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Alcohol Use Among Arab Americans: What is the Prevalence?

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Abstract

Information is limited on alcohol use among Arab Americans. The purpose of this study was to describe and analyze the alcohol use pattern among Arab Americans by reviewing existing surveys using an acculturation model. Secondary data analysis. Nationally, English-speaking immigrant Arab Americans reported lower rates of lifetime alcohol use (50.8%), past month use (26.4%) and binge drinking (10%) than the White majority group. In a state survey, self-identified English-speaking Arab Americans were less likely to report past month use (45.6%) than the White majority group but reported similar rate of binge drinking (17.0%). Locally, lifetime drinking was reported by 46.2% of the immigrants but only 13.4% of refugees fleeing war. Few databases are available to estimate alcohol use pattern among Arab Americans; the limited data suggest a drinking pattern consistent with acculturation. However, the potential influence of other factors is unknown and needs to be investigated.

Keywords

Arab Americans; Alcohol; Refugees; Acculturation

Introduction

Alcohol abuse and misuse, a serious public health and medical problem [1], exists among every racial and ethnic groups examined to date. The efforts to reduce alcohol misuse have included both general and targeted approaches addressing minority groups through tailored prevention and treatment services [2, 3]. These targeted approaches are important even though some minority groups, notably Asian Americans and African Americans, have lower

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prevalence of alcohol abuse and any alcohol use than the majority White group [4]. The prevalence of alcohol and drug abuse may increase, however, among later generations of ethnic groups, especially among women [5, 6].

Developing targeted services for the minority group starts with basic information on alcohol use patterns. This information includes prevalence of lifetime use, past year use, past month use, misuse (e.g., heavy drinking, binge drinking), and abuse/dependence. Ideally, it would also include gender-specific estimates as women may be less likely to drink [4], and age-specific estimates as late adolescents and young adults have high prevalence of alcohol misuse [7]. Mean age of onset is also important as older age of onset is associated with fewer problems [8]. This information is currently available for major racial/ethnic groups through special [6, 9–11] and ongoing national [12, 13] and state level population-based surveys. Unfortunately, not all minorities are identified in these surveys. One overlooked and culturally-distinct ethnicity for whom alcohol use patterns is unknown is Arab Americans [14, 15].

Theoretical Framework

The theoretical framework for this analysis draws upon Berry's acculturation model [16]. In this approach, immigrants must resolve different behavioral expectations of their society of origin with that of their society of settlement. This framework has been extensively explored, including in a recent 13 country study of adolescents which contrasted familial obligations versus adolescents' rights [17]. When these behavioral expectation differences are greater and the barrier to acceptance in the society of settlement higher, the process may result in marginalization or segregation [18]. The high barriers include discrimination and stress which may result in alcohol abuse [19]. Younger age at immigration and increasing length of time since immigration may result in behaviors closer to that of the society of settlement [20].

Arab Americans

Arab Americans are immigrants and succeeding generations from the Arabic-speaking countries in the Middle East and Northern Africa. Immigrant Arab Americans originate from a region with extremely low alcohol consumption (e.g., Iraq has 0.2 l per adult per year [21]) and settled in a society with high alcohol consumption (8.6 l per adult per year), and thus they may experience conflicting behavioral expectations after arrival in the US. Also after arrival, they may experience language barriers and reduced social support, similar to other immigrant groups [22, 23]. Both immigrants and later generations of Arab Americans are currently enduring intense negative media images [24] and overt hostile political rhetoric [25], as well as discrimination [26–28], all of which constitute ongoing stress.

Although Arab Americans are not generally identified in surveys measuring alcohol use, they comprise a proportion of the general population (0.42%) very similar to that of Cubans (0.44%), Vietnamese (0.43%) and Japanese (0.41%) who are often identified in surveys [29]. Additionally, the proportion of the general population who reported an Arab country as ancestry increased 38% from the 1990 census [28]. In the 2000 census, Arab Americans were disproportionately young compared to the general population and therefore at high risk for alcohol misuse. Moreover, 40.9% of Arab Americans were immigrants [29]. The highest concentration of Arab Americans by state is Michigan and by metropolitan area, Detroit. Michigan is also home to the largest number of Chaldeans, a Christian ethnicity primarily from Iraq.

Supporting low prevalence of alcohol use among immigrants, Arab countries have both religious prohibition on and social discouragement of drinking, especially by women, as it

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can bring shame to the entire family [30]. Although the majority of Arab Americans are Christians [27] and do not have doctrinal prohibition on alcohol use, their alcohol use in Arab countries may be influenced by social pressure as has been shown in other cultures [31]. Furthermore, studies including American Muslims (although not exclusively Arab Americans) show some alcohol use: in a 2001 national college survey, 46.6% of US. Muslim college students reported past year drinking [32], and in a 2000 national general survey, 10 of 45 American Muslims reported past year drinking [33].

Supporting higher prevalence of use and misuse among immigrants who drink are factors pushing them to immigrate, most notably trauma from war [34] and rapid social change or disintegration in their society of origin [23]. Recalling trauma has been found to aggravate alcohol use among immigrant Arab-American treatment clients [35]. Thus refugees are a vulnerable subgroup for alcohol misuse among Arab Americans.

The purpose of this study was to describe and analyze the alcohol use pattern among Arab Americans by reviewing existing surveys for readily available estimates guided by the acculturation model with the prediction that (1) immigrants would have lower alcohol use than Arab Americans born in the US, (2) women would be less likely to drink than men, and (3) English-speaking immigrants would have higher alcohol use than non-English-speaking immigrants. We then contrasted the pattern among Arab Americans with the pattern among the majority White group. Lastly, we examined alcohol use among Arab-American refugees, a vulnerable subgroup. Contrasting alcohol use patterns between refugees fleeing war and immigrants is consistent with the acculturation model by addressing factors pushing the person to emigrate, even if a comparison majority White group is not included.

Methods

National, state and one Detroit-area surveys were reviewed. Ethical approval for the collection of the local survey and review of databases was obtained from Wayne State University Institutional Review Board.

National Surveys

Of the national ongoing population-based surveys, only one had the potential to estimate detailed alcohol use patterns for immigrant Arab Americans. Ongoing surveys offer the advantage of combing multiple years of responses and thus increase the precision of prevalence estimates. To our knowledge, no ongoing national survey has the potential to estimate alcohol use patterns for US-born Arab Americans.

NSDUH—The NSDUH is the primary annual source of information on the prevalence, patterns, and consequences of alcohol, tobacco, and illegal drug use and abuse in the US civilian noninstitutionalized population (age 12 and older). As such, the NSDUH collects detailed information on alcohol use patterns. The NSDUH has been administered annually since 1991. Due to the stigma and legal issues surrounding alcohol and drug use, confidentiality is highlighted in all written and oral communications, special lead-ins are included, and audio computer-assisted interviewing methods are used. English and Spanish versions of the questionnaire are used, but not other languages. A public access database which is smaller both in terms of variables and number of respondents than the restricted access database is available for analysis. The public access database, however, does not include country of birth or even region of birth. The Substance Abuse and Mental Health Services Administration (SAMHSA) which administers the NSDUH does not currently have a system to allow access to the restricted data but is actively, as of this date, examining ways to expand access. In the interim, they provide limited special summary reports. These reports can be run on data from 2002 and later. Prior to that time, the consent form strictly

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prohibited additional access. For this analysis, SAMHSA was provided with the list of 20 Arabic-speaking countries to define immigrant Arab Americans. The 2002–2008 surveys (n = 476,366) were analyzed using the appropriate sample weights and sampling strategy.

State Survey

BRFSS—The Behavioral Risk Factor Surveillance System (BRFSS), established in 1984 by the Centers for Disease Control and Prevention, is an ongoing state-based system of random-digit dial telephone-administered population-based health surveys that collects information on health risk behaviors, preventive health practices, and health care access primarily related to chronic disease and injury among adults 18 years or older. The data from core questions are pooled across states for national estimates. Three national summary variables are produced on alcohol use: drank in the past 30 days, heavy drinking in past 30 days and binge drinking in the past 30 days. States, however, can add questions to the survey for statewide planning. Unfortunately, the national data do not identify Arab Americans.

Michigan has participated in the BRFSS since 1987. In 2007, Michigan added the question: “Are you of Arab or Chaldean origin?” With this addition, Michigan data can be used to estimate alcohol use patterns for self-identified Arab Americans. Importantly, the survey is administered in English and the respondents would include both immigrant and later generations of Arab Americans. Together, this methodology suggests that the respondents may be more acculturated than those in the NSDUH. For this analysis, the 2007–2009 database (n = 25,738) was analyzed by an official at the state to protect confidentiality of the respondents using the appropriate sample weights and sampling strategy.

Detroit-Area Survey of Immigrant Arab Americans

Due to the high concentration of Arab Americans in the Detroit metropolitan area, a recent survey focused on Iraqi refugees (n = 75) and immigrants from other Arab countries (n = 52). Recruitment occurred at different community sites and the interviews were mostly conducted in Arabic. Current age (38.14 ± 13.01 for refugees versus 36.20 ± 12.41 for immigrants) and age at arrival (39.86 ± 12.60 for refugees versus 39.14 ± 12.02 for immigrants) agreed well between the two groups. The refugees were more likely than the immigrants, however, to be female (69.3 vs. 44.2%). One question (of two asked) from the AUDIT (Alcohol Use Disorders Identification Test) was analyzed: *How often do you have a drink containing alcohol?* No timeframe was included but the interviewer recorded if they responded that they ever drank. The AUDIT was developed with support from the World Health Organization as a quick way to screen for alcohol misuse [36].

Results

NSDUH

According to the 2002–08 NSDUH, the percentage of immigrant Arab Americans with alcohol use was 50.8% (lifetime) and 26.4% (past month) (Table 1). These rates are lower than that among non-Hispanic US-born Whites (the majority group): their alcohol use was 87.0% (lifetime) and 55.5% (past month). Not surprisingly, the rate of alcohol abuse or dependence among immigrant Arab Americans was lower (3.8%) than among the majority group (7.9%).

However, in contrast to the minimal gender difference in lifetime drinking prevalence among the majority group (89.1% for men and 85% for women), the lifetime drinking prevalence was 1.78 times higher among male immigrant Arab American (60.9%) than among females (34.2%). Mean age of onset among immigrant Arab Americans showed less

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gender effect: 19.0 years for men and 19.7 for women. For the majority group, the mean ages of onset were younger for both men (15.9 years) and women (17.9 years).

Binge drinking, defined in the NSDUH as five or more drinks on the same occasion in the past month, was lower among immigrant Arab Americans as a group (10%) compared to the majority group (24%) but these percentages do not account for the low prevalence of past month drinking among immigrant Arab Americans. When examined as a percentage of those who report drinking in the past month, the binge drinking prevalence approached that of the majority group (37.9 vs. 43.2%).

BRFSS

The 2007–2009 Michigan BRFSS reported 45.6% of Arab Americans adults drank in the past month compared to 59.4% of the majority non-Hispanic White group (Table 1). Heavy drinking in the past month among Arab Americans was 5.7%, almost equal to the 5.9% among the majority group. Among Arab Americans, binge drinking in the past month (defined in the BRFSS as five or more drinks per occasion for men and four or more drinks for women) was 17.0%, again almost equal to the 18.7% among the majority group. When restricted to past month drinkers, 38.2% of Arab Americans reported binge drinking compared to 31.6% among the majority group.

Detroit Area Study of Immigrant Arab Americans

In a Detroit-area survey of 75 Iraqi refugees and 52 non-Iraqi Arab immigrants, 13.4% of the refugees reported ever drinking compared to 46.2% of the immigrants. Moreover, there was a gender difference among the refugees (males: 27.8% and females: 8.2%) but not among the immigrants (males: 44.8% and females: 47.8%). Among the drinkers, the Iraqi refugees had been in the US for an average of 2.5 years compared to 5.6 years for the non-Iraqi Arab immigrants. (The nondrinkers had been in the country for 4.8 and 2.5 years, respectively.)

Discussion

These findings confirm that national data on alcohol use patterns among Arab Americans are limited. Without more information, prevention and treatment service development for this minority group is seriously impaired. Although the estimates differed, they confirmed that alcohol use and misuse occurs among Arab Americans, especially binge drinking among those who drink. This finding is consistent with the acculturation model [37] that the norms and availability of alcohol in the country of settlement support drinking. However, without information on religious affiliation and other factors potentially contributing to alcohol use (e.g., education, stress), it is unclear the importance of the country of settlement's norms to the prevalence of alcohol use and misuse among immigrant Arab Americans.

Consistent with the acculturation model, immigrant Arab Americans nationally reported lower alcohol use than the state survey that included all self-identified Arab Americans (presumably both immigrants and US-born Arab Americans). The self-identified Arab Americans pattern of drinking was almost identical to that of the White majority. The acculturation process was again evident in the very low level of alcohol use endorsed by Iraqi refugees in the Detroit-area survey. This survey was offered in Arabic and thereby able to include people who would have been excluded from the other surveys reviewed. Alcohol use, a stigmatized behavior, may be denied when asked in Arabic by a member of the community without special lead-ins or time to develop trust. However, the local non-Iraqi Arab immigrants reported lifetime alcohol use at almost the same level as the national estimates. The finding of fewer years in the US among drinkers compared to nondrinkers

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among the refugees is contrary to the expected acculturation process. Although it may be a chance finding, it is also possible that refugees as a group pushed to emigrate by trauma of war and social disintegration are more likely to drink initially when alcohol is widely available. Clearly, more focused studies with population-based sampling of refugees are needed.

Gender differences in alcohol use were expected due to the additional stigma placed on women drinking in Arab cultures e.g., see El-Islam for an over-view of stigma in Arab cultures [30]. The national database (NSDUH) with available gender-specific data supported that male immigrant Arab Americans were more likely to drink than female immigrant Arab Americans. The lack of gender difference in age of onset and the later mean age of first use for both men and women, although still under-aged [38], compared to the majority group suggest there may be cultural factors influencing age of onset of drinking among Arab Americans. To optimally tailor prevention services, more information is needed.

An additional ongoing population-based national survey is the National Household Interview Study (NHIS) The NHIS collects data on a range of health topics through personal household interviews, including country of birth, but does not have detailed alcohol questions. In the public access database, Immigrant Arab Americans are grouped under “Middle East”—along with people born in Iran, Turkey, Israel and other countries in the Eastern Mediterranean region or under “African” for Arab Americans born in Egypt and other Northern African countries. Although use of this regional code has been advocated for examining Arab American's health [39], its accuracy is unknown but should be investigated.

Limitations

The differences observed across the databases may reflect other methodological differences besides inclusion criteria, geographic coverage, and sampling strategy. The questions and mode of administration differed, too. Using an in-home computer-assisted interview, the population-based NSDUH defines drinking as more than a sip; the telephone-administered population-based BRFSS defines drinking as having consumed at least one drink of any alcoholic beverage such as beer, wine, a malt beverage or liquor; and the in-person interview convenience sample Detroit-area survey used a question from the AUDIT without a specific time period.

New Contribution to the Literature

Alcohol misuse extracts a substantial societal and personal cost [1]. As more information on alcohol use patterns are documented for different racial and ethnic groups [40] and then translated into targeted services, we need to ensure that no minority group is left out. This article, to our knowledge, is the first to summarize the limited data on alcohol use patterns among Arab Americans, a culturally-distinct minority group. The results highlight that alcohol use and misuse occurs among Arab Americans and that misuse may be higher among self-reported Arab Americans as opposed to Arab Americans defined by country of birth. From a theoretical perspective, the existing information is consistent with an acculturation process. From a public health perspective, the high level of binge drinking needs to be examined in more detail. This information can then be translated into targeted prevention and treatment services.

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Table 1

Alcohol use patterns among Arab Americans from national and state level surveys

	Arab Americans		Majority group	
	%	**95% confidence intervals**	**%**	**95% confidence intervals**
National survey on drug use (NSDUH) 2002–2008				
Lifetime alcohol use	50.8	45.3–56.3	87.0	86.8–87.2
Males	60.9	53.9–67.9	89.1	88.9–89.3
Females	34.2	25.9–42.5	85.0	84.7–85.3
Past year alcohol use	35.0	29.5–40.5	70.0	69.7–70.3
Past month alcohol use	26.4	21.4–31.4	55.5	55.1–55.9
Binge alcohol use in past month	10.0	6.9–13.1	24.0	23.7–24.3
Heavy alcohol use in past month	3.3	1.6–4.9	7.8	7.6–8.0
Alcohol abuse or dependence	3.8	1.8–5.8	7.9	7.7–8.1
Michigan behavioral risk factor survey (BRFSS) 2007–2009				
Past month alcohol use	45.6	37.3–54.1	59.4	58.5–60.3
Binge alcohol use in past month	17.0	11.2–24.8	18.7	17.9–19.5
Heavy alcohol use in past month	5.7	2.4–13.2	5.9	5.5–6.4

Arab Americans were defined in the NSDUH by reported birth in one of the 20 Arabic-speaking countries and in the BRFSS as self-reported being of Arab or Chaldean origin

Majority group was defined in the NSDUH by reported birth in the US, White race and not of Hispanic ethnicity and in the BRFSS as self-reported White race and not of Hispanic ethnicity. *Confidence intervals* were provided by the state analyst for the BRFSS and calculated from provided standard errors for the NSDUH

All *alcohol use comparisons* by group in the NSDUH are significant at $P < .0001$. Only past month alcohol use comparison by group in the BRFSS is significant ($P < .01$)