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Self-Reported Prevalence of Alcohol Screening Among U.S. Adults

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Abstract

Introduction—The U.S. Preventive Services Task Force recommends for adults alcohol screening and brief behavioral counseling interventions in primary care settings. However, there is a paucity of population-based data on the prevalence of alcohol screening. This study examines adherence to this U.S. Preventive Services Task Force recommendation by estimating the prevalence of alcohol screening by demographic characteristics and binge drinking.

Methods—A cross-sectional analysis was conducted in 2013 and 2014 on data from the 2013 fall wave of the ConsumerStyles survey. ConsumerStyles is drawn from an Internet panel randomly recruited by probability-based sampling to be representative of the U.S. population. Data from 2,592 adult respondents who visited primary care physicians in the last year were analyzed to determine the prevalence of alcohol screening.

Results—Only 24.7% of respondents reported receiving alcohol screening. The prevalence of screening was similar among women (24.9%) and men (24.5%). Black non-Hispanics reported a significantly lower prevalence of screening than white non-Hispanics (16.2% vs 26.9%, prevalence ratio=0.60, 95% CI=0.40, 0.90). College graduates reported a significantly higher prevalence of screening than respondents with a high school degree or less (28.1% vs 20.8%, prevalence ratio=1.35, 95% CI=1.08, 1.69).

Conclusions—Only about one in four respondents who visited a primary care physician in the last year reported being screened for alcohol misuse. Therefore, many men and women who misuse alcohol are unlikely to be identified. Increased screening may help reduce alcohol misuse and related negative health outcomes.

Introduction

Alcohol is associated with an increased risk of many health problems including fetal alcohol spectrum disorders, liver cirrhosis, several types of cancer, and motor-vehicle crashes.[1]

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Since 2004, the U.S. Preventive Services Task Force (USPSTF) has recommended screening and brief behavioral counseling interventions in primary care settings to reduce alcohol misuse by adults.[2] The USPSTF defines levels of alcohol misuse into four categories: risky or hazardous, harmful, abuse, and dependence.[2] The National Institute on Alcohol Abuse and Alcoholism recommends rescreening annually for patients who were not misusing alcohol at their last screening and rescreening at least annually for patients who were drinking at risky levels.[3]

This study examined the prevalence of alcohol screening among adults who reported visiting a primary care physician in the past 12 months, by demographic characteristics and self-reported binge drinking, using data from an Internet panel survey.

Methods

Study Sample

Data in this cross-sectional study are from the fall 2013 wave of the ConsumerStyles Internet panel survey conducted among adults (aged ≥18 years) by Porter Novelli Public Services. The fall wave, which focused on health-related conditions, knowledge, attitudes, and information sources, was sent to a random sample of panelists who had completed the spring 2013 wave of ConsumerStyles, a marketing survey. The spring wave of ConsumerStyles was sent to a random sample of adults from KnowledgePanel®, an Internet panel consisting of approximately 50,000 people randomly recruited by probability-based sampling to be representative of the U.S. population. In the spring wave of ConsumerStyles, there were 6,717 completed surveys out of a sample of 11,188, yielding a response rate of 60.0%. Of the 4,420 panelists selected to receive the fall wave of ConsumerStyles, 3,502 completed the survey for a response rate of 79.2%. In order to examine adherence to the USPSTF recommendation, 788 of these respondents were excluded because they reported not visiting a primary care physician at least once in the past 12 months and 29 respondents were excluded because they did not answer the primary care visit question. Furthermore, 93 respondents were excluded who were missing alcohol consumption or behavioral intervention data. The final analytic sample thus included 2,592 respondents.

Measures

Respondents were asked to report whether or not over the past year *A healthcare professional asked me questions about my alcohol use* and *I filled out an intake form that included questions about many of my health behaviors, including my alcohol use*. Respondents who answered yes to either or both statements were categorized as having received alcohol screening. Binge drinking was defined as consuming five or more drinks on an occasion for men (four or more for women) in the past 30 days.[4,5] Respondents categorized their physicians as primary care providers based on a survey question asking them if they visited *primary care doctors (e.g., family practitioner, internist, OB/GYNs)* in the past 12 months. Obstetrician/gynecologists provide primary care to many women and almost half consider themselves primary care providers.[6]

Statistical Analysis

Data were weighted to match the U.S. Current Population Survey proportions for the following nine demographic characteristics: gender, age, household income, race/ethnicity, household size, education, census region, metro status, and whether or not they had Internet access prior to joining the panel. Weighted prevalence estimates and prevalence ratios were calculated with 95% CIs in 2013 and 2014 using SAS, version 9.3 and SAS-callable SUDAAN, version 11.0. Prevalence estimates were calculated for reproductive-age women because an association has been shown between alcohol consumption patterns prior to pregnancy and during pregnancy.[7,8] Associations were considered significant if $p<0.05$.

Results

By self-report, 24.7% of respondents who visited a primary care physician at least once in the past 12 months received alcohol screening in the past year (Table 1). Non-Hispanic black respondents had a lower prevalence of alcohol screening than non-Hispanic white respondents (16.2% vs 26.9%). Respondents with a college education or more had a higher prevalence of screening than respondents with a high school degree or less (28.1% vs 20.8%). There was no statistically significant difference in the prevalence of alcohol screening between reproductive-age women, aged 18–44 years, and women aged ≥45 years (Figure 1). The prevalence of binge drinking was 14.6%.

Discussion

Only about one in four respondents who visited their primary care provider in the past year reported receiving alcohol screening during that time period, despite the USPSTF recommendation.[2] The lack of screening for 75.3% of respondents indicates missed opportunities to identify patients misusing alcohol, provide brief behavioral counseling, and refer to treatment, when warranted.

This study corroborates earlier studies. A study using 1997 Behavioral Risk Factor Surveillance System data from ten states found that only 23% of binge drinkers who had a checkup in the past year reported that a health professional talked in the past year with the respondent about alcohol use.[9] A study using data from the 1998 Healthcare for Communities Survey found that among participants who visited a general medical provider in the past 12 months, 29% reported being asked about alcohol or drug use in the past 12 months.[10] A report using 2011 Behavioral Risk Factor Surveillance System data from 44 states and the District of Columbia found that only 7.6% of respondents reported having talked during the past year with a health professional about their alcohol use.[11]

This study found that adults with a college degree or more education were more likely to be screened than respondents with a high school education or less. Also, non-Hispanic whites were more likely to be screened than non-Hispanic blacks. Previous studies have found inconsistent patterns regarding the association between alcohol screening and education, and screening and race and ethnicity.[9–12] Further research is needed. Screening was not more likely among respondents who binge drank than those who did not, perhaps because binge

drinkers may be difficult to identify without alcohol screening.[13] Only an estimated 11% of binge drinkers are alcohol dependent.[14]

Limitations

The present study has several limitations. The data are based on self-report, which subjects them to recall and social desirability biases.[15] Respondents may under-report binge drinking owing to stigma.[15,16] Because the survey did not determine the actual screening questions that were posed to respondents by providers, it is unclear whether a validated tool was used, or if patients were screened for risky use, harmful use, abuse, or dependence. The fall wave of ConsumerStyles, which had a response rate of 79.2%, was drawn from respondents of the spring wave of ConsumerStyles, which had a response rate of 60.0%, raising the possibility of selection bias. Finally, if respondents misusing alcohol are less likely to respond to the survey, non-response bias may have occurred.

Conclusions

This study of adults who visited a primary care physician in the last year found that only about a quarter received alcohol screening despite the USPSTF recommendation to screen and provide brief behavioral counseling interventions for adults in primary care settings.[2] No subgroup reported a prevalence of screening as high as 30%. Future research should examine screening practices by physician report and, perhaps, electronic medical records. Screening is the initial step in alcohol screening and brief intervention and should become a routine part of clinical practice.

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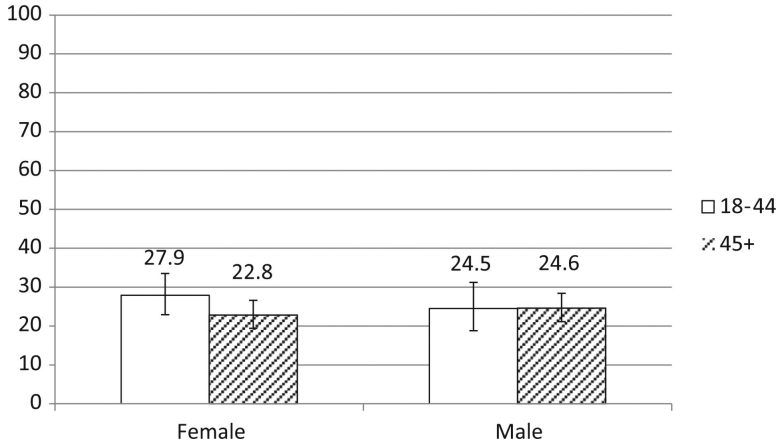

Figure 1.

Prevalence[a] of alcohol screening over the past year by age and sex.

[a]Weighted to be similar to the U.S. population in respect to gender, age, race/ethnicity, household size, household income, education, census region, metro status, and prior Internet access.

Table 1

Prevalence of Alcohol Screening Over the Past Year by Selected Characteristics

Characteristic	Unweighted number	Weighted prevalence[a], (95% CI)	Prevalence ratio, (95% CI)
Total	2,592	24.7 (22.6, 27.0)	
Gender			
Male	1,201	24.5 (21.4, 27.9)	0.99 (0.82, 1.18)
Female	1,391	24.9 (22.0, 28.1)	1.00
Age (years)			
18–29	267	26.5 (20.3, 33.8)	1.22 (0.89, 1.66)
30–44	467	26.6 (21.9, 31.9)	1.22 (0.94, 1.58)
45–65	1,151	24.5 (21.3, 28.0)	1.13 (0.90, 1.41)
≥66	707	21.8 (18.1, 25.9)	1.00
Race and ethnicity			
White, non-Hispanic	2,039	26.9 (24.5, 29.5)	1.00
Black, non-Hispanic	226	16.2 (10.8, 23.5)	0.60 (0.40, 0.90)
Hispanic	197	19.1 (13.1, 26.9)	0.71 (0.49, 1.03)
Other, non-Hispanic	130	27.0 (16.9, 40.2)	1.00 (0.64, 1.57)
Education			
High school degree or less	869	20.8 (17.4, 24.7)	1.00
Some college	832	26.3 (22.5, 30.6)	1.27 (1.00, 1.60)
College degree or more	891	28.1 (24.3, 32.3)	1.35 (1.08, 1.69)
Binge drinking[b]			
Yes	364	29.0 (23.3, 35.4)	1.21 (0.96, 1.52)
No	2,228	24.0 (21.7, 26.5)	1.00

[a] Weighted to be similar to the U.S. population in respect to gender, age, race/ethnicity, household size, household income, education, census region, metro status, and prior Internet access.

[b] Reported in the past 30 days having on at least one occasion 5 or more drinks for men or 4 or more drinks for women.