallest sex difference in past year frequency of intoxication is observed in the 55–64 age group (4.6 days drunk for males, 1.3 females), but the sex difference widens again with the upsurge in frequency of intoxication among the oldest men.

The second panel of Table 1 shows the percentages of respondents who used alcohol and drugs on the same occasion at least once in the year prior to being interviewed. Nearly 17% of adults in the National Household Survey report simultaneous alcohol and drug use. This phenomenon, however, is quite rare among adults age 55 and older. Less than one half of 1 percent of these older adults report using alcohol in combination with drugs. Indeed, not one of the 601 women age 55 and older reported using alcohol and drugs together. Simultaneous alcohol and drug use is most common among young adults age 18 to 25. Nearly 33% of these young men and 22% of

Nearly 17% of adults in the National Household Survey report simultaneous alcohol and drug use. This phenomenon, however, is quite rare among adults age 55 and older.

young women report past year use of alcohol and another drug on the same occasion. Additional analyses not shown in Table 1 reveal that the drug most frequently used in combination with alcohol is marijuana. Even when the simultaneous drug and alcohol use measure is limited to the four classes of prescription psychoactives (tranquilizers, sedatives, analgesics, and stimulants), the same clear pattern appears. Combined alcohol and drug use is most common among young adults.

The third panel of Table 1 shows the percentages of respondents who experienced one or more of the symptoms of problem drinking in the year before the interview. Again we see problem drinking

Table 1. Means and percentages by age group and sex of past year drinking experiences of adults in the 1985 National Household Survey on Drug Abuse (N = 5,792)

	Age group						Total
	18-25	26-34	35-44	45-54	55-64	65+	
Drinking experience							
1. Average number of days drunk							
Men	200	15.8	11.1	9.7	4.6	140	15.6
Women	7.4	4.8	3.9	3.0	1.3	12	4.8
Total	130	9.2	7.3	5.9	2.5	5.5	9.2
2. Percent who used alcohol simultaneously with a drug or drugs							
Men	32.6	27.8	10.8	7.4	1.5	1.1	22.8
Women	22.5	14.1	7.4	1.0	0.0	0.0	12.8
Total	270	19.6	9.0	3.8	0.5	0.4	16.9
3. Percent reporting one or more of 18 problem drinking symptoms							
Men	48.1	42.3	35.2	29.4	20.1	16.7	39.5
Women	27.8	19.6	17.0	11.8	5.4	3.6	18.7
Total	36.8	28.7	25.6	19.7	10.6	8.0	27.3
4. Percent reporting one or more of five personal consequences of alcohol or drugs							
Men	22.6	20.0	12.0	8.0	5.9	6.1	17.4
Women	11.9	8.4	4.3	1.5	0.0	1.1	7.3
Total	16.7	13.1	7.9	4.4	2.1	2.8	11.5
Number of cases (n)							
Men	800	870	250	163	134	180	2,397
Women	1,013	1,296	282	203	242	359	3,395
Total	1,813	2,166	532	366	376	539	5,792

declines with age. Nearly half of the men age 18–25 report one or more of the problem drinking symptoms, but the percentage declines steadily with age. With this measure of alcohol abuse, we do not see the upturn among the oldest men that was observed for frequency of intoxication. About 20% of the men age 55–64 and 17% of men 65 and older report one or more of the 18 problem drinking symptoms. Symptoms also decline with age among the women. About 28% of the youngest women but only 4% of the oldest women report any symptoms.

Finally, the fourth panel of Table 1 shows percentages by age group and sex of respondents who report any of the five personal consequences of alcohol or drug use. Here we see steady declines with age until the 55–64 age category (from 17% down to 2%), but a slight increase in personal consequences among the oldest respondents (3%). As with the other three alcohol abuse measures, the occurrence of personal consequences is greater among men than among women in each age category. These five personal consequences of alcohol or drug abuse are quite rare among older women. Not one of the 242 women age 55–64 reported any of the five adverse personal consequences, and only about 1% of older women (65+) reported any.

Marital status and alcohol abuse by older men and women

Analyses of the relationship of alcohol abuse to marital roles of older men and women are reported in Table 2. None of the four measures of recent alcohol abuse is significantly related to marital status among the older women. Among older men, those

who are married or cohabiting tend to be least at risk for alcohol abuse. Older married or cohabiting men report being drunk significantly less often in the past year (4 days) than do widowed (16 days), never married (38 days) or divorced or separated older men (16 days). The never married older men are also significantly more likely than married men to have used alcohol simultaneously with drugs (5% compared with less than 1%). The married men are less likely than any of the unmarried men to report one or more symptoms of problem drinking, but none of the differences reaches statistical significance. Finally, divorced, separated, and never married older men are significantly more likely to report one or more of the adverse personal consequences of alcohol or drug use (16–17%) than are older married men (less than 4%).

Employment status and alcohol abuse by older men and women

Analyses of the relationship of alcohol abuse to employment roles of older men and women are reported in Table 3. Employment status is not significantly related to any of the measures of alcohol abuse among older women. Among older men, alcohol abuse is lowest among those who are either retired or working full-time and highest among men who work part-time or are unemployed. Older men who work full-time or are retired or disabled report infrequent past year intoxication (2 and 7 days respectively). Older men who work part-time, however, average being drunk over 30 days in the previous year and the 11 unemployed older men report very frequent intoxication (over 80 days average). A similar pattern is observed for the percent-

Table 2. Relation of past year drinking experiences to marital status of men and women age 55 and older in the 1985 National Household Survey on Drug Abuse (N = 913)

Marital status	Average days drunk		Percent who used alcohol with a drug or drugs		Percent with one or more symptoms		Percent with one or more consequences		n	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Married/cohabiting	4.1	1.4	0.5	0.0	13.5	3.9	3.5	0.0	200	232
Widowed	16.3*	1.5	3.4	0.0	18.6	3.8	5.1	1.5	59	263
Divorced/separated	18.6*	0.3	0.0	0.0	22.9	7.0	17.1*	0.0	35	71
Never married	38.3*	0.3	5.3*	0.0	21.1	5.9	15.8*	0.0	19	34

Note: Analysis of percent with one or more symptoms of problem drinking excludes the item concerning spouse telling respondent to cut down on drinking.
*Significantly different from married or cohabiting ($p < .05$, two-tailed test)

Table 3. Relation of past year drinking experiences to employment status of men and women age 55 and older in the 1985 National Household Survey on Drug Abuse (N = 914)

Employment status	Average days drunk		Percent who used alcohol with a drug or drugs		Percent with one or more symptoms		Percent with one or more consequences		n	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Working full time	2.1	0.2	2.6	0.0	15.4	4.5	5.1	0.0	78	89
Working part time	31.0*	7.0	0.0	0.0	42.9*	3.8	9.5	0.0	21	52
Unemployed	83.8*	0.5	9.1	0.0	45.5*	3.7	27.3*	0.5	11	187
Retired/disabled	6.9	1.0	0.5	0.0	15.2	4.8	4.9	1.1	204	272

Note: Analysis of percent with one or more symptoms of problem drinking excludes three items concerning drinking affecting employment.
*Significantly different from full-time employed ($p < .05$, two-tailed test)

age reporting one or more of the symptoms of problem drinking. Over 40% of the unemployed or part-time employed older men report having one or more symptoms, but only about 15% of the full-time or retired workers report any symptoms. Finally, the unemployed older men are significantly more likely to report one or more of the five adverse personal consequences of alcohol or drug abuse (27%) than are full-time workers or the retired (5%).

DISCUSSION

Alcohol abuse, as indicated by the four measures in this study, is much less common among older men and women than among young adults. Depending on the measure of alcohol abuse, risk ratios of young adults (age 18–25) compared with older adults (55+) range from about 3:1 for average frequency of intoxication to 62:1 for combined alcohol and drug use. This latter ratio is particularly striking as the relatively high rate of prescription psychoactive drug use by the aged has been speculated to place them at risk for alcohol-drug interactions. Given their relatively infrequent intoxication, it is not surprising that older adults are less likely than young adults to report symptoms of problem drinking or adverse personal life consequences of alcohol or drug abuse. Older adults are not immune to drinking problems, however. Even though this study employed a different index of problem drinking symptoms, the results are remarkably congruent with Shuckit's estimate that one in 10 elderly persons has a drinking problem.²²

Men account for most of the alcohol abuse by respondents age 55 and older in this survey. Again, the exact male to female

ratio varies across alcohol abuse measures but is greater than 4:1 for each of the four indices. Male to female ratios are smaller in the younger age groups, but the absolute sex differences at younger ages are, if anything, greater than the differences observed for older adults. Fillmore reports greatest similarity of men's and women's drinking in the thirties compared with younger or older adults.²³ The apparent difference between her results and those reported here stems from Fillmore's emphasis on risk ratios rather than absolute differences. Neither these data nor the national data reported by Fillmore provide clear evidence for the convergence thesis that male and female drinking patterns have become more similar in recent cohorts.

The expectation of convergence is premised on the assumption that increased female labor force participation will expose women to more drinking occasions,^{9,24} so it is interesting to note that among older women, those who work full-time are no more at risk for alcohol abuse than women who work part-time or who are not employed. In fact, employment status of older women is unrelated to any of the alcohol problem measures. Nor is the marital status of older women related to alcohol abuse.

Marriage and full-time employment are negatively related to alcohol abuse by men. Two possible explanations of this pattern should be addressed in further research. According to the protection hypothesis, marriage and full-time employment discourage older men from excessive or uncontrolled drinking. The selection hypothesis, on the other hand, emphasizes alcohol abuse as a cause of role loss (ie, women and employers reject men with drinking problems). The findings in this study that widowhood and

retirement are less associated with alcohol abuse by older men than are unemployment, divorce, separation, and never marrying seem to favor the selection explanation. The lack of employment or marital status differences for older women may also be consistent with the selection hypothesis if the selection effects only operate at some fairly high threshold of alcohol abuse which fewer women than men reach. The selection and protection hypotheses, however, are not mutually exclusive. Both processes could operate and further longitudinal research is needed to disentangle them.

Several limitations of these data should also be redressed in further research. It is possible the sample and measures of the National Household Survey underestimate alcohol problems of the aged. Because chronic alcohol abuse can result in death, incarceration, or other institutionalization, a household survey will undersample adults who may have abused alcohol for many years. In addition to undersampling, this self-report survey probably suffers from underreporting of socially undesirable behaviors. The self-administered answer sheets of the Household Survey encourage honest responses, and the alcohol questions may have seemed relatively benign in the context of many questions concerning illicit drug use. Nevertheless, older respondents,

especially older women, may perceive greater social disapproval of alcohol abuse and therefore underreport drinking problems. Finally, it is possible that the National Household Survey failed to ask some questions that are especially relevant to alcohol problems of older adults. For example, the questions concerning use of alcohol in combination with other drugs did not include over-the-counter medications or prescription medications other than tranquilizers, stimulants, sedatives, and analgesics. Adjustments for these problems in sampling, self-reports, and measurement would undoubtedly increase the estimates of older men and women experiencing alcohol problems.

It is unlikely, however, that such adjustments would alter the observed relationships between variables. The age and sex differences observed here are large and so consistently observed across alcohol abuse measures as to leave little doubt of their validity. The large sex differences and the considerable evidence of "maturing out" of alcohol abuse in this national survey lend support to Fingarette's²⁵ and Cahalan's²⁶ emphasis on problem drinking as behavior subject to individual and social control. A better understanding of these control processes could inform prevention and intervention efforts.

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