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## Ethnic Identity in Arab Americans: Gender, Religious Upbringing, and Age Differences

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### Abstract

Arab Americans constitute a diverse, sizeable ethnic minority in the United States. However, limited research has examined the content of Arab American ethnic identity and whether this ethnic identity differs by demographic factors. In the present study, we developed measures of Arab American ethnic identity and cultural practice, and assessed differences in those variables by gender, religious affiliation (Muslim, Christian), and age. Arab American adults recruited online from Amazon Mechanical Turk ( $N = 391$ ) completed an adaptation of the Multidimensional Inventory of Black Identity and a measure of cultural practice that was created for this study based on pre-existing scales. Items loaded onto dimensions of identity (ethnic centrality, private regard, public regard), and subscales showed invariance across gender and religious upbringing. When examining group differences in ethnic identity, we found that attitudes regarding being Arab American varied by gender, such that Arab American women reported higher private regard and lower public regard than men. In turn, participants raised in Muslim households reported higher ethnic centrality and cultural practice than those raised in Christian households, potentially related to Muslims' status as a religious minority in the United States. Finally, young adults were lower in centrality and private regard than older adults, suggesting either that ethnic identity may develop into adulthood or that young adults' ethnic identity may be influenced by growing up in American society post-9/11. Taken together, findings illustrate the heterogeneity in the ethnic identity of Arab Americans; further research is needed to understand individual differences in Arab Americans' ethnic identity.

### Keywords

Arab American; ethnic identity; cultural practice; gender; religion; measurement

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According to the Arab American Institute (2018), there are over 3.5 million Arab Americans, and yet this group is generally understudied with regard to their ethnic identity. Ethnic identity is an important component of individuals' sense of self and is associated with well-being in many ethnic-racial minority groups (e.g., Smith & Silva, 2011), including Arab Americans (e.g., Ahmed et al., 2011; Sheldon et al., 2015). Many individuals identify as Middle Eastern or North African (MENA) or primarily identify with their national identity or religion, and people can have several overlapping but distinct social identities. Prior studies have assessed MENA identity (Resnicow et al., 2021), although MENA is a slightly more general term than Arab American that includes the majority of traditionally Arab countries as well as neighboring non-Arab countries, specifically Armenia, Iran, and Turkey. We focused on Arab Americans because of shared cultural values (e.g., religion, family, hospitality) and traditions unique to this group (Harb, 2016), in line with prior research that has specifically asked Arab Americans about their cultural experiences (e.g., Abboud et al., 2015; Kumar et al., 2014). This group also shares experiences of discrimination because of negative portrayal in Western news and media (Awad et al., 2017).

Although shared cultural experiences and the discrimination experienced by Arab Americans since 9/11 have been well documented, little is known regarding heterogeneity in the ethnic identity of Arab Americans, such as variability associated with religion and gender (Hakim-Larson & Menna, 2015). Research has assessed individuals' religious identities, and general scales have been developed regarding individuals' Arab American identity and MENA identity (Barry et al., 2000; Resnicow et al., 2021). However, few scales have been specifically designed to assess the content of Arab American identity among men and women. Therefore, goals of the present study were to develop measures of ethnic identity and cultural practice for use with Arab Americans. Specifically, aims of the present study were threefold: 1) to develop measures of ethnic identity and cultural practice for use in Arab American samples, 2) to test the psychometric properties of the measures, and 3) to assess gender, religious upbringing, and age differences in these identity constructs.

## Ethnic Identity Measurement

Ethnic identity scales vary with respect to whether they measure the *content* of identity or identity *processes* (Schwartz et al., 2014; Umaña-Taylor et al., 2014). Identity process models show how identity develops across time, whereas identity content refers to the dimensions that characterize a specific ethnic identity (e.g., McLean et al., 2016). Thus, identity process models and measures usually include components such as exploration (to what extent the individual has learned about the group) and commitment (Umaña-Taylor et al., 2014). In contrast, the content of identity might include dimensions such as attitudes regarding being Arab American and perceptions of others' attitudes toward Arab Americans. Identity content has received relatively less attention than process across ethnic groups (McLean et al., 2016). The Male Arab Ethnic Identity Measure (MAEIM; Barry et al., 2000), which is among the few scales specifically developed to measure Arab identity and cultural practices, is a process measure of identity. Because this measure was developed exclusively for Arab male immigrants, it precludes assessment of gender differences and of identity content (Barry et al., 2000). Another recently developed scale is the MENA Identity Measure (MENA-IM; Resnicow et al., 2021), which includes subscales of cultural

affiliation, media use, and multicultural affiliation and has been used among MENA rather than Arab American individuals.

The Multidimensional Inventory of Black Identity (MIBI; Sellers et al., 1997) was developed to measure identity content among African Americans and has been widely used not only with African American adults and youth but also with other racial/ethnic groups (e.g., Hoffman et al., 2021; Schwartz et al., 2014). This measure includes three scales: centrality (the importance of race/ethnicity for one's overall identity); regard (feelings of positivity and negativity towards one's race/ethnicity); and ideology (how one believes members of their race/ethnicity should act). The MIBI measures two forms of regard: private regard, the positivity/negativity one feels toward being a member of their group, and public regard, the extent to which individuals feel that others view their group positively or negatively. Whereas the MIBI ideology scale was designed specifically for the experiences of Black Americans, centrality, private regard, and public regard are considered more generally applicable and have been used more widely with other ethnic-racial groups, including Asian Americans, Latinos, and American Indians (Hoffman et al., 2021; Schwartz et al., 2014).

Ethnic centrality, private regard, and public regard may be useful components for assessing ethnic identity content among Arab Americans. Identification with other Arab Americans (similar to the MIBI construct of centrality) has been linked with reduced distress associated with experiences of discrimination in a sample of Arab Americans (Abdulrahim et al., 2012). It may be particularly helpful to disaggregate public and private regard for Arab Americans. Due to negative portrayals of Muslims in media and derisive political rhetoric (Khan et al., 2019; Melhem & Punyanunt-Carter, 2019), the negative sentiments toward Muslims in the U.S. following 9/11 (Awad et al., 2019; Selod, 2015), and conflation of "Muslim" with "Arab" in U.S. media and culture (Abdel-Salam et al., 2019; Zopf, 2018), Arab Americans may feel that they live in a society where their group is viewed negatively. Nonetheless, because of positive sentiments regarding their own Arab identity, Arab Americans' perceptions of how their group is viewed by society (i.e., public regard) may greatly differ from their own personal feelings regarding their group (i.e., private regard). Indeed, higher ethnic centrality tends to be more related to having positive feelings regarding one's ethnic group than to beliefs about how this group is viewed in society (e.g., French et al., 2013; Hoffman et al., 2021; Thomas et al., 2022; Willis & Neblett, 2020). Similar associations may emerge in Arab Americans; Arab adolescents reported being frustrated that negative representations in media promote stereotypes and cause others to view Arabs more negatively, which may cause them to feel more negative public regard irrespective of their ethnic centrality (Kumar et al., 2014). However, the MIBI has not been previously adapted for and used with Arab Americans, and as a result it remains unclear how Arab Americans view their own ethnic group and how they perceive other people view them.

## Heterogeneity in Arab American Ethnic Identity

Other social identities, such as gender and religion, may influence the experiences of Arab Americans and the content of their ethnic identity. Increasingly, identity researchers have argued that it is important to study the intersection of key social identities rather than

a single identity in isolation (e.g., Settles & Buchanan, 2014). Among Arab Americans, ethnic identity is likely interwoven with religious, gender, racial, and national identities. For instance, although Arab Americans are considered racially White according to the United States (U.S.) Office of Management and Budget, many Arab Americans—especially Muslims—do not self-identify as White (Abdulrahim et al., 2012; Awad et al., 2021; Maghbouleh et al., 2022). Identity is further complicated by political and religious tensions in the Arab world, which prompt many Arab Americans to identify strongly with their national and religious identities.

The American sociopolitical context of the last two decades has further shaped how people identify with and express being Arab American. Although previously considered largely “invisible,” following 9/11 Arab Americans became “visible” in news and media and experienced a great increase in discrimination (Sirin et al., 2021). The challenges associated with such discrimination might lead Arab Americans to show increased solidarity with other Arab Americans because of shared experiences of injustice (Read, 2008). Indeed, Arab American boys expressed feeling unity with Arabs of other national origins because of shared experiences, including anti-Arab discrimination and stereotyping (Kumar et al., 2014). Growing up in this climate with visible anti-Arab sentiment may also prompt younger Arab American adults to identify with their ethnicity less strongly or less positively than older Arab Americans. In the current study, we aimed to test whether aspects of ethnic identity content among Arab Americans vary by gender, religious upbringing, and age.

## Gender Differences in Ethnic Identity Among Arab Americans

Gender differences may emerge in Arab American ethnic identity for several reasons. In the Arab world, cultural values and expectations place a larger responsibility on Arab women than men. Women are responsible for following cultural traditions and passing the culture to their families, which may cause them to identify more strongly with the culture than men (Aboulhassan & Brumley, 2019). Many Arab American women prioritize preserving Arab culture, despite perceived conflict between cultural traditions and American gender norms (Aboulhassan & Brumley, 2019). Further, Arab culture often involves more rigid expectations regarding women’s responsibilities to the family (Abdel-Salam et al., 2019). Whereas men are more often in the workforce, Arab American women, especially immigrants, are often responsible for duties in the home and have fewer opportunities to assimilate into American culture (Amer, 2014). Indeed, in focus groups Arab adolescents reported different cultural expectations for girls and boys (Kumar et al., 2014). Because of strict gender roles in Arab culture, Arab American women must navigate how their own cultural values may appear at odds with American culture while preserving that culture within the family (Abdel-Salam et al., 2019; Stephan & Aprahamian, 2015). This involvement in Arab culture may promote gender differences in ethnic identity.

Although most studies have found no gender differences in ethnic-racial identity among other ethnic-racial groups (Umaña-Taylor et al., 2014), evidence of gender differences in Arab American identity and identity-related variables (e.g., cultural practice) is inconsistent. For example, Arab American adolescent girls more closely identified with their ethnic identity than boys (Ahmed et al., 2011), and Arab American women reported greater ethnic

cultural practice and intrinsic religiosity than Arab American men (Amer & Hovey, 2007). However, other studies of Arab Americans have not found gender differences in attitudes toward Arab and U.S. culture (Semaan, 2015) or ethnic identity (Awad, 2010). Likewise, no gender differences emerged in cultural affiliation among MENA individuals (Resnicow et al., 2021). Discrepant results may have emerged because many studies were not designed to examine gender differences in ethnic identity and had relatively few male participants. Some studies also did not use established scales, and others compared strength of Arab identity to American identity. Moreover, men and women may differ with respect to specific facets of identity that were not measured in those studies (e.g., aspects of identity content versus process). Finally, because gender attitudes and roles continue to change, additional research is warranted regarding differences in ethnic identity content between Arab American men and women.

### **Religion Differences in Ethnic Identity among Christian and Muslim Arab Americans**

Because Christianity is the majority religion in the U.S., differential treatment of Muslims and Christians might lead to religious-group differences in ethnic identity. Although most Arabs worldwide practice Islam, Christians left the Middle East in the earlier waves of migration to the U.S. (Awad et al., 2017). Consequently, Christian Arab Americans outnumber Muslim Arab Americans, and people who migrated earlier—of whom Christians are more numerous—are more established than those who migrated later (Awad et al., 2017; Read, 2008). Muslims experience additional challenges as a stigmatized religious minority in the U.S. (Dahab & Omori, 2019; Read, 2008). Arab Americans who are Christian report less discrimination than those who are Muslim (Abdulrahim et al., 2012; Semaan, 2015), and immersion in American culture is associated with more frequent experiences of discrimination among Muslims but fewer experiences of discrimination among Christians (Awad, 2010). These differences suggest that Christians and Muslims navigate American culture differently, which may in turn prompt Muslim Arabs to report more negative public regard than Christian Arabs.

Several studies have suggested that Muslims identify more strongly with their Arab heritage than Christians (e.g., Ikizler & Szymanski, 2018). Christian Arabs may report lower levels of ethnic identity because Arab culture is generally tied to Islam. As the religious minority in the Middle East, Christian Arabs may view religion as a more important aspect of their identity than their Arab ethnic identity. Furthermore, the racialization of Islam in U.S. society has caused many non-Arabs to conflate being Arab American with being Muslim (Abdel-Salam et al., 2019; Sirin et al., 2021; Zopf, 2018). This misconception may further prompt Christian Arabs to identify more strongly with their religion rather than their Arab ethnic identity. As a result, Muslim Arab Americans may be higher in ethnic centrality—the importance of ethnicity to their identity—than Christian Arab Americans, although this hypothesis has not been previously tested.

## Age Differences in Ethnic Identity Among Arab Americans

Age differences in ethnic identity might occur because of developmental change or because of birth cohort (i.e., historical) differences. Young adulthood is a critical time for the development of ethnic identity and might be especially formative for Arab American identity (Umaña-Taylor et al., 2014). Young adults may experience conflicting values between their ethnic and American identities as they explore U.S. society and the workplace beyond their home communities (Wrobel & Paterson, 2014). Consequently, Arab Americans may develop more positive feelings about their ethnic group later in adulthood. However, to our knowledge, no study has assessed age differences in Arab American ethnic identity during adulthood.

Generational or age differences in identity might be due to developmental stage or to cohort differences. Arab and Muslim adolescents experienced unique challenges in the aftermath of 9/11 (e.g., Khouri, 2016). The 9/11 attacks were followed by a dramatic rise in hate crimes against Muslims and Arab Americans, as well as negative media exposure and stereotyping (Disha et al., 2011; Ibish, 2003). Experiencing more discrimination following 9/11 has been associated with stronger ethnic identity (Hakim et al., 2018). However, growing up with the stigma surrounding Arab Americans post-9/11 may result in lower ethnic centrality, more negative private and public regard, and less engagement in cultural practices.

### Present Study

In the present study, we aimed to measure ethnic identity content in Arab Americans and determine whether the ethnic identity of Arab Americans differs across gender, religious upbringing, and age groups. Research has assessed individuals' religious identities, and general scales have been developed regarding individuals' identity as an Arab American or MENA individual. However, few scales have been specifically designed to assess the content of Arab American identity among men and women. Therefore, the present study aimed to adapt items from the centrality, private regard, and public regard subscales of the MIBI for use with Arab American adults. A measure of cultural practice was also developed specifically for Arab Americans based on existing cultural practice and acculturation scales. Importantly, because of the assessment of cultural practices, the present study assessed Arab Americans rather than MENA people more generally; language is a major part of cultural practice that is generally shared among people from the Arab World and is not shared by people from other MENA countries (i.e., Iran, Israel) and surrounding nations (i.e., Afghanistan, Pakistan).

Adults identifying as Arab American completed the measures online, and group differences were assessed. Because aspects of ethnic identity can intersect with other domains of identity (Settles & Buchanan, 2014), we examined differences in Arab Americans' ethnic identity by gender, religious upbringing, and age. Women and Muslims were hypothesized to report stronger connections to their Arab identity and to report greater cultural practice than men and Christians, respectively, because women tend to be stakeholders of culture, and Islamic practices tend to be more strongly tied to Arab culture. Because of increased stigma in recent years regarding Arab culture, older adults were hypothesized to report

higher ethnic centrality and regard than younger adults. Additionally, differences in ethnic identity related to income, education, and immigrant status were explored.

## Method

### Participants

For this study, 489 Arab American adults were recruited in 2017 from Amazon Mechanical Turk (mTurk), an online platform that provides diverse recruitment and reliable data (Buhrmester et al., 2011). Of these participants, 395 successfully completed two data quality checks. Prior studies have indicated that many people of Arab or MENA descent do not identify as Arab American, potentially because there are countries in the Middle East that do not have Arabic as the primary language (e.g., Israel, Iran) and because some ethnic groups and individuals prefer to identify with their ethnic or national identity rather than the terms Arab or Arab American (Awad et al., 2021). Therefore, to verify validity of the sample, at the start of the survey participants rated whether “Arab American” defined their identity on a scale from 1 (*Not at all*) to 5 (*Very much*). Four participants reported that they did not identify at all with being Arab American and were removed, leaving 391 participants included in primary analyses. Participants were at least 18 years of age ( $M_{age} = 29.1$  years,  $SD = 7.9$ ; range = 18–66), had registered their mTurk accounts in the U.S., and self-identified as Arab American. Participant characteristics are reported in Table 1.

Because household religion influences parental socialization (Bebiroglu et al., 2015), participants were recruited based on the predominant religion in their childhood home rather than their present religion. Quotas were used to obtain approximately equal numbers of men and women raised in Christian and Muslim households. The final sample comprised 87 men and 83 women raised in Christian households (22.3% and 21.2% of the total sample, respectively), and 100 men and 121 women raised in Islamic households (25.6% and 31.0%, respectively). Most participants raised within Christian or Islamic households still identified with that religion as adults (71.8% and 84.3%, respectively).

ANOVAs showed that gender and household religion groups did not differ on age or income, all  $ps > .10$ . However, Muslim men ( $M = 4.06$ ,  $SD = 1.24$ ) were more educated than both Christian men ( $M = 3.60$ ,  $SD = 0.94$ ;  $q[321] = 3.78$ ,  $p = .039$ ) and Muslim women ( $M = 3.68$ ,  $SD = 1.26$ ;  $q[321] = 3.69$ ,  $p = .048$ ),  $F(1, 319) = 7.53$ ,  $p = .006$ ,  $\eta^2 = 0.023$ . Although all 391 participants completed the ethnic identity and cultural practice measures, 19 participants reported being raised in households that were both Muslim and Christian. These participants could not be included in models testing differences by religion. Therefore, 391 participants were included in invariance tests of measures by gender, and 372 participants were included in invariance tests of measures by religious upbringing and in models testing differences in ethnic identity constructs by religious upbringing and gender. Only 340 participants answered the additional demographic questions at the end of the survey (i.e., age, education, income, nation of origin and birth, and years in the U.S.). As a result, tests of gender and religious differences in ethnic identity included 391 participants, whereas tests of differences by age, income, education, and immigrant status included 340 participants. Participants who did not complete the full demographics section did not differ



from participants with complete data with respect to gender, religion, ethnic centrality, private regard, public regard, or cultural practice ( $ps > .10$ ).

Participants were eligible if they personally identified as being Arab or Arab American. At the end of the survey, participants noted the countries with which they identified (Table 1). A minority of participants identified with adjacent countries (i.e., Iran, Pakistan) that are not considered part of the Arab world. People who identify as Arab American could also have ties to multiple countries due to immigration or diverse cultures within the family, so we included all 391 participants who identified as Arab American in primary analyses. We then conducted supplemental analyses omitting the subsample who reported identifying with a country that is not in the Arab world or did not complete this item. Most findings were consistent across primary analyses and this subsample of 233 participants, and results of supplemental analyses are briefly described at the end of the Results section and fully presented in supplemental information.

## Procedure

Participants completed a survey on mTurk. Only individuals who had registered their account in the U.S. were able to view the survey. Participants provided electronic consent, as approved by the University of North Carolina at Chapel Hill Institutional Review Board. Then, participants indicated their ethnicity from given choices, which included Caucasian, Arab/Middle Eastern, Persian, and various other options. Participants who identified as Arab/Middle Eastern were allowed to continue with the survey, and then completed the separate item regarding whether they specifically identify with being Arab American. Arab Americans are considered racially White according to the U.S. Office of Management and Budget, and many self-identify as White (e.g., Abdulrahim et al., 2012), so participants who identified as Caucasian were asked whether they identified as European American or either Arab or Middle Eastern. Participants were allowed to continue with the survey if they chose Arab, Middle Eastern, or North African and then reported that they identified specifically with being Arab or Arab American ( $n = 11$ , 2.9%). Although all participants are included in primary analyses, we repeated the analyses excluding these 11 participants and found an identical pattern of results, as presented in supplemental information.

Participants then reported their gender and the primary religion(s) in their childhood homes. After a target group (i.e., Christian men, Muslim men, Christian women, Muslim women) had reached the quota of 125 people, all subsequent members of that group were redirected to the end of the survey. Then participants completed the item regarding the degree to which the label Arab American defined their identity in order to verify validity of the sample. Eligibility questions are provided in the supplement.

Items assessing ethnic centrality, private regard, and public regard were interspersed within the survey, followed by items assessing cultural practice. After completing primary measures, participants reported their age, educational attainment, household income, nation of origin and birth, and years in the U.S. Participants received \$0.50 for completing this 20-minute survey, in line with common hourly rates for mTurk workers (Hara et al., 2018; Savage et al., 2020). To ensure valid responses, participants completed two data quality checks. At the end of the first page, participants reported whether they had carefully

read and honestly answered items on that page. Inclusion of this honesty check increases reliability on mTurk surveys (Rouse, 2015). Second, participants were asked to select “somewhat agree” in response to one item as an attention check. Of the 489 Arab American participants who began the survey, 94 failed a data quality check. As stated above, another four participants were ineligible because they reported that they did not identify at all with being Arab American, leaving a sample of 391 participants.

## Measures

**MIBI Properties and Adaptation**—For the current study, all items from the MIBI were modified so that “Arab” was substituted for “Black,” and participants were asked to rate agreement with each item on a 7-point scale (1 = *strongly disagree* to 7 = *strongly agree*). Items were included from the original centrality, private regard, and public regard subscales (Sellers et al., 1997). When the full MIBI was initially validated, centrality was assessed as a single unidimensional factor, with .30 as a factor loading cutoff for retaining items (Sellers et al., 1997). Due to the large number of items and factors, private regard and public regard items were tested together and loaded onto the two distinct factors based on this .30 cutoff. A recent study conducted a factor analysis on data from the short-form of these three scales administered to Black participants and found that a single factor provided poor fit for the data whereas the three-factor model showed appropriate fit with significant loadings for all items (Hope et al., 2020). Likewise, items have loaded as anticipated onto factors among Asian American and Black adults (Sellers et al., 2003; Yip et al., 2022b).

Prior administrations of this scale have generally found acceptable inter-item reliability values ranging from .60-.85 across studies (e.g., Douglass & Umaña-Taylor, 2017; Thomas et al., 2022; Volpe et al., 2019; Yip et al., 2022b), and that distributions of centrality, private regard, and public regard scores are generally neither substantially skewed nor kurtotic (Worrell et al., 2021). As evidence of criterion validity, many studies have found centrality, private regard, and public regard to be related to better physical and mental health (e.g., lower depressive and anxiety symptoms), as well as buffering individuals from the negative consequences of discrimination (e.g., Chee et al., 2019; French et al., 2013; Rivas-Drake, 2012; Thomas et al., 2022; Willis & Neblett, 2020; Yip et al., 2022a).

To reduce participant burden, one item was omitted from each MIBI subscale. Selection of items for omission was guided by face validity for an Arab American sample. Scales have been administered to other ethnic groups with slight modifications. For instance, the centrality measure was administered to Native Americans with two items removed due to low reliability and to Latina women with two items removed due to translational issues (Chee et al., 2019; Derlan et al., 2018). Researchers have also removed reverse-coded items and items with low loadings (Yip et al., 2022a). All items used in the current study can be found in the Appendix.

**Ethnic Centrality**—Centrality measures the extent to which ethnicity is part of the individual’s self-concept (Sellers et al., 1997). The centrality subscale had seven items (e.g., “Being Arab is an accurate reflection of who I am”), including one negatively scored item.

The negatively-worded item was reverse-coded, and items were averaged with higher scores representing higher centrality. Items showed good inter-item reliability ( $\alpha = .75$ ).

**Private Regard**—Private regard measures individuals' positivity or negativity towards their ethnic-racial group and their membership in that group (Sellers et al., 1997). The private regard subscale had six items (e.g., "I feel good about Arabs in general"), including one negatively scored item. The negatively-worded item was reverse-coded, and item scores were averaged with higher scores representing more positive private regard. All items showed good inter-item reliability ( $\alpha = .88$ ).

**Public Regard**—Public regard measures individuals' perceptions of the attitudes of others towards their ethnic-racial group (Sellers et al., 1997). The public regard subscale had five items (e.g., "American society views Arabs in a positive manner"). Item scores were averaged with higher scores representing more positive public regard and showed good inter-item reliability ( $\alpha = .84$ ).

**Cultural Practice**—Participants rated eight items regarding their Arab cultural practice (e.g., speaking Arabic, watching Middle Eastern programming). To capture cultural practices relevant to this group, we adapted items in existing scales of cultural practice and acculturation and created additional items for assessment in Arab Americans. We first adapted items from the MAEIM (i.e., eating Mediterranean food, reading and writing in Arabic, speaking Arabic), as a scale of Arab American acculturation, specifically (Barry et al., 2000). We included an item regarding engaging with other Arab Americans because both the Multigroup Ethnic Identity Measure (MEIM) and the Vancouver Acculturation Scale include items regarding engaging with same-ethnic peers (Phinney, 1992; Ryder et al., 2000). The Vancouver Acculturation Scale also includes items regarding enjoying entertainment from one's heritage culture, so we included items regarding movies and literature. We considered following news from the Middle East and one's home country particularly important and included this as an item, in line with the Stephenson Multigroup Acculturation Scale (Stephenson, 2000). Finally, because of the importance of clothing for religion, we also included an item regarding traditional clothing. Participants rated agreement with each item (1 = *strongly disagree*; 7 = *strongly agree*). These items showed good inter-item reliability ( $\alpha = .75$ ), and items were averaged such that higher scores represented greater Arab cultural practice.

**Demographic Variables**—At the beginning of the survey, participants reported their gender (male; female; other/prefer not to specify). Participants then selected one race/ethnicity from various options. Participants selected the dominant religion(s) in their childhood households. Individuals reporting Christian Scientist, Orthodox, Seventh-Day Adventist, Mormon, Roman Catholic, Protestant, or other forms of Christianity were categorized as "Christian." Those reporting Islam were categorized as "Muslim."

At the end of the survey, participants reported their age, educational attainment, and household income. Age was measured with an open-ended question. Participants reported their educational attainment on a 7-point scale (1 = *Did not complete high school*; 2 = *High school or GED*; 3 = *Associate degree*; 4 = *Bachelor's degree*; 5 = *Master's degree*;

6 = *Professional degree*; 7 = *Doctoral degree*). Participants reported annual pre-tax income on a 7-point scale (1 = *Less than \$25,000*; 2 = *\$25,000-\$34,999*; 3 = *\$35,000-\$49,999*; 4 = *\$50,000-\$74,999*; 5 = *\$75,000-\$99,999*; 6 = *100,000-\$149,999*; 7 = *\$150,000+*).

## Analytic Strategy

**Scale Validation**—The psychometric properties of the centrality, private regard, public regard, and cultural practice measures were examined by using an oblique exploratory factor analysis (EFA) to ensure appropriate factor loadings. Oblique EFA was used because constructs were predicted to be interrelated, and this approach has been used to develop other measures of racial identity (e.g., Yoo et al., 2021). Because of our interest in examining differences in each of these measures by gender and religious upbringing, we used structural equation modeling to test for configural, metric, and scalar invariance by gender and religious upbringing in line with other studies (e.g., Resnicow et al., 2021). Items were systematically removed to ensure invariance. By establishing metric and scalar invariance, mean differences in centrality, private regard, and public regard could be tested and meaningfully interpreted (Schwartz et al., 2014).

**Demographic Differences**—We then examined descriptive statistics and tested group differences by gender and religious upbringing using  $2 \times 2$  ANOVAs. Nineteen participants (14 women, 5 men) reported being raised in households practicing both Islam and Christianity and were excluded, leaving 376 participants in analyses of gender and household religion. Three approximately equal age groups were defined: under 25 ( $n = 100$ ; 29.4%), 25–30 ( $n = 125$ ; 36.8%), and over 30 ( $n = 115$ ; 33.8%), and ANOVAs assessed differences in ethnic identity and cultural practice by age. Because of missing data, age group comparisons were conducted using 340 participants.

Finally, associations between ethnic identity and U.S. nativity, income, and education were tested. Because there were religious differences in nativity,  $2(\text{Household Religion}) \times 2(\text{U.S. Nativity})$  ANOVAs were used to assess differences in ethnic identity and cultural practice by immigrant status, controlling for religion. This analysis again excluded the 19 participants who identified as both Christian and Muslim. Correlations tested relations between ethnic identity measures and participants' income and educational attainment.

## Results

### Psychometric Properties of the Ethnic Identity and Cultural Practice Measures

Because the MIBI had not been used previously with Arab American adults, scale validity was assessed in the full sample of 391 participants. An oblique EFA conducted on ethnic centrality, private regard, and public regard items yielded three factors with eigenvalues greater than 1, and the items loaded onto three constructs corresponding to those from the MIBI: Centrality = 5.11, Private Regard = 5.79, and Public Regard = 2.78. All items loaded onto the constructs as anticipated with factor loadings greater than .49, which is congruent with guidelines for EFA (Costello & Osborne, 2005; see Table 2).

Next, structural equation modeling was used to assess configural, metric, and scalar invariance across gender and religious upbringing for each measure (Tables S1–S4).

Centrality, public regard, and cultural practice showed configural invariance across most fit indices. Private regard showed moderate fit after correlating errors between two items based on empirically derived modification indices. Then, metric and scalar invariance were tested. Private regard and public regard measures showed metric and scalar invariance, whereas the original centrality and cultural practice measures failed invariance tests. Therefore, items were systematically excluded until measures were invariant across gender and religious groups. Three centrality items were removed and four cultural practice items were removed, leaving four items in each measure (see Appendix). These adjusted measures showed good inter-item reliability ( $\alpha_s = .74$ ). Bivariate correlations showed that centrality was positively correlated with private regard, and cultural practice was positively correlated with centrality, private regard, and public regard (Table 3).

### Gender and Household Religion Differences in Ethnic Identity and Cultural Practice

Means and standard deviations of ethnic identity and cultural practice measures are reported in Table 3. On average, participants' reports were above the scale midpoint for ethnic centrality and private regard, suggesting that they tended to agree that being Arab or Arab American was an important part of their identity and that they viewed other Arabs and their Arab identity positively. The mean public regard score was between "neutral" and "slightly disagree," suggesting that they perceived that Arabs are viewed neutrally or slightly negatively by others in the U.S. On average participants reported moderate engagement in cultural practices.

Separate ANOVAs were used to test household religion and gender differences in each aspect of ethnic identity ( $n = 372$ ). The  $2(\text{Gender}) \times 2(\text{Household Religion})$  ANOVA on ethnic centrality yielded a significant main effect of Household Religion,  $F(1, 368) = 11.25$ ,  $p = .001$ ,  $\eta^2 = 0.030$ . Muslims ( $M = 4.91$ ,  $SD = 1.25$ ) reported higher centrality than Christians ( $M = 4.47$ ,  $SD = 1.22$ ). Neither the main effect of Gender nor the  $\text{Gender} \times \text{Household Religion}$  interaction was significant,  $ps > .10$ . In contrast, gender differences emerged in private and public regard. The main effect of Gender was significant for private regard,  $F(1, 368) = 6.43$ ,  $p = .012$ ,  $\eta^2 = 0.017$ . Women ( $M = 5.55$ ,  $SD = 1.17$ ) reported higher private regard than men ( $M = 5.16$ ,  $SD = 1.25$ ). The main effect of Household Religion and the  $\text{Gender} \times \text{Household Religion}$  interaction were nonsignificant,  $ps > .05$ . Likewise, the ANOVA on public regard also yielded a main effect of Gender,  $F(1, 368) = 8.23$ ,  $p = .004$ ,  $\eta^2 = 0.023$ . Women ( $M = 3.44$ ,  $SD = 1.36$ ) reported more negative public regard than men ( $M = 3.82$ ,  $SD = 1.26$ ). The effects of Household Religion and the  $\text{Gender} \times \text{Household Religion}$  interaction were nonsignificant for public regard,  $ps > .40$ .

Finally, the  $2(\text{Gender}) \times 2(\text{Household Religion})$  ANOVA on cultural practice yielded a main effect of Household Religion,  $F(1, 362) = 32.57$ ,  $p < .001$ ,  $\eta^2 = 0.090$ . Muslims ( $M = 4.73$ ,  $SD = 1.32$ ) reported greater cultural practice than Christians ( $M = 3.91$ ,  $SD = 1.42$ ). The main effect of Gender and the  $\text{Gender} \times \text{Household Religion}$  interaction were not significant,  $ps > .09$ .

### Age Differences in Ethnic Identity and Cultural Practice

To assess age differences in ethnic identity, ANOVAs were conducted comparing the three age groups (18–24 years, 25–30 years, and above 30 years;  $n = 340$ ). The main effect of Age was significant for ethnic centrality and private regard,  $F(2, 337) = 5.46, p = .005, \eta^2 = 0.031$  and  $F(2, 337) = 4.34, p = .014, \eta^2 = 0.025$ , respectively. Tukey's HSD test was used for post hoc comparisons. Adults under 25 ( $M = 4.28, SD = 1.26$ ) reported lower ethnic centrality than both adults 25–30 ( $M = 4.80, SD = 1.17; q(337) = 4.31, p = .007$ ) and adults over 30 years ( $M = 4.76, SD = 1.39, q(337) = 3.86, p = .018$ ). The two older groups did not differ on ethnic centrality. In contrast, a more graded effect of age was observed for private regard. Adults under 25 ( $M = 5.06, SD = 1.41$ ) were lower in private regard than adults over 30 ( $M = 5.56, SD = 1.19; q(337) = 4.12, p = .011$ ). Adults ages 25–30 did not differ in private regard from the other two groups;  $M = 5.36, SD = 1.15, qs < 2.6, ps > .15$ . The ANOVAs on public regard and cultural practice were nonsignificant, indicating no age differences in those variables,  $Fs < 1.4, ps > .25$ .

### Income, Education, and Immigration Differences in Ethnic Identity and Cultural Practice

Exploratory analyses examined income, education, and immigration status differences in ethnic identity and cultural practice ( $n = 341$  for correlations, 322 for ANOVAs). Neither income nor education was correlated with centrality, private regard, or public regard,  $ps > .05$ . Because Muslims were less likely than Christians to be born in the U.S.,  $\chi^2(1) = 8.40, p = .004$ , household religion was covaried in the analysis of immigrant status differences in ethnic identity. The 2(U.S. Nativity)  $\times$  2(Household Religion) ANOVAs on centrality and private regard showed no differences by U.S. Nativity,  $ps > .06$ . However, public regard differed by U.S. Nativity,  $F(1, 319) = 5.24, p = .02, \eta^2 = 0.016$ . Participants born in the U.S. ( $M = 3.49, SD = 1.30$ ) reported more negative public regard than participants who immigrated to the U.S. ( $M = 3.91, SD = 1.28$ ).

Cultural practice was not correlated with either education or income,  $rs(338) < .1, ps > .30$ . Finally, with religious upbringing covaried, participants born in the U.S. ( $M = 4.09, SD = 1.38$ ) reported lower cultural practice than participants not born in the U.S. ( $M = 4.91, SD = 1.43$ ),  $F(1, 319) = 16.55, p < .001, \eta^2 = 0.049$ .

### Sensitivity Analyses

When limiting participants to those who reported cultural origins in a traditionally Arab country ( $n = 233$ ), the same pattern of results was observed. However, the gender effect on private regard was attenuated and no longer significant;  $F(1, 217) = 4.68, p = .08, \eta^2 = 0.06$ . Also, Arab Americans born in the U.S. had more negative private regard ( $M = 5.21, SD = 1.42$ ) relative to those born outside of the U.S. using this subsample ( $M = 5.49, SD = 1.20$ ),  $F(1, 217) = 4.24, p = .041, \eta^2 = 0.02$ . Full results are provided in supplemental information.

There were also 11 participants who initially identified as Caucasian. These participants had significantly more positive public regard than other participants,  $t(389) = 2.73, p = .007$ , suggesting that participants who identified as Caucasian believed that Arab Americans are viewed more positively ( $M = 3.59, SD = 1.32$ ) than did the participants who did not identify as Caucasian ( $M = 4.69, SD = 1.10$ ). Therefore, analyses were also repeated excluding

the 11 participants who initially identified as Caucasian ( $n = 380$ ). The pattern of results did not change, as all differences that had emerged in ethnic identity and cultural practice by religion, gender, or age in the full sample remained significant when excluding these participants from the sample. Full results are also reported in supplemental information.

## Discussion

Our adapted version of the MIBI (Sellers et al., 1997) and the newly developed measure of cultural practice show promise as reliable and valid measures of ethnic identity content in Arab Americans. Women generally had higher private regard and more negative public regard than men, and Muslims reported higher ethnic centrality and cultural practice than Christians. Young adults reported lower ethnic centrality and private regard than older adults. Results highlight heterogeneity in how Arab Americans identify with their ethnic background.

### Measuring Ethnic Identity in Arab Americans

Results suggested that the ethnic-racial centrality, private regard, and public regard constructs that have been measured in other ethnic-racial groups (see Schwartz et al., 2014) also emerged as measurable constructs in Arab Americans. The adapted items from the MIBI (Sellers et al., 1997) loaded onto three factors corresponding to ethnic centrality, private regard, and public regard, as anticipated. Alpha reliability values were similar to those found with other racial and ethnic groups (e.g., Volpe et al., 2019; Yip et al., 2022b). Items were removed due to invariance, similar to how items were removed when adjusting the measure for use among Native Americans and Latina women (Chee et al., 2019; Derlan et al., 2018). Using invariance tests, we developed a measure of ethnic identity that can be used to examine differences in identity by gender and household religion.

Participants reported having generally positive views of Arab Americans and that being Arab American was somewhat important for their ethnic identity, on average, in line with previous studies that have found that Arab Americans have a positive sense of belonging and affirmation (e.g., Semaan, 2015; Sheldon et al., 2015). In designing a new ethnic identity measure for MENA individuals, Resnicow et al. (2021) measured three different constructs: cultural affiliation, media use (i.e., consumption of Arab or Arab American media and following Arab news), and multicultural affiliation (i.e., identification with other racial/ethnic minority groups in the U.S.). Their measure of cultural affiliation, which included items such as “Many things that are important to me are connected to my Arab American identity” (p. 1069) was conceptually most similar to our measure of ethnic centrality, and indeed was positively related to ethnic centrality in their sample, which they measured with a single question (“How important is being Middle Eastern/North African to your overall identity?” (p. 1070).

In our sample, centrality was highly related to private regard, but not public regard. More positive feelings about one’s group may prompt individuals to identify more strongly with that group, or vice versa. Similar findings have been observed among Asian, Black, Latino, and Native American adults and adolescents, underscoring that private and public regard are unique constructs (Chee et al., 2019; Hoffman et al., 2021; Stein et al., 2017; Thomas et al.,

2022; Willis & Neblett, 2020; Yip et al., 2022b). Private regard was also unrelated to public regard, although private regard has been positively related to public regard in studies of Black, Native American, and Asian Pacific Islander adults (Chee et al., 2019; French et al., 2013; Hope et al., 2020). This association may not have emerged because Arab Americans who view their group more positively may also be aware of the negative portrayals of Arab Americans in media and feel that Arab Americans are viewed negatively in society.

Cultural practice represents one means by which ethnic groups can express their identity (Resnicow et al., 2021). Our measure of Arab cultural practice showed strong inter-item reliability and differed across Christians and Muslims in anticipated ways. Interestingly, Arab Americans who engaged more frequently in Arab cultural practices had higher ethnic centrality, more positive private regard, and more positive public regard. People with more positive views of their ethnic group may be more inclined to engage in cultural practices, or engagement with cultural practices may foster more positive attitudes about one's ethnic group. Moreover, stigma regarding Arab culture may cause Arab Americans to have lower private and public regard, and to feel uncomfortable practicing aspects of their culture, such as speaking Arabic and eating cultural foods.

### **Gender and Household Religion Differences in Arab American Identity**

Because ethnic identity often intersects with other social identities such as gender (Settles & Buchanan, 2014), differences in ethnic identity by gender and religious upbringing were tested. We hypothesized that women would be higher than men in all components of ethnic identity for two reasons. First, women often experience greater expectations in cultural traditions and are expected to uphold cultural traditions for the family (Abboud et al., 2015; Abdel-Salam et al., 2019). Second, Arab American women are less likely than their male counterparts to work outside the home and interact in a workplace with non-Arab coworkers (Amer, 2014). The hypothesis regarding gender differences was not supported with regard to either ethnic centrality or cultural practice: Men and women did not differ in their reports. These results are similar to those found by Resnicow et al. (2021), who found no gender differences in reports of cultural affiliation (e.g., “many things that are important to me are connected to my Arab American identity”) in a sample of MENA adults.

Although no gender differences were reported in ethnic centrality or cultural practice, women in our sample reported higher private regard and more negative public regard than men. These gender differences in private regard are consistent with findings that Arab American adolescent girls reported higher ethnic affirmation, belongingness and pride (as measured on the MEIM) than Arab American boys (Ahmed et al., 2011). Similarly, in three samples of Arab American adults, women had higher scores than men on a three-item measure resembling private regard (e.g., “How proud are you of your ethnic heritage?”; Nassar-McMillan et al., 2011, p. 41). Gender differences in social relationships and behaviors may lead to these differences in private and public regard between Arab American women and men. For example, although both women and men may view their Arab identity as central to who they are as individuals, gender differences in time spent at home—in the family context and perhaps with other Arab Americans—might lead women to have stronger attitudes regarding their ethnic group. Arab American women may also feel



more excluded or disrespected by non-Arabs, leading to lower public regard in comparison to Arab American men.

Muslims in our sample reported higher ethnic centrality and cultural practice than Christians, but no household religion differences emerged in private or public regard. Using a scale of ethnic identity content, we found that Arab American identity contributes more to Muslims' overall self-concept, consistent with previous findings that examined religious differences in ethnic identity process (Awad, 2010) and ethnic identity broadly (Resnicow et al., 2021). Arab American identity may be less central to Christians than Muslims because of how embedded Islam is in Arab culture, or because Christians may potentially acculturate more easily and benefit from this acculturation to American society (Abdulrahim et al., 2012; Awad, 2010). Many Christian Arabs may also report lower levels of ethnic identity than Muslim Arabs because they identify with labels specific to their nation or ethnic group. Although participants reported that the category Arab or Arab American defined their identity to some degree, it is possible that Christian Arabs in this sample may speak Arabic and have ancestry from Arab countries but still have other ethnic labels that are more relevant to them.

Importantly, our results suggested that Arab Americans' attitudes regarding ethnic identity (i.e., private and public regard) did not differ by religious upbringing. Because Christianity is the major religion in the U.S., one might anticipate that Christians would perceive higher public regard than Muslims. Further, recent research has suggested that Muslim Arabs might be viewed as less trustworthy than non-Muslim Arabs (Calfano et al., 2021). The lack of difference in public regard may have emerged because both Christian and Muslim Arabs experience anti-Arab discrimination, potentially due to non-Arabs conflating Arab culture with Islam (Abdel-Salam et al., 2019; Awad et al., 2017; Melhem & Punyanunt-Carter, 2019; Sirin et al., 2021). Alternatively, public regard might have been similar in spite of more negative societal views of Muslims because Christian Arabs may have more contact with non-Arabs than Muslim Arabs and consequently may be more cognizant of negative public perception.

### **Age and Immigration Differences in Ethnic Identity**

We hypothesized that older Arab American adults would identify more strongly with their ethnic identity than younger adults. As anticipated, centrality differed with age, with young adults between 18 and 24 reporting lower centrality than the other age groups. Results also showed that the oldest group reported the highest private regard, and the youngest group reported the lowest. Arab American young adults may have more negative private regard because they are still exploring their ethnic identities, and they may develop more positive feelings regarding their ethnic group membership after further exploration, as has been observed in other ethnic groups (Umaña-Taylor et al., 2014). Young adults are also often in academic or workplace environments where they may feel that they do not belong because of their ethnicity, which could result in more negative private regard during this period. Additionally, in Arab culture there is a large emphasis on family. It is possible that with age, Arab Americans develop a more central ethnic identity and become more focused on cultural values, such as connecting with family and imparting cultural values to children, that affirm

their ethnic identity. Finally, it is possible that age differences might reflect birth cohort differences. Younger generations tend to be more acculturated to American culture, which can result in lower ethnic centrality. Many younger Arab Americans also grew up in the aftermath of 9/11. Following 9/11, there was a rise in American nationalism and hate crimes against Muslims and Arab Americans (Sirin et al., 2021). Growing up in this climate could have caused Arab American children to feel more conflict between their American and Arab American identities and thereby contribute to lower ethnic centrality among younger relative to older adults (Kumar et al., 2015; Rasmi et al., 2015). Internalization of negative messages about their cultural group could also contribute to more negative private regard.

Exploratory analyses revealed that participants born in the U.S. reported more negative public regard and engaged in fewer cultural practices than immigrants. People born in the U.S. may be more attuned to experiences of discrimination and bias in media. Indeed, Arabs born in the U.S. report more discrimination than immigrants (Abdulrahim et al., 2012), and similar results have been found in other ethnic minority groups (e.g., Mossakowski et al., 2019). Sensitivity to discrimination may cause Arab Americans to engage in fewer cultural practices in order to avoid negative sentiment and stigma. Arabs born in the U.S. may also attach less value to specific cultural practices such as speaking Arabic and therefore be less inclined than foreign-born Arabs to engage in Arab cultural practices.

When limiting the sample to participants who reported cultural origins in a traditionally Arab country, we also found that participants born in the U.S. had more negative private regard than those who were born elsewhere. Differences in private regard by generation status (i.e., individuals born in the U.S. versus elsewhere) have not been found previously among ethnically diverse youth (e.g., Wang, 2021). The association between birth country and private regard may be apparent among Arab Americans because Arab Americans may perceive messages suggesting that their Arab American identity is incompatible with being American given the political climate (Hakim et al., 2018). Arab Americans who are not born in the U.S. may grow up in traditional Arab cultures and societies, which can promote positive perceptions of their Arab identity and buffer against the negative messages regarding Arabs in American society. In contrast, Arab Americans born in the U.S. may have never been to their country of cultural origin, limiting exposure to many positive aspects of being Arab American. Moreover, these individuals may experience negative portrayals of Arabs and microaggressions linked to their ethnicity, which may contribute to more negative views of being Arab American (Abdulrahim et al., 2012; Melhem & Punyanunt-Carter, 2019). Such differential experiences would lead to a relation between longer amount of time in the U.S. and a more negative private regard.

## Implications

Findings have implications for better understanding the heterogeneity of Arab Americans' experiences. Focus groups have indicated that people of Arab descent have different identity labels with which they feel comfortable, including identifying with their nationality, with their religion, as MENA, and as Arab or Arab American (e.g., Abboud et al., 2015; Kumar et al., 2014). These social identities can coexist, and many individuals may identify with all of these social groups to differing extents. For instance, people might experience more

mistreatment associated with specific social identities (e.g., Muslim versus Arab; Calfano et al., 2021). By having different measures available, researchers can assess the relative salience of these different identities. Future research might administer this measure with other measures of social identities (e.g., MEIM) to assess convergence of results and assess profiles of identities, in order to differentiate whether certain individuals identify more strongly with each social group. Future research can assess whether people may feel more connected to their identities that are more stigmatized in line with the rejection identification model (Hakim et al., 2018) or whether membership in a relatively high status group may mitigate the negative stereotypes associated with membership in a low status group (Roccas & Brewer, 2002). Given that many individuals identify more strongly with the label of Middle Eastern rather than Arab or Arab American (Awad et al., 2021), researchers might modify these scales to address identity content associated with MENA identity. This may be a promising avenue for future research given that recent research has found that people of Arab ancestry are more likely to self-identify as MENA and to be categorized as MENA than as White by other people (Maghbouleh et al., 2022).

Additionally, future studies should assess associations between identity constructs (i.e., centrality, private regard, public regard, and cultural practice) and health, which have been found with members of other marginalized groups (Thomas et al., 2022; Willis & Neblett, 2020; Yip et al., 2022a). This measure might be useful in examining such relations in Arab Americans, in line with evidence that higher levels of ethnic identity process as measured by the MEIM have been related to better mental health among Arab Americans (Sheldon et al., 2015). Holding positive views of Arab Americans (i.e., private regard), perceiving that non-Arabs also have positive views (i.e., public regard), and a strong affiliation with one's Arab identity (i.e., centrality) may all promote physical and mental health in Arab American individuals (see Awad et al., 2019, for a synopsis of the interweaving of health and identity in MENA individuals). Results of the current study also illustrate that relations between Arab identity content and well-being should consider other social identities such as gender, religious affiliation, and age.

### Study Limitations

Internet recruitment of Arab American participants allows for anonymity, reduces fear of stigma—which may be a relevant concern for Arab Americans—and enables recruitment of participants from across the country (Barry, 2001). Strengths of the study include an eligibility questionnaire and a separate eligibility item as part of the survey to ensure that participants identified to some degree as Arab or Arab American, given that many people from the Middle East and North Africa do not identify ethnically as Arab (Awad et al., 2021). Also, participants completed both an attention check and an honesty check, supporting the quality of the data.

Our findings must also be interpreted in the context of study limitations. First, we used an online convenience sample. This approach could have contributed to an unequal distribution of individuals by country of origin. Recruitment of a sample with more equal representation across Arab countries would have enabled examination of national and pan-Arab cultural identification, which is an important area for future research. Because we used

a convenience sample, the generalizability of findings is limited to technologically savvy participants who are fluent enough in English to complete this survey. These limitations potentially reduced the sizes of effects by age and nativity, as older participants and immigrants may be less familiar with mTurk. Also, participants were recruited to participate in a study that was posted as seeking Arab Americans. Although we found that participants were above the scale midpoint for centrality and private regard, it is possible that participants in a random sample (i.e., Arab Americans recruited without mention of ethnicity) might have reported lower ethnic centrality and lower private regard.

Second, the specificity of the eligibility questionnaire may have influenced the sample population. Participants were asked to report the nation(s) with which they identify, rather than the countries that they associate with their Arab or Arab American identity. This wording may have influenced participants' responses. A subsample of participants may have identified as Arab American despite identifying with a country that is not traditionally part of the Arab World (i.e., Pakistan, Iran) because of mixed/multiple identities. Given conflation of terms regarding Arab American and MENA descent, future studies can specifically distinguish the terms for participants to avoid confusion, ask participants to specify the countries with which they ethnically identify at the start of the survey, or explicitly note in the eligibility criteria that these countries are not considered part of the Arab World. This item was regrettably optional for completion and was the final item in the survey. Because of the importance of this information, this item should be included at the start and required for completion in future studies. Still, all participants reported that the label Arab or Arab American defined their racial/ethnic identity to some degree, and analyses excluding participants who did not report national origin showed consistent results. Future research could test scale validity among specific ethnic groups and specific nationalities of Arab Americans and use different recruitment methods to further validate the scale and examine the robustness of findings. Third, as with most survey research, it is possible that despite the use of data quality checks, some participants' responses might be of low reliability and validity because of wavering attention or social desirability bias, and that participants may have provided inaccurate reports regarding their eligibility for the study. Results should be replicated with other Arab American samples.

Although the present study assessed Arab or Arab American identity, identity as a MENA individual constitutes another salient social identity that may have implications for daily experiences. The present study did not assess MENA identity because of concerns that inclusion of people who are Middle Eastern but not Arab (i.e., people identifying with Iran, Israel, Pakistan) may incorporate additional variance in the cultural practice measures and thereby reduce measure validity. Future studies can assess whether the MIBI can similarly be adapted for MENA identity and develop a cultural practice scale that can be administered to a broader population, and potentially compare levels of Arab and MENA identity.

Additional limitations are lack of information regarding religion, possible geographical and urban/rural diversity, and reasons for age differences in reports. Future studies should assess other religious affiliations that are particularly common for Arab Americans, such as Maronite and Coptic Christians and Shi'a and Sunni Muslims. Although the present study compared the ethnic identity of Arab Christians and Arab Muslims, there are diverse

subgroups within each of these religions, and more fine-grained comparisons could reveal important distinctions regarding the complexity of religious and ethnic identity among Arab Americans.

Much prior research has studied Arab Americans living in an ethnic enclave, and living in an ethnic enclave may influence reports of ethnic identity because ethnic enclaves can provide social support, greater contact and a sense of belonging with other Arabs, and potentially fewer experiences of discrimination from non-Arab peers (Kumar et al., 2015). Although this study used online recruitment to access a national sample, we do not have information regarding the extent of participants' geographical diversity. Finally, data were reported at a single timepoint. Longitudinal designs examining age differences in ethnic identity can better document developmental versus cohort differences in identity. This research will also be enriched by examining identity in more middle-aged and older adults and examining factors that likely shape ethnic identity such as parental ethnic-racial socialization (e.g., Else-Quest & Morse, 2015).

## Conclusions

This paper presents a tool for assessing the content of ethnic identity among Arab Americans that can be used in future research. Analyses confirmed that these facets of identity—centrality, private regard, and public regard—are distinct and relevant constructs among Arab Americans. By examining heterogeneity in the content of Arab American identity, we found that women reported higher ethnic regard than men, Muslims reported higher ethnic centrality and cultural practice than Christians, and young adults reported lower centrality and private regard than older adults. Future research might assess the development and expression of cultural identification in Arab Americans and test how these aspects of identity are related to physical and psychological well-being.

## Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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## Appendix.

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1. Being Arab or Arab American is a major factor in my social relationships.
  2. I have a strong sense of belonging to other Arabs and Arab Americans.
  3. Being Arab is an accurate reflection of whom I am.
  4. I have a strong attachment to other Arabs or Arab Americans.\*
  5. In general, being Arab or Arab American is an important part of my self-image.\*
  6. Overall, being Arab or Arab American has very little to do with how I feel about myself.

- 7. My race/ethnicity is important to my sense of what kind of person I am.\***
- 8. I am happy to have Arab culture in my heritage.*
- 9. I feel that the Arab community has made major accomplishments and advancements.*
- 10. I feel good about Arabs and Arab Americans in general.*
- 11. I feel that the Arab community has made valuable contributions to society.*
- 12. I feel good about being Arab or Arab American.*
- 13. I often regret that Arab culture is part of my familial heritage.*
14. American society views Arabs as an asset.
15. In general, other groups in America view Arabs in a positive manner.
16. Arabs are thought of as good by Americans who are not of Arab descent.
17. Arabs are respected by the broader society.
18. Most Americans who are not of Arab descent consider Arabs to be as effective as other groups.
19. I know how to read and write Arabic.
20. I predominately speak Arabic in my home.
21. I engage with other Arabs on a regular basis.\*
22. I watch programming from the Middle East.
23. I read literature from the Middle East.\*
24. It is important for me to be informed about the news regarding countries in the Middle East.\*
25. I often eat Arab and Mediterranean cuisine.
26. I wear distinctively Arab clothing.\*

*Note:* Items that appear in bold correspond to the centrality measure, items that appear in italics correspond to the private regard measure, and items that appear underlined correspond to the public regard measure. Items in plain text correspond to the cultural practice measure. Items 6, 13, and 18 are reverse-coded.

Items with an \* were removed from the final measure in order to maintain metric and scalar invariance across gender and religious upbringing.

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**Table 1.**

Sample characteristics.

	Frequency	Percentage
Female	204	52.2%
Muslim	221	56.5%
Born Abroad	83	24.4%
Age		
Under 24	100	29.4%
25–30	125	36.8%
30+	115	33.8%
Educational Attainment		
Less than Bachelor's degree	116	34.0%
Bachelor's degree	154	44.6%
Graduate degree	73	21.4%
Household Income		
Less than \$35,000	91	26.4%
\$35,000 to \$49,999	64	18.8%
\$50,000 to \$74,999	89	25.8%
Above \$75,000	99	29.0%
Country		
Lebanon	47	14.2%
Iran	38	11.5%
Saudi Arabia	35	10.6%
Egypt	35	10.6%
Iraq	35	10.6%
Jordan	19	5.8%
Syria	19	5.8%
Israel	18	5.5%
Palestine	14	4.2%
United Arab Emirates	11	3.3%
Pakistan	11	3.3%
Other Arab Nations	48	14.5%
No specific country (e.g., Arab World)	25	7.6%

*Note:* All participants reported gender and religion. 19 participants reported being raised in households that practiced both Christianity and Islam. Some participants did not report birth country, education, income, and country; percentages in the table are of those who responded to that item. Participants could report identifying with multiple countries from the Middle East such that the total exceeds 100%.

**Table 2.**

Factor loadings from exploratory factor analysis.

	Centrality	Private Regard	Public Regard
1. Being Arab or Arab American is a major factor in my social relationships.	<b>.73</b>	-.06	.08
2. I have a strong sense of belonging to other Arabs and Arab Americans.	<b>.68</b>	.17	.12
3. Being Arab is an accurate reflection of whom I am.	<b>.60</b>	.22	.07
4. I have a strong attachment to other Arabs or Arab Americans.*	<b>.58</b>	.34	.06
5. In general, being Arab or Arab American is an important part of my self image.*	<b>.56</b>	.34	-.06
6. Overall, being Arab or Arab American has very little to do with how I feel about myself.	<b>-.55</b>	.09	.37
7. My race/ethnicity is important to my sense of what kind of person I am.*	<b>.55</b>	.29	-.06
8. I am happy to have Arab culture in my heritage.	.08	<b>.83</b>	.01
9. I feel that the Arab community has made major accomplishments and advancements.	.01	<b>.82</b>	-.02
10. I feel good about Arabs and Arab Americans in general.	.04	<b>.82</b>	.00
11. I feel that the Arab community has made valuable contributions to society.	.02	<b>.82</b>	-.07
12. I feel good about being Arab or Arab American.	.24	<b>.62</b>	.09
13. I often regret that Arab culture is part of my familial heritage.	.10	<b>-.50</b>	.20
14. American society views Arabs as an asset.	.07	-.08	<b>.81</b>
15. In general, other groups in America view Arabs in a positive manner.	.09	.01	<b>.77</b>
16. Arabs are thought of as good by Americans who are not of Arab descent.	-.04	-.07	<b>.74</b>
17. Arabs are respected by the broader society.	-.08	.12	<b>.64</b>
18. Most Americans who are not of Arab descent consider Arabs to be as effective as other groups.	.10	.11	<b>.55</b>

*Note:* The largest factor loading for each item appears in bold. Items marked with an \* were removed from the final subscales in order to maintain metric and scalar invariance across gender and religious upbringing groups.  $N = 391$ .

**Table 3.**

Descriptive information and correlations for continuous study variables.

	<i>N</i>	<i>M</i>	<i>SD</i>	1.	2.	3.	4.
1. Centrality	391	4.68	1.28	—			
2. Private Regard	391	5.37	1.23	.57*	—		
3. Public Regard	391	3.62	1.33	.05	.04	—	
4. Cultural Practice	385	4.33	1.43	.50*	.29*	.25*	—

Note:

\*  
 $p < .001$ .