Coping with Discrimination: The Roles of Discrimination, Coping, and Group Identity in Alcohol Use among Filipin@ American Young Adults

Andrew Philip Paves

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Reading Committee:

Mary Larimer, Chair

William George

Jane Simoni

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Abstract

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Andrew Philip Paves

Chair of the Supervisory Committee:
Professor Mary Larimer
Department of Psychology

Filipino Americans (Fil-Ams) are currently the second largest Asian and Pacific Islander (API) American group in the United States. Compared to other APIs, Fil-Ams are a suspected at-risk group for problematic alcohol use. Fil-Ams also report experiencing discrimination at higher rates than other APIs, and it has been hypothesized that alcohol use is a means to cope with discrimination. Group identity, the extent to which one identifies with a specific social group (e.g. ethnic, national), may moderate the association between discrimination and health outcomes, including problem drinking. The present research examined the extent to which coping responses to discrimination are associated with alcohol-related problems, and whether different dimensions of group identity are related to this process. The specific aims were to: (1) develop measures for group identity and discrimination that accurately assess experiences of Fil-Ams; (2) pilot test the new measures for validity and reliability; (3) assess the relations among discrimination, coping, and alcohol-related problems; and (4) assess the role of group identity as a potential moderator in

the association between discrimination/coping, and alcohol use. In accomplishing Aims 1-2, item development process and subsequent pilot testing ($N = 390$) resulted in two ethnic-specific scales: the Filipin@ American Microaggressions Scale (FAMS) and the Filipin@ American Identity Measure (FilAmIM). For Aims 3-4, moderated mediation analyses ($N = 444$) revealed a near significant indirect effect between perceived discrimination and alcohol-related problems through avoidant coping; in turn, this mediating relationship was moderated by Filipino (ethnic) and American (national) identity. The conditional indirect effect was strongest for individuals having an Assimilated Identity profile, i.e. high in American and low in Filipino identity. The findings highlight the need to consider multiple dimensions of group identity in understanding the relationship between discrimination and health, the conditions one may utilize specific coping strategies in response, and in understanding the efficacy of specific coping. Overall, the research addresses important knowledge gaps regarding the variability in alcohol use across specific API groups and the potential health effects of exposure to discrimination. It provides the basis for developing culturally appropriate interventions to prevent and treat problematic drinking among Fil-Ams as well as etiological research with other API subgroups.

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1.0.0 Introduction

Filipino Americans (Fil-Ams) are currently the second largest Asian and Pacific Islander (API) American ethnic group. Despite this, they are underrepresented in alcohol research. Most studies of APIs had samples comprised primarily of individuals with East Asian backgrounds (David & Okazaki, 2006b), and may not be representative of other groups. The overall goal of this project was to address important research gaps by focusing on the etiology of alcohol use within a specific subgroup of APIs and the potential health effects of discrimination.

1.0.1 Filipino American Behavioral Health

Data on Fil-Am behavioral health has been often subsumed in studies that aggregate all Asian Americans in to a single group. In doing so, the specific experiences and behavioral health needs of Fil-Ams may remain unrecognized or unaddressed. For example, Filipino American adults and adolescents may be at increased risk for depression and suicidal ideation relative to other Asian Americans as well as the general population (as reviewed in David, 2010). Making these issues more concerning are low rates of treatment seeking. While Asian Americans use mental health and substance abuse treatment services less than the general population (e.g., Abe-Kim, Gong, & Takeuchi, 2004; Sakai, Ho, Shore, Risk, & Price, 2005), Fil-Ams utilize treatment at rates lower than even other Asian Americans (Gong, Gage, & Tacata, 2003). Attitudes toward treatment seeking for Fil-Ams have also been found to be related to cultural mistrust, i.e. distrust of mainstream institutions such as education and health care systems. Additionally, cultural values may dictate that it would be shameful to reveal personal problems to both family and mental health specialists (David, 2010; Nadal, 2000). Alcohol problems, for example, may be ignored and rather than seeking professional help, drinking may be used to cope with

psychological stress (Javier et al., 2014). This reiterates the need for research and interventions that address the specific concerns of the Fil-Am community.

1.0.2 Filipino American Alcohol Use

Historically, there has been an assumption that APIs of all backgrounds are at low risk for heavy alcohol use and related problems. However, based on data from the National Epidemiological Study of Alcohol and Related Conditions (NESARC), rates of DSM-IV alcohol abuse and dependence increased among APIs from 1991-2002 (Grant et al., 2004). In 2012-2013, the 12-month prevalence of DSM-5 alcohol use disorders (AUDs) among APIs was 10.6%: 5.9% for mild, 2.5% for moderate, and 2.2% for severe (Grant et al., 2015). Although different diagnostic criteria were used, these rates appear similar to those observed in 2002. As with any finding with APIs as a whole, this does not account for variation between specific subgroups and may not be an accurate assessment for Fil-Ams alone.

Few studies have examined alcohol use among Fil-Ams and those that have were primarily comparison studies. Based on those results, Fil-Ams may be among the higher risk API groups. In a survey of junior high students in California, a greater portion of Fil-Ams reported initiating alcohol use and getting drunk when compared to Southeast Asians and other Asian Americans (Harachi, Catalano, Kim, & Choi, 2001). A study with college students in California revealed higher rates of heavy drinking in Fil-Am and Korean American students (Lum, Corliss, Mays, Cochran, & Lui, 2009). Among U.S. born Asian American college students, Fil-Ams reported increased binge drinking episodes (4 [female] or 5 [male] drinks in a 2 hour sitting and were at increased risk for experiencing alcohol-related problems (Iwamoto, Takamatsu, & Castellanos, 2012). Finally, nationwide data indicated that Fil-Am, Japanese, and Korean American adults are more likely than other APIs to be current moderate or heavy drinkers

(Barnes, Adams, & Powell-Griner, 2008), while increased rates of binge drinking were observed among Fil-Am adults to other Asian American adults in California (Maxwell, Danao, Cayetano, Crespi, & Bastani, 2012).

There have been few etiological studies that have examined factors in drinking among Fil-Ams. Those that have primarily utilized data from the Filipino American Community Epidemiological Study (FACES), a large community study that took place from 1995-1999 and sampled Filipino adults in San Francisco and Honolulu. Risk factors for AUD varied between Filipinos in Honolulu and San Francisco, and included greater psychological distress, less emotional support, and being born in the U.S, while protective factors included increased religiosity (Kim, Kim, & Nochajski, 2010). Risk factors for heavy drinking, defined as binge drinking at least once per month, varied by birthplace and included being male, city of residence, and greater perceived discrimination (Kim & Spencer, 2011).

Like other ethnic groups, problem drinking within Fil-Ams likely occurs among the young adult age group. National prevalence of alcohol disorders has been highest in the 18-29 year age range. The pattern has held true for APIs overall, at an estimated 7.39% (Grant et al., 2004). Additionally, DSM-IV alcohol dependence doubled for API males aged 18-29 from 1991-2002, while rates of alcohol abuse in API females increased nearly five fold (Grant et al., 2004). With the exception of few college student samples, there is no ethnic-specific data to indicate the extent of alcohol use for Fil-Ams across this age group.

As can be seen, the research literature on alcohol use among Fil-Ams is relatively sparse. Etiological studies in particular have not examined potential mechanisms contributing to problematic alcohol use. Thus, the literature can benefit from additional studies that focus on alcohol use specifically among higher-risk Fil-Ams.

1.1.0 Discrimination as a Risk Factor

Discrimination is consistently linked with negative health effects, psychological distress, and alcohol or substance disorder among people of color (e.g., Chae et al., 2008; Clark, Salas-Wright, Vaughn, & Whitfield, 2015; Gee et al., 2006; Gee, Delva, & Takeuchi, 2007a; Harrell, 2000). Fil-Ams have reported perceiving the highest levels of discrimination compared to other APIs (Gee, Spencer, Chen, Yip, & Takeuchi, 2007c; Kuo, 1995; Liang, Alvarez, Juang, & Liang, 2009). Several interpretations for this finding have been made, and scholars tend to take a sociohistorical perspective. In particular, it has been proposed that the history of U.S. colonization has familiarized generations of Filipinos to the racial dynamics of the United States. Thus, Fil-Ams may be quicker to recognize or perceive discriminatory events (Alvarez & Juang, 2010; David & Okazaki, 2006a). Another reason may be phenotype, noting differences in skin tone between individuals of Filipino background and other Asians. Thus, Fil-Ams may be treated differently than other Asians because of appearance (Nadal, 2004; 2009).

Among Fil-Ams, workplace discrimination has been associated with poor health conditions (de Castro, Gee, & Takeuchi, 2008). Additionally, analyses from the FACES data revealed that greater experiences of discrimination were associated with depressive symptoms (Mossakowski, 2003). Evidence linking discrimination to alcohol use came from the same study, as Fil-Ams who were alcohol dependent reported higher levels of discrimination (Gee, Delva, & Takeuchi, 2007a) and discrimination was also a risk factor in heavy drinking (Kim & Spencer, 2011). Considering the prominence of discrimination among Fil-Ams, it is worth examining potential mechanism by which it may increase risk for alcohol-related problems.

1.1.1 Measuring Discrimination among Filipino Americans: Microaggressions

Research on discrimination and race-related stress has shifted towards examining contemporary experiences with racism, specifically the health effects of microaggressions. These are defined "brief and commonplace daily verbal, behavioral, and environmental indignities, whether intentional or unintentional, that communicate hostile, derogatory or negative racial slights and insults to the target person or group'' (Sue et al., 2007). While these may be innocuous events in isolation, it has been proposed that the accumulation of such experiences has detrimental effects on health. In regards to alcohol use, one study at a southern U.S. college found that students of color experienced an average of almost 290 microaggressions in 90 days, and a greater number of microaggressions predicted binge drinking and alcohol related problems (Blume, Lovato, Thyken, & Denny, 2012).

A limitation in the research on microaggressions and discrimination in general is that it has not determined whether specific types of discrimination, including acts targeted at specific groups, have differential effects on health outcomes (e.g., Wong, Derthick, David, Saw, & Okazaki, 2013). Discrimination towards Fil-Ams is complex and multilayered, and may not be adequately captured by any existing measures. Because Filipino is categorized an Asian racial group and because of cultural similarities, Fil-Ams are prone to experiencing stereotypes attached to Asian Americans in general, such as the "model minority" or "perpetual foreigner" (Nadal, 2008). At the same time, Fil-Ams may be perceived as intellectually inferior compared to other Asians, may be marginalized from the broader Asian American community, or experience microaggressions typically at other groups such as racial profiling and assumptions of criminality (Nadal, 2009; Nadal, Escobar, Prado, David, & Haynes, 2012; Sue, Bucceri, Lin, Nadal, & Torino, 2009). Finally, Fil-Ams may also report unique experiences of

microaggressions. For example one theme reported was "invisibility," whereby Filipinos are not represented in mainstream American and therefore others lack knowledge about Filipinos or Filipino culture (Nadal et al., 2012).

Experiences with discrimination among Fil-Ams may vary by demographics. For example, participants in the FACES study who resided in San Francisco were more likely to report discrimination than those in Hawaii. Meanwhile, U.S.-Born Fil-Ams have reported greater discrimination than immigrants (Mossakowski, 2007). At the same time, however, similar types of experiences have been reported by both 1st and 2nd generation Fil-Ams (Tuason, Taylor, Rollings, Harris, & Martin, 2007). Establishing an ethnic specific measure for discrimination may ensure that Fil-Am experiences are accurately assessed. It may also provide insight in to the differential risk of specific types of discrimination. Hence, the initial aim of the study is to develop a measure of discrimination specifically for Fil-Ams.

1.2.0 Coping With Discrimination

The impacts of discrimination may be accounted for by coping strategies used in response to discriminatory events, as coping behavior has mediated the relationship between discrimination and health outcomes (e.g., (Alvarez & Juang, 2010; Liang et al., 2009; Villegas-Gold & Yoo, 2014). This area of research has attempted to identify which coping responses may lead to more negative outcomes and which may lead to more positive, as coping may serve as a potential point of intervention (Folkman & Moskowitz, 2004).

A study of Fil-Am adults examined four types of coping strategies as a mediator in the relationship between everyday racism and psychological outcomes. Among Fil-Am men, active coping strategies in response to discrimination (e.g. problem solving) predicted decreased

distress), support seeking (e.g. seeking comfort from others) predicted greater distress. Although not predicted by discrimination, forbearance coping (e.g. spirituality) was negatively related to distress while avoidance (e.g. trying to forget about the event) was positively related. For Filipina American women, avoidance coping had a strong positive relationship with distress and active coping was negatively related to distress. When self-esteem was the dependent variable, discrimination predicted avoidance coping which in turn predicted lower self-esteem amongst both men and women, while active coping had a positive relationship (Alvarez & Juang, 2010).

Assessing only coping strategies typically used in response to general stressors, i.e. general coping strategies, may miss strategies that are unique responses to discrimination. Wei and colleagues (2010) identified coping strategies specific for discrimination that predicted mental health outcomes. For example, resistance coping (e.g. directly challenging an offender) was negatively associated with depression symptoms while education/advocacy strategies (e.g. educating others about discrimination) were associated with increased life satisfaction. In the current study, both general coping styles and discrimination-specific strategies will be considered.

Few studies examining coping strategies and discrimination have examined alcohol use as an outcome, typically focusing on psychological and emotional outcomes. Thus, an additional aim of this study was to examine the potential mediating role(s) of various types of coping in response to discrimination.

1.2.1. Coping and Alcohol Use

A number of theories have been proposed that link stress and coping processes to alcohol and substance use (e.g., Cooper, Russell, & George, 1988; Cooper, Russell, Skinner, & Windle, 1992; Wills & Shiffman, 1985). Based on these theories, the function of alcohol use may be to either to reduce the emotional impact of a stressor or to escape the problem, i.e. emotion-focused

coping (Billings & Moos, 1984), which may have detrimental effects in the long-term. Emotion-focused coping reducing is associated with problematic alcohol use when faced with stress or stressful life events (Cooper et al., 1992; Koopman, Wanat, Whitsell, Westrup, & Matano, 2003; Veenstra et al., 2007; Windle & Windle, 1996).

A primary motive for alcohol use in Fil-Ams may be for coping in general. A study based in Hawaii revealed that Fil-Am drinkers reported less celebratory reasons for drinking and greater likelihood to drink in response to negative affect (Johnson, Schwitters, Wilson, Nagoshi, & McClearn, 1985). Additionally, qualitative data from Fil-Am drug users revealed use in response to feelings of depression and loneliness (Nemoto et al., 1999). In other populations, drinking as a means of coping, i.e. coping motives, has been related to heavy drinking and related problems (Carpenter & Hasin, 1999; Cooper et al., 1988).

Among a sample of U.S. college students, coping motives were associated with both discrimination and increased alcohol-related problems (Hatzenbuehler, Corbin, & Fromme, 2011). It was not clear whether coping motives for drinking represented coping with discrimination experiences or negative affect resulting from discrimination; only that these individuals tend to drink for the purposes of reducing negative affect. Meanwhile, African American adults and adolescents whom reported coping through substance use, in response to everyday stressors, were more likely to engage in various forms of alcohol and substance use when experiencing greater discrimination (Gerrard et al., 2012).

1.3.0. Identity as a Moderator

For people of color in general, ethnic identity, "one's identity or sense of self as a member of an ethnic group" (Phinney, 2003), has been proposed as a buffer for any adverse

health effects, either directly or resulting from discrimination (Liang & Fassinger, 2008; Phinney, 2003). However, the literature on mental health outcomes is equivocal. For example, Fil-Ams with high ethnic identity reported greater psychological adjustment when experiencing high amounts of perceived discrimination (Mossakowski, 2003). Such findings support a stress-buffering hypothesis, which proposes that ethnic identity promotes resilience in the face of discrimination by providing a stable sense of identity and psychological resources, and putting one in touch with community resources and values (e.g., Yip, Gee, & Takeuchi, 2008). For example, alcohol use may be monitored and discouraged by other ethnic group members (Chae et al., 2008). Other findings suggest that ethnic identity may actually exacerbate effects of discrimination (e.g., Lee, 2005; Yoo & Lee, 2009). Meanwhile, exacerbating hypotheses propose that individuals may be more attuned to cues that are relevant for an important part of their identity, which may be discrimination experiences for those high in ethnic identity, and in turn may take greater offense or react more negatively (as reviewed in Yip, Gee, & Takeuchi, 2008).

In terms of alcohol use, buffering effects have been observed. For example, Asian Americans with low ethnic identity had a stronger association between discrimination and alcohol dependence (Chae et al., 2008). Similar relationships have yet to be examined among Fil-Ams specifically.

1.3.1. Coping and Ethnic Identity

Examining coping and ethnic identity concurrently helps to better understand their respective roles in the relationship between discrimination and health outcomes. In buffering hypotheses, it is proposed that ethnic identity protects from discrimination because it puts people in touch with coping resources. Some studies have tested this directly, by examining the association of ethnic identity and coping responses. Ethnic identity has been associated with use

of active forms of coping, in response to discrimination (Phinney & Chavira, 1995; Umana-Taylor, Vargas-Chanes, Garcia, & Gonzales-Backen, 2008), while lower ethnic identity has been associated with passive or avoidant forms of coping such as substance use (Ojeda & Liang, 2014).

In examining coping and ethnic identity concurrently with discrimination and mental health outcomes, there has been variation in terms of the data collection and analytic methods used. Results from moderator analyses in a study of Southeast Asian refugees in Canada (Noh, Beiser, Kaspar, & Hou, 1999) suggested that the combination of use of forbearance coping and high ethnic identity had the strongest protective effects on the association between discrimination and depressive symptoms. Similarly, conditional associations were found in a study of Asian American college students, whereby the efficacy of coping strategies depended on the level of discrimination and ethnic identity (Yoo & Lee, 2005). For example, greater use of problem solving coping, i.e. taking direct action against discrimination, along with higher levels of ethnic identity along were associated with less negative affect if under low discrimination. Under higher levels of discrimination however, they predicted more negative affect. The results of that particular study suggest that the effectiveness of certain coping strategies may depend on the level in which one is exposed to discrimination.

Although cultural orientation is not the same construct as ethnic identity, studies examining acculturation may nonetheless help to identify effective coping strategies. For Mexican origin adolescents (Brittian, Toomey, Gonzales, & Dumka, 2013), distraction coping, i.e. engaging in other activities to distract from a stressor, had a buffering effect on internalizing symptoms only for individuals who were lower in acculturation, i.e. less oriented to Anglo

culture. Meanwhile, seeking social support had a buffering effect on externalizing behavior but only for those lower in enculturation, i.e. less oriented to Mexican culture.

Studies examining racial identity models, a slightly different construct than ethnic identity, may also provide insight in understanding the roles of identity and coping strategies. One study examined situation-specific coping, whereby participants reported on a specific discrimination experience and their specific coping response (Forsyth & Carter, 2012). Individuals who were in the Internalization stage, i.e. when race and its meaning are integrated in to self-identity, and used empowered resistance coping, i.e. using community and legal resources to deal with the incident, reported better mental health outcomes overall.

Another study examining racial identity models and coping tested a moderated mediation model. Specifically, whether a mediated relation between discrimination, coping, and depressive symptoms varied by racial identity among African American adolescents (Seaton, Upton, Gilbert, & Volpe, 2014). Their results indicated that avoidant coping partially mediated the relation between perceived discrimination and depressive symptoms among youth with high levels of the minority/oppressive ideology. In other words, the mediated relationship was significant for youth who emphasize the similarities between African American experiences and those of other oppressed minority groups. Authors interpreted this as "preparation for bias" and feeling hopeless about race relations, which fosters use of avoidant coping strategies.

Although the methods varied, the studies reviewed in this section nonetheless help to provide clarity on the effectiveness of coping strategies in response to discrimination, and also provide a theoretical basis for the current project. Coping has been conceptualized as both a moderator and a mediator. The analytical approach depends on the goal of the researchers. If the goal is to understand the conditions for which a coping response and in turn ethnic identity may

buffer the effects of discrimination (when and for whom), as in the Yoo and Lee (2005) study, then a moderator analysis is most appropriate. If the goal is to understand how or why discrimination is related to an outcome variable, then a mediator analysis is most important (Baron & Kenny, 1986). This would assume that a coping response is elicited by a discriminatory event, or perhaps it used more when exposed to chronic discrimination (Alvarez & Juang, 2010). When also examining ethnic identity, a moderated mediation model, as in the study by Seaton and colleagues (2014) study might be a useful approach. It could simultaneously examine: 1. why discrimination is related to health outcomes (through coping); 2. for whom (ethnic identity levels) and under what conditions (levels of discrimination) discrimination is associated with frequency of coping; and 3. for whom (ethnic identity levels) and under what conditions (frequency of coping strategy) in which specific coping strategies were associated with alcohol related problems

1.3.2 Group Identity

Another potential source in the variations in findings on ethnic identity is that the majority of studies have examined ethnic identity alone, not accounting for identification with multiple groups. National identity, for one, may represent another prominent group identity for people of color. Phinney and Ong (2007) stated, "for ethnic identity to be fully understood, it is best considered in relation to…their identity as part of their national culture" (p. 273). National identity represents identification with a broader and inclusive entity, and is a relatively independent dimension of group identity. The relationship between ethnic identity and national identity may vary across individuals, i.e. a strong national identity does not necessarily imply a strong ethnic background. Further, it has been suggested that the effects of ethnic identity may vary depending on one's national identity.

A study by Huynh, Devos, and Goldberg (2014) examined the co-occurring and interactive effects of ethnic and national identity on discrimination and emotional distress. National identity referred to how an individual identifies and feels a sense of belonging to the dominant White/European American culture. Distinct findings emerged depending on strength of ethnic and national identity. Notably, both a strong ethnic identity and a strong national identity, i.e. Dual Identity, had protective effects when individuals experienced high amounts of discrimination. The authors interpreted that identifying strongly with both groups represents having additional interpersonal resources available, and being able to embrace national identity without conflict with sense of ethnic identity.

1.3.3. Measuring Filipino American Identity

Assessing for multiple group identities may be particularly relevant for Fil-Ams, as defining a single group identity is difficult given the cultural, historical, and sociopolitical background of the Filipino people. Fil-Ams are categorized as "Asian." Yet, the culture of the Philippines is distinctly "Westernized" compared to other Asian countries due to a long history of colonization, first by Spain and then the U.S. Many individuals with Filipino ancestry have Spanish last names (Nadal, 2004). Additionally, over 80% of Filipinos are Roman Catholic, making the Philippines the only country in Asia that is primarily Catholic (Abe-Kim et al., 2004). U.S. colonization has also had profound influences on Philippine culture. For example, English is the second official language.

Due to these similarities to Western culture, it has been proposed that traditional models of acculturation, i.e. the process of adopting the norms and values of the dominant culture, which are often used to explain variations in drinking behavior among APIs may not apply for Fil-Ams (Nadal, 2000). For example, a Fil-Am identifying with Filipino culture that is highly influenced

by U.S. presence differs from a Chinese American identifying with traditional Chinese culture. Further, these cultural differences are often not acknowledged and Fil-Ams are assumed to have the same cultural values as other Asian Americans. Nonetheless, Fil-Ams may also affiliate closely with other ethnic groups, including Pan-Asian. They may also distance themselves from their ethnic group due to colonial mentality (Nadal, 2004).

A shortcoming of most cultural and ethnic identity models is that they are unidimensional (Chung, Kim, & Abreu, 2004). Nadal's Filipino American Identity Development Model (2004) acknowledges a multicultural context and the possibility of identifying with multiple groups. The dimensions of identity include the individual's attitudes and beliefs toward the self, Filipino Americans, Asian Americans, White or the dominant group, and other ethnic minorities. To date, no scale has been developed based on this model. Doing so would allow for assessing multiple group identities and accurately account for potential variations in group identity among Fil-Ams.

A measure that incorporates the experiences of Filipino Americans may help to more accurately assess the role of ethnic identity and other aspects of group identity in discrimination, coping, and alcohol use among Fil-Ams. Thus a secondary aim of this study was to develop a multidimensional measure of group identity for Filipino Americans, for use in meeting the final aim of the study: testing a moderated mediation model whereby group identity would moderate the mediated relationship of discrimination, coping, and alcohol-related problems.

1.4.0. Study Rationale

Many studies on Fil-Am health have relied on the FACES data set, which had a large sample of Filipino adults in California and Hawaii. The current study provides new data focusing on Fil-Ams and would be the first to comprehensively examine alcohol use in a national sample

of young adults. Fil-Ams experience higher levels of alcohol use and discrimination experiences compared to other APIs, but no potential mechanisms have been examined in studies with Fil-Ams. The potential roles of coping and group identity in the association between discrimination and alcohol use have also not been examined. Furthermore, existing measures of discrimination and group identity have not been tailored to the experiences of Fil-Ams. The current project seeks to address these gaps in the literature by developing measures of group identity and discrimination adapted specifically for Fil-Ams (*Aims 1-2*) and then by testing group as a moderator in the stress-coping process for discrimination (*Aims 3-4*). I proposed a moderated mediation model (Muller, Judd, & Yzerbyt, 2005); see Figure 1), whereby coping would mediate the relationship between discrimination and alcohol use (*H3b*). Group identity, in turn, would moderate the mediated relationship (*H4)*.

The majority of studies that have linked discrimination and alcohol use have examined dichotomous outcomes such as drinking initiation, engagement in binge drinking, or AUD diagnosis (e.g., Chae et al., 2008; Gee, Delva, & Takeuchi, 2007a; Kim & Spencer, 2011). Assessing other measures of alcohol use would lead to a more refined understanding of the relation between discrimination and alcohol use, in Fil-Ams and in other groups. As discussed, most studies focused on alcohol use in a general sample of adults. Few studies have focused on the young adult age bracket, which tend to be at highest risk for alcohol problems. It is important then to examine how discrimination is associated with problematic drinking in this group. Furthermore, it is important to identify potential causal mechanisms.

1.5.0 Specific Aims

The project examined a mediated relationship between discrimination, coping, and alcohol-related problems; and tested group identity as a moderator. The specific aims were to:

Aim 1: Develop measures of group identity and discrimination experiences that are culturally relevant for Fil-Ams. Focus groups and individual interview were conducted to gather preliminary information and feedback from items on existing measures. The resulting qualitative data was used to select and develop items for the measures.

Aim 2: Pilot test the new measures to establish reliability and validity.

Aim 3: Assess relationships among discrimination (frequency of exposure), coping (coping styles), and problematic alcohol use (alcohol-related problems)

Hypothesis 3a: Greater exposure to discrimination will be associated with increased alcohol-related problems.

Hypothesis 3b: Coping will mediate the relationship between discrimination and alcohol use, such that experiencing discrimination is associated with increased utilization of specific coping strategies, which in turn are associated with increased drinking problems.

Aim 4: Assess the role of group identity as a potential moderator in the relationship between discrimination, coping, and alcohol use.

Hypothesis 4: I expected that a moderated-mediation relationship (Muller et al., 2005) would be observed. While designing the study, I expected that ethnic identity would moderate the relationship between discrimination and coping, and/or the relationship between coping and drinking problems, such that the mediating path between discrimination and alcohol use through coping will be weaker for those higher in ethnic identity. Following an updated review of the literature, I hypothesized that such an effect would also be conditional on other group identities.

Specifically, I expected that having a dual integrated identity, i.e. greater identification with both ethnic (i.e. Filipino) and national (American) group, such that the mediating path between discrimination and alcohol-problems through coping would be weaker for these individuals.

2.0.0. Methods of Procedure

Overview: The research project included 2 phases. The overall goal of Study 1 was to develop and test new measures of group identity and ethnic discrimination/microaggressions designed specifically for Filipin@s/Fil-Ams (*Aims 1-2*). Items were developed based on qualitative data from interviews and focus group, research literature and existing measures, and expert and community feedback. The measures were then tested for validity in a national sample via online survey. The final measures were utilized in Study 2, where Fil-Am young adults completed a comprehensive online survey on alcohol use and related problems, social/cultural experiences, and other psychosocial factors in health (*Aims 3-4*). The University's Human Subjects Committee approved all protocols, with no adverse events being reported

Community Consultation. The original design of the project was informed by principles of community-based participatory research (CBPR; Minkler & Wallerstein, 2003) which involves collaboration with community partners to give underserved communities a voice in the research process and allow for research that is mutually beneficial to researchers and the community. Community consultants were identified during the initial phases of the project. I intended to form a community advisory board (CAB) that would meet on a regular basis throughout the study. Given that this was a dissertation study that received funding for alcohol research, the CAB would serve as "advisors" rather than "partners" whom would set research agenda, as in true CBPR. In an advisory role, a CAB typically provides information, guidance, or

suggestions, however the research team may choose to accept or reject the advisors' input (Newman, Andrews, & Magwood, 2011).

Key informants were identified from several Fil-Am community organizations and were invited to an initial meeting held at a community center in the Rainier Valley district area of Seattle, WA an area with an established Filipino community. The CAB provided feedback on the research design and suggested modifications plus potential sources of recruitment, as CABs are often used to facilitates access to and from community (Roosa et al., 2008). However, attendance and response rates were low for three follow-up meetings. There are a number of potential reasons for this. From a practical standpoint, many cited time and travel as a barrier to attending meetings. Furthermore, identifying stakeholders was difficult given the broad scope of the study population, i.e. anyone identifying as Filipino in the United States (not delineated by space) as opposed to a community in a specific location (e.g., reservations, hospitals). Finally, beneficence for the community members was not clearly established (Wallerstein & Duran, 2006). In other words, it was not clear how the research could directly benefit their interests, or how they would benefit from attending. As a result, formal CAB meetings did not take place following the initial phases.

Nonetheless, I continued to work in consultation with community members through individual meetings and e-mail correspondence. Those invited to the CAB as well as other interested community members continued to receive periodic updates about the project. Throughout the measure development phase of the study of the study, they provided feedback on study materials, gave additional input on current and historical experiences of the Filipino American community, and additional concerns that could be addressed through future research. Finally, I will invite community members to review the current findings before proceeding with

any scientific publications, to ensure that they benefit both the researcher and community (Wallerstein & Duran, 2006).

3.0.0 Study 1: Measure Development/Pilot Testing (Aims 1-2)

Study 1 resulted in the development of two psychometric scales: Filipin@ American Microaggressions Scale (FAMS), and the Filipin@ American Identity Measure (Fil-AmIM)). The common methods used to design and evaluate all 3 measures including data analytic procedures, will be presented in the section below. The following will then be presented separately for each measure: construct definition and background literature, item development, results from statistical analyses and discussion.

3.1.0 Study 1 Common Methods

3.1.1 Participants and Recruitment

For all phases of the research, convenience and snowball sampling techniques were used. Previous research with underrepresented communities has successfully employed these sampling techniques (Petersen & Valdez, 2005; van Meter, 1990; Yoo, Gee, Lowthrop, & Robertson, 2009). Primarily, targeted advertisements via the Internet were utilized to recruit potential participants. A growing body of literature has used the Internet, particularly social networking sites, to recruit "hidden" populations with relatively high response rates (Gosling, Vazire, Srivastava, & John, 2004; Kaysen, Davis, & Kilmer, 2011; Koch & Emrey, 2001). Furthermore, approximately 90% of Asian Americans (most within the targeted age range) use the Internet (Intertrend Communications, 2007; Spooner, 2001). Announcements were placed on newsletters and listservs with primarily Filipino American audiences. Furthermore, targeted advertising via

Facebook.com allowed for delivering advertisements only to specific users, i.e. based on location, age range, ethnic affinity, and interests. Flyers and electronic correspondence were also circulated within partnered organizations and Filipino American owned businesses. Finally, study participants were encouraged to pass on information about the study to other potential participants.

Qualitative Focus Group Interviews. Recruitment for the focus groups and interviews in Study 1 were limited to residents in western Washington. In all, 8 focus groups ($N = 20$) and 6 individual interviews were conducted from November 2012 to January 2013 and April 2014 to August 2014, respectively.

Survey 1 - Online Pilot Study. The same recruitment strategies were used as the qualitative phase, except that there was no geographic restriction since data was collected via the Internet. All paid advertisements were targeted towards individuals in the specified age group, identifying as Asian ethnic affinity, and with interests in the Filipino American community (targeting included interests in "Filipino", "Filipino American", "Filipino food," Filipino language," among other terms). The majority of participants were recruited via Facebook (either paid advertising or shared posts; 38.2%), e-mail announcements circulated to Filipino American student and community organizations (28.1%), and snowball sampling (17.4%), while the remainder were recruited via other means such as study flyers, Twitter, and CraigsList. Recruitment and screening took place between February 2015 and May 2015.

3.1.2 Screening and Procedures

Screening. For both the in-person and online phases, interested individuals were provided a link to a brief online screening hosted on DatStat Illume, a secure online data collection and management program. As an alternative, potential participants had the option to

complete screening by phone; less than 10 individuals utilized this option. Individuals who met the following criteria were invited to participate: 1) identify as Filipino American full or in part; 2) be between ages 18-30; 3) be proficient in English; and 4) be able to attend one of the proposed times. Potential participants were also asked basic demographic questions (e.g., gender, SES) to ensure a representative sample.

Despite the targeted recruitment strategies, there was the possibility that individuals could provide false information, i.e. did not actually meet study criteria, since the study took place entirely online. The following steps were taken to minimize invalid data from screening respondents: (1) Validity check questions were embedded into the online screening, asking participants a forced response question (e.g., "select this response from the option below"), a basic math question, and a question about Philippines civics; (2) Online screening data was examined by the research team, prior to sending invitations to participate in the study; (3) A random set of eligible individuals were required to confirm their information via telephone prior to receiving the main survey; and (4) Participants were paid by check to minimize use of false names, which was stated during the screening. Because individuals could potentially complete the screening more than once, those who repeated the screening (i.e. changing responses until meeting eligibility criteria) did not receive an invitation to participate. Potential participants whom did not respond to verifications calls were also omitted from the study.

Focus Group and Interview Procedures. Focus groups and interviews were conducted at the UW research site. Focus group discussions included: a semi-structured discussion based on guiding questions; a commentary on and assessment of items from existing measures; discussion of relevant issues brought up in previous groups; and gathering ideas from participants for relevant topics already covered. Individual interviews took place after development of the initial

item pool, and included review and feedback of items in developments. All interviews and focus groups were audio recorded for transcription and coding. Participants were compensated $30.

Survey 1 Online Pilot Study. Participants who screened as eligible were sent an email invitation that contained a hyperlink to the study survey, plus a separate e-mail containing their unique personal identification number (PIN). Upon accessing the website, participants entered their PIN to log in to the study surveys. After logging in, participants were presented with the study consent form and given option to accept or decline participation. Those who provided consent were administered a battery of survey measures via DatStat Illume (see measures section below).

The survey battery was pilot tested to be completed in approximately 20 minutes. Nonetheless, participants could complete the survey at their convenience and progress was saved in case they needed to log off and continue at a different time. Participants who either did not respond to the initial invitation or started but did not complete the survey received up to 4 email reminders and 1 reminder call, consistent with best practice for web survey research (Dillman, Smyth, & Christian, 2014; Kypri, Stephenson, & Langley, 2004), and a study-wide deadline to complete the survey was enforced. Participants were compensated $10 and were entered in to a prize drawing for gift cards from Amazon (1 of 4) and iTunes (1 of 10).

3.1.3 Sample Demographics

Survey 1 – Online Pilot Study. A total of 610 screenings were completed. Of these, 490 met eligibility criteria and were invited to participate in the study. Of the individuals invited to participate in the study, 4 declined consent and 3 requested to be removed from the study during reminder correspondence. An additional 4 participants were partial completers, meaning they provided consent and completed the items of interest for the measure development study, but did

not complete the entire survey battery. The remaining individuals were non-responders. In all, a total of 386 participants completed the survey battery and received compensation.

Data from 390 cases were used in the present analyses. On average participants were 23.20 years of age and 62.30% were female. Multi-ethnic individuals constituted 29.70% of the sample, approximately representative of Filipino American national demographics (U.S. Census Bureau, 2012). In terms of generational status, 65.3% of the sample was 2nd generation and above (i.e. born in the U.S.), while 19.2% were 1st generation (i.e., born in the Philippines or other country outside of U.S., immigrated after age 13) and 16.4% were 1.5 generation (i.e., born outside of U.S., immigrated prior to age 13). Although over 50% of Filipinos in the U.S. identify are foreign-born (U.S. Census Bureau, 2014), a generational breakdown is not available for Fil-Ams in this age group. The length of residence for 1st generation and 1.5 generation participants ranged from 0 to 27 years (M = 10.69, SD = 7.59*)*. Using regions designated by the U.S. Census Bureau, participants resided primarily in the Western region of the United States (60.4%), 14.3% in the northeast, 13.4% in the Midwest, 9.4% in the South, while 2.5% declined to disclose state of residence.

3.1.4 Measures

The following measures were administered to participants in the online survey. They included both the newly designed measures and existing measures to test for concurrent validity. Development of the FAMS and FilAmIM are described in detail in their respective sections.

Demographics. A demographics questionnaire asked participants to identify their ethnic background(s), birthplace/generational status, length of time in the U.S. (if applicable), birth sex, gender identity, sexual orientation, and education level.

Filipin@ American Microaggressions Scale, Pilot Version (FAMS-Pilot): Developed during this study, the FAMS-Pilot consisted of 31 items that identified microaggressions commonly experienced by Filipino Americans. Participants were asked to rate the frequency that they experienced each microaggression in their lifetime, using the following scale: 0 = Never/Does Not Apply to Me, 1 = Less Than Once a Year, 2 = A Few Times a Year, 3 = About Once a Month, 4 = A Few Times a Month, 5 = Once a Week or More.

Filipin@ American Identity Measure, Pilot Version (FilAmIM-Pilot). The FilAmIM-Pilot, developed in this study, is a multidimensional measure assessing for the degree that one identifies as and/or associates with the following social groups: Filipino identity (FilAmIM-FI; ethnic identity, 27 items), Filipino-American identity (FilAmIM-FAI; cultural/generational identity, 18 items), American identity (FilAmIM-AI; national identity, 16 items), Pan-Asian identity (FilAmIM-PI pan-ethnic/racial identity, 15 items), Person of Color/Allied identity (FilAmIM-POC; status identity, 12 items). Each scale is scored independently, representing orthogonal dimensions of group identity. All items are scored on 5-point Likert scale ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree)*. A response of "N/A" was also an option, and were treated as missing.

RaLES-B. To test for concurrent validity of the FAMS, the brief version of the Racism and Life Experiences Scale (RaLES-B; Utsey, 1998) was also administered to participants. The RaLES-B consists of nine items on perceptions of racism and race-related stress. The scale measures the degree an individual believes racism has impacted one's own experience, including experiences of discrimination or prejudice, and the overall experiences of their racial group. It includes two subscales and one overall score: Racism-Group score (perceptions of racism toward the individual's ethnic/racial group), Racism-Self score (personal experiences of racism), and

total Racism and Life Experiences score. The RaLES-B demonstrated concurrent validity with other racism measures and reliabilities have ranged from .83 to .93 (Nadal, 2011; Utsey & Ponterotto, 1996).

MEIM. The Multigroup Ethnic Identity Measure (Phinney, 1992) was included to test concurrent validity for the FilAmIM. It is the most widely used measure of ethnic identity, containing 12-items with two subscales: exploration and commitment. Participants rate the degree to which they identify with their ethnic group on a four-point scale. Items include: "I have a lot of pride in my ethnic group" and "I understand pretty well what my ethnic group means to me." A higher overall score on the MEIM represents a higher level of ethnic identity. Reliability has been reported at .81.

AAMAS. The AAMAS Asian American Multidimensional Scale of Acculturation (Chung et al., 2004) is a 45-item scale measuring cultural behavior, identity, and knowledge in relation to three reference groups: Culture of Origin (AAMAS-CO), Asian American (AAMAS-AA), and European American (AAMAS-EA). Participants rate the degree of acculturation/enculturation on a 6-point scale, with 15 parallel items across all 3 groups. Reliability estimated from .76 to .91 and demonstrated evidence for convergent and discriminant validity. The multidimensional design of the AAMAS allowed for testing of concurrent validity of the FilAmIM, specifically the scales on Filipino, American, and Pan-Asian identity.

3.2.0 Qualitative/Item Development

Audio recordings were transcribed and examined by the research team, which consisted of 1 Filipino American psychology graduate student, 3 Filipino American undergraduate research assistants, and 2 White/European American undergraduate research assistants. The data

collection and coding process was informed by a phenomenology approach (Smith, Flowers, & Larkin, 2009), which is most appropriate when attempting to describe an experience rather than speculating a causal explanation (Starks & Trinidad, 2007). A codebook was developed based on existing literature on microaggressions and ethnic identity, and was modified throughout the qualitative/item development phase. Relevant text/quotations were highlighted and used to inform the writing of specific measure items.

The final measures were developed through an iterative process. Initial items were developed based on qualitative data from focus groups, literature review, and existing measures. Items were grouped based on the theoretical constructs to create conceptually relevant factors. The item set was then revised based on feedback gathered from individual interviews, community consultants, and colleagues. Interviewees reviewed the items for construct clarity, user experience including grammatical accuracy and clarity of instructions, and gave feedback on whether measure items were representative of their experience – including item revision or writing of additional items. The remaining items were pilot tested for the purposes of item reduction and factor analysis, using the procedures outlined below.

3.3.0 Data Analytic Plan

Statistical Analyses examined construct validity, reliability, and concurrent validity separately for the each measures. The sample was randomly split in half for analyses. Each group was relatively equivalent on demographic factors including gender, generational status, and mixed race status. Exploratory factor analysis (EFA) was applied to one half (n = 195), while confirmatory factor analysis (CFA) was applied on the other (n = 195). Analyses were

conducted using SPSS version 21, with AMOS version 21 (Arbuckle, 2012) being used to conduct the CFAs.

Prior to conducting analyses, data were screened for missingness and tested for assumptions of normality. Items included in analysis had low missingness (<5%), which may have been due to unintentionally skipping an item or not knowing how to respond, e.g. provided an "N/A" response. Missing data was expected to be inconsequential (Schafer, 1999), and all missing values were mean imputed. Some items were removed from analyses after examining patterns of missing data. Further discussion of these items can be found in the respective section of each measure. Meanwhile, more than half the items violated assumptions of normality and analyses were conducted accordingly.

3.3.1 Exploratory Factor Analysis

The purpose of the EFAs was to examine the underlying factor structure and reduce the number of items for each newly developed scale. For the FAMS, a principal components analysis (PCA) was applied. A PCA is used for the purposes of data reduction, i.e. reduce a large number of variables to a smaller number of composite variables (Brown, 2015). Since the items assessed for frequency of microaggressions, a PCA is appropriate for the purposes creating a composite score. Orthogonal rotation was used since I did not expect the components to be correlated, as was the case with the FAMS.

For all scales of the FilAmIM, factors were extracted via principal axis factoring with promax rotation. This estimation method may be preferred when non-normality is evident in observed items (Brown, 2015), as was the case with the items in the current study.

For each set of analyses, items were selected based on recommendations for exploratory and confirmatory analyses (Guadagnoli & Velicer, 1988; McDonald, 1985; Tabachnick & Fidell,

2001). The following criteria were used: (1) A factor would need to account for a minimum of 10% of the total variance, usually corresponding to eigenvalues greater than or equal to 1; (2) items needed factor loadings of .4 or greater on a single factor; (3) items could not have high cross loading, i.e. have a factor a loading of .4 or greater on 2 or more factors; (4) items needed to be conceptually related to other items within the factor; and (5) factors needed to contain at least 3 items to ensure reliable subscales.

3.3.2 Confirmatory Factor Analysis

The CFAs further examined the construct validity of each scale, by attempting to replicate the factor structures obtained in the EFAs and test for model fit in a separate sample. The factor solutions were specified in a confirmatory factor analytic model (measurement model), which permits a more refined examination of the factor structure by taking into account measurement error. Items that did not have significant paths between the observed measure and their latent constructs (factors) or had high residual covariances with items across factors, therefore adversely impacting model fit, were removed.

3.3.3 Reliability and concurrent validity

Based on results of the CFA, reliability coefficients were estimated to determine the internal consistency of each scale/subscale. To test for concurrent validity of the FAMS-1, correlation coefficients were calculated between the FAMS-1 scores and the scores obtained from the RaLES-B. Correlation analyses were also conducted between the FAWGS-1 scores and scores on the AAMAS and MEIM, since we hypothesized that experiences of within-group marginalization would be associated with level of acculturation or enculturation, and ethnic identity. Finally, the scales on the FilAmIM were examined in relation to the AAMAS and MEIM. We hypothesized that: (1) the Filipino (ethnic) identity scale would be associated with

the AAMAS-CO enculturation scale and MEIM; (2) the American (national) identity scale would be associated with the AAMAS-EO acculturation scale; and (3) the Asian (pan-ethnic/racial) identity scale would be associated AAMAS-AA Asian American cultural orientation scale. Since there were no equivalent measures for the Filipino-American and People of Color identity scales, correlations were viewed as exploratory.

4.0.0. FAMS Item Development, Results, and Discussion

4.1.0 Background Literature and Construct Definition

4.1.1 Measuring Experiences With Racism

There has been a wide range of studies examining experiences with various forms of racism amongst communities of color in the United States. The primary goal of this research area has been to assess how exposure to racism increases risk for negative health outcomes. Racism is defined by Clark, Anderson, Clark, and Williams (1999) as, "beliefs, attitudes, institutional arrangements, and acts that tend to denigrate individuals or groups because of phenotypic characteristics or ethnic group affiliation." According to Harrell (2000), there are four contexts in which racism may occur: interpersonal, collective, cultural-symbolic, and sociopolitical. Research has primarily focused on the interpersonal context, which involves "interactions with other people, nonverbal behavior, and behavioral statements" (Harrell, 2000, p. 43). More specifically, the focus has been on perceived discrimination, i.e. the extent to which an individual feels he or she has experienced unfair treatment.

Studies have varied in their operational definition and measurement of discrimination experiences. The operational definition of perceived discrimination typically takes the form of chronic, acute, recent, or lifetime discrimination (Pascoe & Smart Richman, 2009). Some

measures frame questions in terms of "unfair treatment" or "everyday discrimination" in which ethnicity and race are less salient (e.g., Harrell, Merchant, & Young, 1997; Williams, Yu, Jackson, & Anderson, 1997). For example, participants are asked the frequency with which they experience "prejudice and discrimination from others," but are not asked if they experienced it because of race. Racism is less overt when assessed in this way, some researchers have used the term "everyday discrimination" and "microaggressions" synonymously (e.g., Alvarez & Juang, 2010).

Creating or modifying scales so they are specific to an ethnic group may help ensure that group experiences with discrimination are adequately represented. A shortcoming of using most existing measures is that a number were developed with African American populations and/or were not tested for validity and reliability across groups (e.g., Gee et al., 2006; Gee, Delva, & Takeuchi, 2007a; Gee, Spencer, Chen, & Takeuchi, 2007b; Gee, Spencer, Chen, Yip, & Takeuchi, 2007c; Lee, 2003; 2005). Two scales have been developed to assess Asian Americans' experience with racism, including the Asian American Racism-Related Stress Inventory (AARRSI; Liang, Li, & Kim, 2004) and Subtle and Blatant Racism for Asian American scale (The SABR-A^2; Yoo, Steger, & Lee, 2010). The AARRSI measures stress associated with Asian-specific stereotypes (e.g., perpetual foreigner), forms of everyday discrimination, and more institutional collective experiences (e.g. told to be more assertive by teachers or authorities). A factor analysis has been conducted to test the factor structure across different Asian groups. Notably, there was a poor model fit for the Fil-Am sample, suggesting differences in experience and measurement structure of race-related stress (Miller, Kim, Chen, & Alvarez, 2012). The SABR-A^2 separately measures subtle forms of racism, i.e. implicit stereotypes such as being

ignored for service, and blatant forms of racism, i.e., explicit bias such as derogatory name calling. To date, no published studies have used the SABR-A^2 with the Fil-Am population.

4.1.2 Measuring Microaggressions

In examining the health effects of racism, attention has shifted towards more modern, subtle forms of racism. Microaggressions are "brief and commonplace daily verbal, behavioral and environmental indignities, whether intentional or unintentional, that communicate hostile, derogatory or negative racial slights and insults that potentially have harmful or unpleasant psychological impact on the target person or group" (Sue et al., 2007). A number of qualitative studies have examined experiences with racial and ethnic microaggressions in-depth. In general, the cumulative nature of microaggressions is assumed to have detrimental effects on health. However, less research has been completed on specific forms of microaggressions, including those that are group-specific, and how these may have differential impacts on those whom are targeted (see Wong et al., 2013 for review).

Two scales have typically been used in quantitative studies on microaggressions. Daily Life Experiences (DLE) measure from the Racism and Life Experiences Scale (Harrell, 2000) contains 20 items measuring the frequency one has been exposed to everyday microaggressions, such as "being treated disrespectfully" or being called "exotic." However, there no subscales scales and its development preceded the number of qualitative studies that established a taxonomy of racial and ethnic microaggressions, e.g. environmental microaggressions, microassaults, or invalidation of racial reality (Sue et al., 2007). In response, the Racial and Ethnic Microaggressions Scale (REMS; (Nadal, 2011) was developed to assess a broader range of microaggressions that ethnic minority/people of color may experience in their everyday lives. Domains of the measure include: assumptions of inferiority, second class citizen/assumption of

criminality (e.g. racial profiling), microinvalidations (e.g. being told not to complain about race), exoticization/assumptions of similarity (e.g. being objectified because of race), environmental microaggressions (e.g. having few people of the same represented in media), and workplace and school microaggressions (e.g. being treated differently than White co-workers). Although the REMS captured the taxonomy of microaggressions commonly experienced by ethnic minorities/people of color in general, it has yet to be determined whether it adequately assesses group-specific experiences.

4.1.3 Microaggressions and the Filipino American Experience.

Qualitatively, microaggressions and other forms of discrimination towards Fil-Ams are complex and multilayered; and may not be fully captured by any existing measures. In addition to its colonial history, Filipino Americans were perceived as savage or uneducated. The most infamous example was the "living exhibit" at the 1904 World's Fair displaying peoples whom were considered primitive by attendees, including Igorot villagers. Additionally, laborers in the early 20th century were also targets of race-based violence and an Anti-Miscegenation law was passed in response to sentiments that Filipino men attracted White women (e.g., Fermin, 2004; Ignacio, 2004). More contemporary examples have included sentiments that Filipinos hold too many jobs within the medical workforce, underrepresentation of Filipinos in various field, or perceptions that training and education from the Philippines is of inferior quality (Nadal, 2009).

Because Filipinos are considered an Asian group and because of cultural similarities, Fil-Ams are prone to experiencing stereotypes attached to Asian Americans in general. The most common is the assumption that Asian Americans are a "model minority," a group that is successful and lacks social problems. This perception may not only create resentment from other ethnic groups, but also ignores the issues that actually do face the community (Takaki, 1998).

Sue and colleagues (2009) assessed the microaggressions and stereotypes reported by Asian Americans. Themes that emerged included: alien in one's own land (i.e., the stereotype "perpetual foreigner" despite being born and/or raised within the United States), ascription of intelligence, exoticization of Asian American women, invalidation of interethnic differences (i.e. perception that all Asians are the same), pathologizing cultural values/communication styles (i.e. perception that cultural values that are different from mainstream American are inferior), second class citizenship (i.e. receiving less than preferential treatment), and invisibility (i.e. being overlooked, particularly in discussions of race).

At the same time however, Fil-Ams report feeling marginalized within the Asian American community. Stereotypes within the community portray Fil-Ams as being inferior or uncultured compared to other Asians. These perceptions may be held within and outside of the Asian American communities. Fil-Ams have been more likely to be treated as intellectually inferior or criminal compared to Chinese Americans (Nadal, 2009). In focusing only on Fil-Ams, one qualitative study examined the experience of racial microaggressions among Fil-Ams specifically (Nadal et al., 2012). Among the common themes were: treated like a second-class citizen (i.e. differential or substandard treatment), pathologizing cultural beliefs and practices, assuming deviant behavior (e.g. assuming Fil-Ams are criminal), assuming inferior status or intelligence (e.g. perceptions that Philippines-trained professionals are of lower quality), de-masculinization of Filipino men and exoticization of Filipino women. Similarly, another qualitative study assessed discrimination experiences of 1st and 2nd generation Fil-Ams in Florida (Tuason et al., 2007). The majority of participants reported having their ethnicity mistaken for other Asian groups. Second generation participants also reported experiences similar to the perpetual foreigner stereotype as well as assumptions of criminality and being poor.

4.2.0 Scale Development

The purpose of this first study was to develop and test the Filipin@ American Microaggressions Scale (FAMS), a quantitative scale that would measure the extent that an individual is exposed to microaggressions commonly experienced by Fil-Ams. The FAMS is not intended to replace general microaggressions or discrimination measures. Rather, it is intended to supplement these measures, in order to more comprehensively assess experiences of racism and microaggressions that may not be measured otherwise.

From qualitative data, several key findings emerged to inform measure development. Focus group participants reported individual experiences of microaggressions and group stereotypes similar to that reported in Nadal and colleagues' (2012) study on microaggressions toward Filipino Americans. These included: Misidentification (i.e., one's race or ethnicity is completely mistaken, potentially exposing them to forms of discrimination typically directed at other groups), Pathologized Culture (i.e., the notion that the values and behaviors of dominant culture are ideal while those of Filipino culture are pathologized), Cultural Expert (i.e., the assumption that one is a representative of all Filipino culture, even if growing up in the United States.), Inferiority/3rd World (i.e. the assumption that one is less intelligent or of lower social class by virtue of being Filipino), Assumptions of Filipino stereotypes (e.g. perceptions that Filipinos are passive and will be hospitable), Minimizing Differences With Other Asian Groups, Exclusion from the Asian community as a whole, Exoticization (i.e. objectified because of Filipino background), Positive Stereotypes/Model Minority (e.g. expectations about work or school performance), and Perpetual Foreigner.

A prominent theme in the qualitative data was "invisibility," based on past observations that Filipino Americans are "forgotten Asian Americans" (Cordova, 1983). Individuals reported

instances where others told them they had not heard of Filipinos, assumed they were part of another Asian or sometimes Latino ethnic group, or were mistakenly identified based on their appearance. One first generation participant highlighted experiencing that others had little exposure to the Filipinos or the Philippines and misconceptions of life in the Philippines:

> "People would be like, 'your English is so good.' …People don't realize we also have education. A lot of people think that Filipinos still live in grass huts or something..."

Items were written concurrently with transcription of focus groups. Additionally, items were developed based on the taxonomy of microaggressions from Sue and colleagues' (2009) qualitative study on Asian American microaggressions and the aforementioned study by Nadal and colleagues (2012). Items were also adapted from existing measures, including General Ethnic Discrimination Scale (GED; Landrine, Klonoff, Corral, Fernandez, & Roesch, 2006), the Racial and Life Experiences Scale (RALES; Harrell et al., 1997), the Asian American Racism Related-Stress Inventory (AARRSI; Liang et al., 2004), and the Racial and Ethnic Microaggressions Scale (REMS; Nadal, 2011). Items were developed for each taxonomy/category of microaggressions outlined above, or were adapted directly from focus group transcripts.

The measure was developed with the intention that it could be administered to anyone with a Filipin@ ethnic background, living in the United States, regardless of length of stay in the U.S., gender, mixed race status, or native language. Nonetheless, some items may be less applicable towards certain individuals than others (e.g. gender stereotypes). The measure construct was the frequency of exposure to microaggressions and discriminatory events based on stereotypes and perceptions of Filipino/Filipino American people.

An initial pool of 132 items was developed and refined for wording purposes. Items were then examined to determine if they fit the definition of the measure construct. Because the scale measured frequency of events, a decision was made to only include interpersonal microaggressions that reflected stereotypes, perceptions, and attitudes toward Fil-Ams. Some items were removed when it was determined that they assessed for environmental microaggressions or could only assess lifetime events (e.g. not having other Filipino Americans in school while growing up) or internalized feelings about race or discrimination (e.g. I feel pressured in my workplace because I am the only Filipino). Some were judged as being too specific to a subgroup, e.g. only applicable to specific generation status or gender, and were either reworded or discarded.

After review by colleagues and community consultants, 70 items were presented to interviewees, who shared their responses to items and offered further suggestions for revision. Following final revision, 31 items were maintained for pilot testing. Items were grouped by the following subscales, which represented broader themes on the basis for microaggressions: invisibility, pathologized culture, assumption of universal Filipino experience, assumptions of inferiority/treated as 3rd world, assumption of stereotypes, Pan-Asian stereotypes, Asian hierarchy (perceived as inferior to other Asians), and miscellaneous/general microaggressions.

4.3.0 Results

4.3.1 Factor Structure

One partial completer did not complete any FAMS items, i.e. stopped the survey battery before the FAMS could be administered. Therefore, 194 cases were included in the EFA sample. The principal components analysis met assumptions for sampling adequacy. The Keiser-Meyer-

Olkin (KMO) coefficient was .81, while Bartlett's Test of Sphericity yielded a χ^2 of 1084.44 (df = 171 , $p < .001$).

Using the criteria outlined above and examination of the scree plot, three- and four-component solutions were explored using varimax and promax rotation. Of these, the three-component solution with varimax rotation was found to be the most interpretable. The three-component solution accounted for 45.82% of total variance of the items. With this solution, 19 of the original 31 items were retained to represent the three components. According to extraction sums of squares loadings, the three components accounted for 26.41%, 9.34%, and 8.87% of the variance before rotation, respectively. The three components and their respective items, rotated component loadings, communality estimates, means, and standard deviations are presented in Table 1.

Component 1 was labeled Assumptions of Similarity/Positive Stereotypes, which contained items regarding exoticization, invisibility of Filipino Americans, and assumed similarities or stereotypes of Filipinos or Asian Americans as a whole. These items generally reflected positive-valence stereotypes such as expectations about school performance or being involved in nursing or medical careers. This component contained 8 items and accounted for 16.57% of the variance, after rotation.

Component 2 was labeled Assumed Inferiority/Negative Stereotypes, which contained items on stereotypes that Filipinos are uneducated, savage, or not "worthy" of being grouped with other Asians. It also contained stereotypes on the sexuality of Filipino men and women. This component contained 7 items and accounted for 16.32% of the total variance, after rotation.

Component 3 was labeled Perpetual Foreigner, which is a common stereotype amongst Asian Americans and other immigrant groups even those born in the U.S. It contained items on

expectations about language ability or circumstances for being in the U.S. This component contained 4 items and accounted for 12.93% of the total variance, after rotation.

4.3.2 Confirmatory Factor Analysis

The 19-item, 3 factor structure was then tested via confirmatory factor analysis in the second sample of participants, with the 3 factors covarying with one another. The chi-square statistic was significant ($\lambda^2 = 433.84$, $df = 149$, $p < .01$), which represents poor model fit. However, this is not unusual given that the chi-square statistic tests the exact-fit hypothesis that the model and population covariance are equal, which is very stringent (Brown, 2015). When examining other fit indices, CFI = .84 and RMSEA =.10, indicating unacceptable model fit according to Hu and Bentler (1999). Only the SRMR of .07 suggested good model fit.

In order to improve model fit, the standardized residual matrix was examined to identify potentially problematic items (McDonald, 1999). Two items had significant residual covariance with several other items. As a result, Item 1 was removed from Factor 1 ("Someone expected me to do well in school because I am Asian") and Item 12 was removed from Factor 2 ("Someone mistook my ethnicity for a non-Asian or Pacific Islander group"). Modification indices were also examined, and error variances were allowed to covary if between items on the same factor. The new 17 item, 3 factor model resulted in improved model fit (SRMR = .05, CFI = .95, RSMEA = .06).

Finally, in order to support use of a total scale score, the model was re-specified to include three first-order factors (Negative Stereotypes, Positive Stereotypes, and Perpetual Foreigner) to represent subscales and a second-order factor representing a total score. The model fit was nearly identical to the three factor model ($\lambda^2 = 433.84$, $df = 149$, $p < .01$; SRMR = .05, CFI = .95, RSMEA = .06), suggesting that it is reasonable to use a total scale score.

4.3.3 Recoding of Scores: Checklist Scoring

Upon examining the descriptive statistics of each item, the majority of the sample responded that microaggressions were either never happening (0) or happened less than once a year (1). Due to the lack of variance, I recoded the data to make a checklist version of the scale, titled the FAMS-CL. Similar procedures were taken during the development of other microaggressions measures (Nadal, 2011). Participants who did not indicate that a specific microaggression occurred at least a few times a year (i.e., less than 2), were recoded as 0[1], and those that did (i.e. 2 or greater) were recoded as 1. This version would measure the total number of different types of microaggressions an individual has experienced in at least the past year, rather than the frequency of microaggression, particularly since some items were viewed as being unlikely to happen on a frequent basis. Because this would alter the measurement scale, separate set of analyses to determine if this would alter the items retained and/or the factor structure.

FAMS-CL Factor Structure. The principal components analysis with varimax rotation met assumptions for sampling adequacy and yielded a 3-component 18-item solution. The three components and their respective items, rotated component loadings, communality estimates, occurrence rate (i.e., % of participants who endorsed the item), are presented in Table 2. The component structure was nearly identical to that when using Frequency scoring, with several notable differences. Three items did not load on to the original factors, two from the Positive Stereotype and one from the Negative Stereotypes. Meanwhile, the Perpetual Foreigner

[1] A response of 1 (i.e., less than once a year) was recoded to 0 since it was determined that such microaggression events likely occurred very infrequently, even just once over a person's lifetime. Although specific single events could potentially cause significant stress or have a meaningful impact on one life's, this could not be determined given the measurement scale, i.e. it measured frequency but not stress associated with events.

component contained one additional item ("Someone told me Filipinos make great workers"). Although this item was expected to load onto the positive stereotypes component, I elected to keep it due to the fact that there are a high number of laborers whom out-migrate from the Philippines, known as OFWs (Overseas Filipino Workers; see de Guzman, 2014 for review). This may explain why the item was related to assumptions that one is not from the U.S.

FAMS-CL CFA. Because recoding scores now made each item a binary variable, the confirmatory factor analysis was completed using Unweighted Least Squares (ULS) estimate (Brown, 2015). The 18-item, 3-factor structure had adequate fit (GFI = .96, NFI =.93, RFI = .91, PNFI = .79; Arbuckle & Wothke, 1999; Byrne, 2001). Three items were removed from the Positive Stereotypes factor due to small factor loadings or having little variance accounted for (after examining r-squared multiple correlation estimates). The new 15-item, 3-factor model had improved fit (SRMR = .06, NFI = .95, RFI = .94, GFI = .98). Again, a re-specified model with a 2nd order factor was tested, which had identical nearly fit.

4.3.4 FAMS: Final Version

Since the checklist and frequency versions yielded similar factor structures but with slightly different items, a "super" version was created containing 19 items total, i.e. all items retained in both measurement models. This 3 factor, 19 item model was tested using both frequency and checklist scoring. For the frequency version, the chi-square statistic was significant as expected ($\lambda^2 = 306.88$, $df = 141$, $p < .001$). Model fit was acceptable based on two indicators (RMSEA = .07, CFI = .92), and the SRMR of .06 suggested good model fit. Fit was identical when specifying a 2nd order factor, which suggested that a total scale score could be used. For the checklist version, model fit was acceptable based on two indicators (NFI = .93, RFI = .92; Arbuckle, 1999; Byrne, 2001), while good according to SRMR and GFI (SRMR = .07,

GFI = .96). Fit was similar for the model when specifying a 2nd order factor, suggesting a total scale score can be used.

These results supported the FAMS containing all 19 items as at least an acceptable measure of microaggressions, when using either form of scoring. Thus, the final version of the FAMS retained all 19 items to allow and for either frequency or binary scorings. The measurement model for the final version of the FAMS is depicted is Figure 2.

4.3.5 Reliability and Validity

Reliability. Reliability estimates were calculated using the full sample. Separate scores were created for the frequency and checklist versions. Reliability coefficient, means, and standard deviations, and intercorrelations are presented in Table 3. Using frequency scoring, internal consistency acceptable (.79) to good (.82) for the subscales, and excellent (.90) for the total scale. Reliabilities were decreased with the checklist scoring system, with internal consistency being questionable (.65) to acceptable (.72) for the subscales and good for the total scale (.82).

Because experience of discrimination and microaggressions tend to vary within group depending on other demographic factors (Nadal, Wong, Sriken, Griffin, & Fujii-Doe, 2015), alpha coefficients were also calculated based on generational status and gender. Reliabilities, means, and standard deviations for the total scale and each subscale, using frequency scoring, are presented by group in Table 4.

Concurrent Validity. For concurrent validity, scores on the FAMS and its subscales were examined in relation to racism experience as measured in the RaLES-B. FAMS scores were hypothesized to have positive correlations with RaLES-B scores. All correlation coefficients are presented in Table 3. As hypothesized, the FAMS total score had a moderate correlation with the

total score on the RaLES-B, as well as the Self and Group score. The FAMS subscales had mild to moderate correlations with the RaLES-B scores.

Convergent Validity. To examine convergent validity, I examined FAMS scores in relation to measures of acculturation/enculturation (AAMAS). Hypotheses were as follows: 1. Enculturation, i.e. orientation to Filipino culture (AAMAS-CO), would be positively correlated with FAMS scores; 2. Orientation to Pan-Asian culture (AAMAS-AA) would be positively correlated with FAMS scores; and 3. Acculturation, i.e. orientation to European American culture (AAMAS-EA), would be negatively correlated. All correlations are presented in Table 3.

As hypothesized, the FAMS total score and two of its subscales had significant correlations with AAMAS-CO scores. The total score and Subscale 1 (Positive Stereotypes) had weak correlations, while Subscale 3 (Perpetual Foreigner) had mild correlations. In other words, individuals with higher levels of enculturation tended to experience increased number or frequency of perpetual foreigner type microaggressions.

The total score and two subscales had weak correlations with the AAMAS-AA. Using frequency scoring on the FAMS, the Subscale 2 (Negative Stereotypes) had a weak correlation with Asian culture orientation while checklist scoring resulted in a non-significant correlation.

Finally, the total score and two subscales had weak to mild, negative correlations with the AAMAS-EA scores. Unlike enculturation and orientation to Asian culture, the Positive Stereotypes subscale had no significant correlation with acculturation scores. However, the Negative Stereotypes subscale had a weak negative correlation with acculturation.

4.4.0 FAMS Discussion

The purpose of this initial study was to develop and test the Filipin@ American Microaggression Scale, a measure of group-specific microaggressions for Filipino Americans. Among Fil-Am young adults, principal components analyses yielded three components that made conceptual sense. Subsequent confirmatory factor analyses provided support for the FAMS as at least an adequate measure of Fil-Am specific microaggressions, using either checklist or frequency type of scoring. The resulting measure contained 19 items with three subscales: (1) Negative Stereotypes - assumed inferiority/second class citizen; (2) Positive Stereotypes – assumptions of similarity; and (3) Perpetual Foreigner stereotype. Furthermore, the measure demonstrated good internal consistency and concurrent validity with a measure of general perceived racism.

Although there were fewer subscales than expected, each was similar to the taxonomy on microaggressions that have been described in studies on Filipino Americans, Asian Americans, and people of color in general (Nadal et al., 2012). Some items were adapted from other measures of microaggressions (e.g., "someone assumed I would be poor"; Nadal, 2011). However, this was expected given that these events were consistent with the qualitative/theoretical literature on microaggressions among Fil-Ams. What the items unique to the FAMS do provide on the is specificity in experience. For example, although mistaken ethnicity may be assessed in other measures, the FAMS separately assesses the ethnic groups in which an individual may be mistaken for, highlighting both the phenotypic differences Filipinos have from other ethnic groups as well as the in-group variation among Filipino people. Further, the measure assesses for the unique standing that Fil-Ams have in being racially categorized as Asian. For one, the FAMS contains items where Fil-Ams are lumped together with the

experiences of other Asian groups and therefore prone to similar stereotypes and attitudes from others. At the same time, it also addresses perceptions that Filipinos have a lower standing in the broader Pan-Asian community (Nadal, 2009).

A strength of this study was its ability of this study to test the FAMS in a large, relatively diverse national sample of Filipino Americans, for whom the FAMS was designed for as whole. Internal consistency was demonstrated by generational status and gender, although reliability was slightly lower for the Perpetual Foreigner subscale among 1st generation individuals. Although not formally tested, FAMS scores likely varied by subgroup. In general, previous studies have found that discrimination experiences at least vary by birthplace (e.g., Mossakowski, 2007). It would be beneficial to analyze for potential subgroup differences in order to help determine who among Fil-Ams is more likely to experience certain types of microaggressions than others. It would also be useful to analyze potential regional differences, particularly since over half the current sample resided in the western U.S.

There was also some evidence for convergent validity, by examining scores on the FAMS and its subscales in relation to the AAMAS, a multi-dimensional measure of acculturation. As hypothesized, enculturation, i.e. orientation to Filipino culture, was associated with increased experience of perpetual foreigner microaggressions. This makes sense given that a more enculturated individual is more likely to speak the heritage language and potentially having an accent, thus receiving differential treatment. Orientation to Pan-Asian culture and orientation to Filipino culture had similar correlations with positive stereotypes-assumptions of similarity, which was also hypothesized. Finally acculturation, i.e. orientation to White/European American culture was negatively associated with all FAMS scores. This could potentially reflect assimilation in response to, or to prevent, marginalization from the dominant culture (e.g., David

& Okazaki, 2006a). These current results provide evidence linking cultural orientation and to racism experiences, which can be further explored in future studies.

4.4.1 FAMS Limitations and Future Directions

This study and the resulting measure should be considered in light of potential limitation. The methodological limitations will be addressed primarily in the overall discussion section for Study 1 (Section 6.0.0). As it relates to the design of the FAMS, the limited age range of the sample may restrict the generalizability of the FAMS to other age groups. It could be that the items assessed here were more likely to occur amongst young adults or that items that were eventually removed were more applicable for individuals outside of this age range. Additionally, the FAMS as written in this study, assessed for exposure to Fil-Am specific microaggressions over one's lifetime. Results from Study 1 provide little information as to whether one is exposed to a microaggression on a chronic basis. Thus, future studies could examine the FAMS measurement structure when using different reference periods.

Further, because the FAMS was designed for use with anyone identifying as Fil-Am, some microaggressions typically targeted amongst subgroups may have been excluded. For example, microaggressions towards Filipina women or those identifying as having a multi-ethnic background may not receive attention in this or other microaggressions measures. Because of the diversity within Fil-Ams as a whole, it would be beneficial to test for measurement invariance in future studies.

Similar to the REMS (Nadal, 2011), some items from the initial item pool loaded heavily on more than one component, though they were supported by qualitative data. Some items did not load as expected, such as, "I've been criticized for being too passive." This likely reflects difficulties delineating whether such events are race related, based on stereotypes, or simply

critiques of personality. For future studies, it may be beneficial to re-analyze or refine some of the initial items in order to help ensure that the FAMS adequately captures microaggression experiences of Fil-Ams.

The microaggression events that are assessed in the FAMS are all interpersonal in nature. Although this is the most commonly researched form of racism, it only constitutes one of six forms as described by Harrell (2000). As with other measures of discrimination and microaggressions, the FAMS is based on the self-report of past experience and not exposure to verifiable events. The FAMS also does not assess for stress associated with each type of microaggression, i.e. an individual's appraisal of the event. However, this type of measurement scale lends itself well to stress-coping models of racism whereby perceived discrimination is characterized as a form of stressor. It does not matter if an event can be verified as "actual" discrimination, as long as the individual perceives it as threatening it can create distress (e.g. (Pascoe & Smart Richman, 2009; Williams, Neighbors, & Jackson, 2003). One could argue that simply being exposed to microaggressions, regardless of event appraisal, leads to longer-term health issues thus confirming the "insidious" nature of microaggressions. In a similar vein, even exposure to positive stereotypes can have a negative impact on targeted individuals (Siy & Cheryan, 2013). Further, the FAMS is only intended to assess exposure to Fil-Am specific microaggressions since individuals may vary in how they construe microaggressions (e.g. minimizing/denial). In other words, exposure to microaggressions alone does not necessarily entail negative impact in itself.

A primary goal for future studies is to determine whether continued exposure to the microaggressions assessed in the FAMS, is associated with detrimental health outcomes and race-related stress among Filipino Americans. Because of the group-specific design of the FAMS,

another potential area for future research is examining the differential impact of group-specific microaggressions, e.g. positive versus negative stereotype. Research to date has primarily focused on cumulative exposure to microaggressions overall, and not potential impact of specific events such as common everyday microaggressions or group-specific microaggressions (see Wong et al., 2013 for review).

Another question that remains to be answered is whether the microaggressions assessed in the FAMS contribute unique variance in health outcomes, over and above that of existing measures. Some items are similar to existing microaggressions measures and it does not assess for contextual information such as the environment each event occurred or any information on the source or perpetrator of a microaggressions. Incremental validity was partially addressed in Study 2.

Despite its limitations, the study provides evidence for the FAMS as a valid and reliable measure of microaggressions experienced by Filipino Americans. The FAMS addresses a gap in the racial and ethnic microaggressions literature in assessing for group-specific microaggressions, and may help in better understanding the differential impact of different forms of microaggression. Similar measures could also be developed for other marginalized groups. Although more comprehensive measures of microaggressions do exist, the FAMS may be a useful supplement in better understanding the unique experiences of Fil-Ams, a group that has long been ignored in research and practice.

5.0.0. FilAmIM Item Development, Results, and Discussion

5.1.0 Background Literature and Construct Definition

Ethnic identity and its role in behavioral health have been widely researched among non-White ethnic communities in the United States. In the majority of studies, the concept of ethnic identity has been based on social identity theory, which states that belonging to a social group provides group members with a sense of self-identity, a way of distinguishing themselves based on their group membership. It also provides a sense of belonging and a shared sense of identity with others in the group. The group dictates norms and expectations for behaviors that are appropriate for an individual's membership, and group members typically behave in accordance with group norms (Tajfel, 1981; Tajfel & Turner, 1986); as reviewed in Phinney & Ong, 2007).

According to Phinney (1996), ethnicity is defined as membership in a national or cultural group and observance of that group's customs, beliefs, and languages transmitted across generations. Ethnic identity then is "one's identity or sense of self as a member of an ethnic group" (Phinney, 2003). Using this definition, individuals high in ethnic identity tend to feel a strong sense of belonging, have positive attitudes towards their ethnic group and participate in social events and cultural practices (Rumbaut, 1994). Although Phinney and Ong (2007) stated that "for ethnic identity to be fully understood, it is best considered in relation to…their identity as part of their national culture" (p. 273), ethnic identity is often examined in isolation. Applied to Filipino Americans, a brief review of history and ethnic studies literature illustrates potential difficulties and limitations in examining ethnic identity exclusively and why it may more appropriate to consider multiple group identities.

5.1.1 Defining Filipino American Identity

For Filipinos in the Philippines and across the Philippine diaspora, there is a continuing ethnic/cultural identity crisis - confusion as what constitutes an authentic and shared sense of identity (e.g. Cordova, 1983; Mulder, 2013). In the U.S., the term "Filipino" is used to define an ethnic group. However, the Philippines contains over 180 distinct indigenous ethnic groups (Philippine National Statistics Office, 2010). Thus, in that context, "Filipino" may more accurately describe a nationality or a broader category of ethnic groups with geographical origins in the Philippines.

In terms of shared characteristics, within-group diversity exists in terms of language and phenotype among the Filipino people due to the wide number of distinct ethnic groups. Although English is taught widely in the school system, it is primarily accessible to the upper class and educated. Catholicism and other Christian denominations are practiced by approximately 90% of people in the Philippines, and a number of national holidays and cultural practices and values are based in this practice. However, a portion of the population identifies as Muslim, particularly in regions less impacted by colonialism. Similarly, many Filipinos are not connected to pre-colonial indigenous history and cultural practice (see (David & Nadal, 2013 for review). Considering that the Philippines contained a number of culturally disparate groups, prior to colonization, as well as cultural influences from globalization, it is difficult to define an "authentic" Filipino based on cultural practice alone (e.g., Mulder, 2013).

While considering the broader context of the Philippine diaspora, attempting to define a shared identity is even more complex for Filipino Americans. The term "Filipino American" typically refers to any U.S. citizen or resident of Filipino ethnic descent, and thus can range from recently arrived immigrants to individuals born in the U.S. However, there is a wide variation in

the cultural practice of U.S. based Filipinos. Within the Filipino American community, individuals may vary in how they identify themselves as "Filipino", e.g. a Filipino living in America, versus "Filipino American" (e.g. Tuason et al., 2007). U.S.-born Filipino Americans are often viewed as those who adopt more American based values and practices, distinct from those of Filipinos in the Philippines, and have less knowledge of Philippine language(s) and history. However, Fil-Am identity is also viewed as distinct from identifying as American alone since regardless of cultural practice: (1) phenotypically they are still perceived as Filipino, (2) Fil-Ams have historically been excluded from U.S. history and culture, and thus (3) attempts are made to preserve a sense of identity and Filipino culture. Thus Filipino Americans constitute a unique cultural group, in that they are located in the U.S. and have ties to the Philippines to varying degrees (e.g., Lott, 2006; Mendoza, 2002).

As a whole, Filipino American history is distinct from that of Filipinos in the Philippines, is often unrecognized in the broader context of the U.S., and contains experiences shared with other non-White ethnic groups. Nonetheless, there is wide variation in socio-historical experiences of Fil-Ams, which further makes it difficult to define a collective group identity. Immigrants in the early 20th century were mostly laborers and students whom resided in the West Coast and Hawaii (Posadas, 1999). Fil-Ams during this period often allied with other ethnic groups for social movements including labor strikes (Scharlin & Villanueva, 2000), and the pan-Asian ethnic movement that begin in the 1960s, whereby groups categorized as Asian Americans united in response to shared oppression and also emphasized cultural similarities (Wei, 2008). With the end of immigration quotas in 1965, many Filipino immigrants have been highly educated with work in professional fields, and typically fluent in English (e.g., Nadal, 2009).

However, there is still a percentage of Filipino immigrants whom report having limited English proficiency and educational attainment (U.S. Census Bureau, 2014).

Although Filipino Americans represent a significant portion of the population in certain regions of the United States, some Filipino Americans remain geographically isolated. Even more challenging is that few major cities have a "Filipino town" as a center for Filipino culture and community building. There are no Filipino language schools and only a handful of universities offer courses in Tagalog, let alone other Philippine languages. Finally, in-group conflicts may divide established Filipino American communities. There are Fil-Am community and student organizations that provide opportunity for shared culture and community building and resources for Fil-Am individuals (see Nadal, 2009 for review). However, their availability varies by location. Thus, constructing and defining a sense of shared identity is also difficult when considering that exposure to other Filipino peoples and Filipino culture may vary for individuals across the U.S.

5.1.2 Filipino American Identity Model.

Nadal's (2004) Filipino American Identity Development Model may provide guidance in defining and assessing group identity among Filipino Americans. The model acknowledges a multicultural context and the possibility of identifying with multiple groups. The dimensions include the individual's attitudes and beliefs toward the self, Filipino Americans, Asian Americans, White or the dominant group, and other ethnic minorities.

Based on these attitudes and values, Nadal's model proposed the following stages of identity development: ethnic awareness, assimilation to the dominant culture, awakening to social-political consciousness, panethnic Asian American consciousness, ethnocentric consciousness, and incorporation. The earlier stages are marked by preference for dominant

values and rejection of Filipino American values. The panethnic stage involves identifying with Asian Americans in general, since Filipinos are racially categorized as Asian. In other words, Fil-Ams at this stage identify with broader pan-Asian culture and not necessarily Filipino specifically, which might represent a strategy to achieve a sense of belonging. The ethnocentric stage represents distancing from a general Asian identity and developing a more Filipino-specific identity. The final stage involves satisfaction and pride with Filipino culture but also appreciation for other cultures, including the dominant and Asian American cultures.

While it presents a theoretical construct adapted for Fil-Ams, the Filipino American Identity Development model has not been extensively researched. Nonetheless, it takes into consideration factors that distinguish Fil-Ams from other Asian American and ethnic minority groups. Thus, the purpose of the current study is to develop a group identity measure that accounts for the unique context of Filipino Americans, one that incorporates aspects of ethnic racial identity, national identity, pan-ethnic identity, and identification with other oppressed ethnic groups.

5.1.3 Ethnic/Racial Identity: Constructs and Measure.

Ethnic identity is the most empirically established group identity construct and likely guides the definition and measurement of other group identity constructs. Specifically, ethnic identity may contain the following multiple facets (see Phinney & Ong, 2007 for review): *Self-categorization* refers how one uses a label or category one to self identify as a member of an ethnic group. *Commitment/Attachment* refers to one's sense of belonging and personal investment in their ethnic group, e.g. "I understand what my ethnic group membership means to me." *Exploration* refers to behaviors where one is seeking information and experiences relevant to one's own ethnicity, e.g. trying to learn more about ethnic group's culture and customs.

Evaluation and Ingroup Attitudes refer to positive feelings and attitudes about group membership. *Important and Salience* refers to importance attributed to one's ethnic identity.

These facets provide the basis for the Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992), the most widely used measure of ethnic identity. MEIM items assess for an individual's degree of exploration and commitment toward their ethnic group. The total score on the MEIM is meant to indicate the degree one has obtained an achieved sense of ethnic identity, i.e. has come to terms with ethnic group membership. In contrast, the Ethnic Identity Scale measures affirmation, i.e. positive feelings about group, and resolution, i.e. understanding meaning of ethnic group membership, separately. Rather than use an overall score, it does not is intended to measure only specific components of ethnic identity, to allow for examining of differential effects of ethnic identity component (EIS; Umana-Taylor, Yazedjian, & Bamaca-Gomez, 2004). Both scales are unidimensional, and each item is worded so that examinees rate their membership within "my ethnic group."

Racial identity is another widely researched concept, with similarities to ethnic identity. Both involve a sense of belonging and learning about their group, and both develop and change over time. However, racial identity refers to how individuals construct identities in response to an oppressive and highly racialized society. In other words, how someone forms a self-concept as a racial group member and how that person views or interacts with other group members (Helms, 1990). In contrast to ethnic identity, distinct components of racial identity are orientation to race issues and ideology (Sellers, Rowley, & Chavous, 1997). Individuals with a more developed racial identity are more aware of the concept of race and racial issues (Cross, 1971).

Racial identity models were developed primarily in the context of Black identity. As such, existing racial identity measures assess the stage of an individual's Black identity development,

or the items have been modified to fit other populations. Items on the Racial Identity Attitudes Scale (Helms, 1995) reflect the extent to which Black Americans endorse pro-White, anti-Black, or more flexible attitudes. Meanwhile, the Multidimensional Inventory of Black Identity (Sellers et al., 1997), measures racial centrality, the extent one normally defines the self by race, and racial regard, feelings about one's own race. Additionally, participants are assessed in different racial ideologies: (1) nationalist, which emphasizes uniqueness of African descent; (2) oppressed minority, which emphasizes commonalities between African Americans and other minority groups; (3) assimilationist, which emphasizes commonalities between African Americans and mainstream society; and (4) humanist. Even if these models view race relations in terms of Black/White issues, research on racial identity provides an alternative conceptualization for understanding and measuring group identity for Filipino Americans, particularly in how they relate to people of different ethnic groups.

5.1.4 Pan-Ethnic Identity

Pan-ethnic identity refers to identification with a broader racial group. In this case, all groups with ethnic origins in Asia or racially categorized as "Asian American." It is conceptualized as racial consciousness and identity process that is independent of ethnic identity (Alvarez, 1997). The term, "pan-ethnicity" was first coined by (Le Espiritu, 1992), whom defined it as "the generalization of solidarity among ethnic subgroups—and is largely a product of categorization". A pan-ethnic identity is developed largely in response to marginalization and oppression, whereby individuals become more inclined to associate with categories that were ironically imposed on them by the dominant group, and in opposition to the dominant group (Le Espiritu, 1992). In doing so, between group differences are de-emphasized while common experiences and cultural similarities are emphasized. Identifying with a pan-ethnic group may

also be an optimal strategy when there are few resources specific on one's group, e.g. geographic isolation.

By encompassing many diverse groups with distinct historical and cultural backgrounds, some have argued that Asian Americans are similar only in being located in the U.S. and being forced in to the broader Asian category (e.g., Omi & Winant, 1994). However, evidence suggests that are is an identifiable pan-Asian culture derived from the cultures of Asian origin or similarity of experiences in the U.S. (Chung et al., 2004; Kim, Yang, Atkinson, Wolfe, & Hong, 2001). While Fil-Ams may not fit perfectly in to the Asian category for reasons outlined above, Fil-Ams have historically aligned with other Asian groups and pan-Asian organizations and do share some similar values such as deep respect for elders. Thus, it would be appropriate to consider one's sense of Pan-Asian identity among Filipino Americans.

To date, only the Asian American Multidimensional Acculturation Scale (AAMAS) contains items on a pan-Asian identity, as a facet of cultural orientation and practice among Asian Americans (Chung et al., 2004). It is not clear whether a pan-Asian identity has a similar process to ethnic identity, and to what degree Fil-Ams self-identify with the broader pan-Asian community and shared culture.

5.1.5 National Identity

A sense of national identity refers to identification with the country of residence, a broader and more inclusive entity than the ethnic/racial groups described above. A national identity is typically defined as the culture of the dominant group. In the case of ethnic minorities, this would mean identification and a sense of belonging with the dominant White/European American culture (e.g., Huynh et al., 2014). Previous research supports the notion that national identity exists as a construct independent of ethnic identity, and that the relationship between the

two may vary (as reviewed in Phinney & Ong, 2007). Considering previous research regarding colonial mentality, i.e. rejection of anything Filipino and preference for anything American/White, cultural mistrust, i.e. distrust of mainstream of American institutions (David, 2010; David & Okazaki, 2006a), and that a significant percentage of Filipino Americans identify as multiracial, national identity is likely an important aspect of group identity to consider amongst Fil-Ams.

Typically, national identity is measured as an aspect of acculturation. Few scales measure national identity exclusively. One measure, the American Identity Measure (Schwartz et al., 2012) adapts items on the MEIM so that "my ethnic group" is replaced with "United States" or "American." Its factor structure was found to be equivalent to the MEIM, suggesting similar identity processes for ethnic and national identity.

5.1.6 People of Color/Allied Identity.

One final group identity to consider is a shared experience with any non-dominant or oppressed ethnic group. Identification with People of Color (POC) in general may be particularly relevant for Fil-Ams due to the distinctions from other Asian groups and potential marginalization from the Pan-Asian community, both of which were discussed above. Fil-Ams then, may identify or align with Hispanic/Latino or Pacific Islander groups due to cultural similarities. There are historical examples of Fil-Ams forming coalitions with other ethnic groups in order to enact social change, such as the farmworkers movements in the 1960s (Scharlin & Villanueva, 2000) . Fil-Ams have also played an integral role in hip-hop culture, sharing this interest with African Americans and other communities of color (e.g. Nadal, 2004). The "Oppressed Minority" ideology, within the Multidimensional Inventory of Black Identity (Sellers et al., 1997), measures the degree to which black individuals view the experiences of

other oppressed racial groups as being similar to their own. For the most part, however, this aspect of group identity has not been widely researched.

5.2.0 Scale Development

Based on Nadal's Filipino American Identity Development Model, the Filipino American Identity Measure (FilAmIM) was developed for this study to measure group identity among Filipino Americans in a multidimensional fashion. By doing so, I believed it would more adequately capture the unique socio-historical and cultural context in which Filipino Americans construct a group identity. The FilAmIM is for use with any individual whom ethnically identifies as Filipino in full or in part, living in the United States, and regardless of generational status. The FilAmIM contains 5 separate scales, each representing relatively independent group identity constructs. The scales were proposed as follows: Filipino identity (ethnic identity), Filipino American identity (cultural/generational identity), American identity (national identity), Pan-Asian identity (racial identity), and POC/Allied identity (status identity).

The items developed in this study assessed for behaviors and attitudes indicating identification with each specific group. Measure constructs were informed both by qualitative data and existing literature. Although there are multiple components in the development of group identity (assuming each follows similar processes as ethnic identity), the items focused primarily on if one self identifies as a member of a group, i.e. *self-categorization/identification*, and how one interacts with other group members, i.e. *affiliation*. Identity was conceptualized in this way so that the measure could more directly assess competing hypotheses regarding ethnic identity and discrimination. Specifically, one of the main arguments for the exacerbating hypothesis is that discrimination is more harmful to individuals who highly identify with, and to a lesser extent,

consider themselves a member of their ethnic group. The buffering hypothesis meanwhile, states that one reason ethnic identity is protective is because highly identified individuals are able to access resources and support from their ethnic group.

5.2.1 Qualitative Findings

The qualitative data was similar to other inquiries on Filipino American identity (e.g. Bonus, 2000; Tuason et al, 2007). A common occurrence was that participants made a distinction between the terms "Filipino" and "Filipino American." The definition of these terms varied between individuals. Some associated the term "Filipino" with ethnicity and "Filipino American" as the culture they identify with. Others defined them as distinct groups, with "Filipinos" being the older generation or those being born in the U.S. while "Filipino Americans" or "Fil-Ams" being anyone born in the U.S. As one 1st generation male put it,

> "My friends back home would consider me Filipino American by virtue of me living here now. But here I don't know if you could categorize me as that. I am not yet a citizen…I think I have absorbed a lot of American culture…and if I speak like this (Americanized accent) back home, my friends would be like "oh, you're such an American now."

Although there were general perceptions of what defined "Filipino" vs. "Filipino-American," participants nonetheless varied in terms of how they self identified regarding their ethnic background. Further, some labeled themselves as a member of a group, but were not committed in their group identity (as defined in Phinney & Ong, 2007). This was not dependent on generational status, as illustrated in the following quotes:

> "I'm Filipino-American, more emphasis on the 'American' part. We do have Filipino friends, but our lifestyle choices and viewpoints are more 'American'…but I do consider myself Filipino-American because I do have some pride about my culture, even if I don't know much about it." – 2nd generation male

> "I'm Filipino. Yeah I'm sure I do American practices, but a lot of my upbringing, the messages, what I stand for is very rooted in my Filipino parents." – 2nd generation male

> "I more so exuded Filipino pride when I was younger because that was an identity that I thought made me different …then as I grew up I found myself in the face of people of who are very attached and very familiar with the culture. Almost like a disclaimer, I want to tell them (other Filipinos who ask if I'm Filipino) '*I'm Filipino but I'm not as Filipino as you'"* - 2nd generation female

With regards to multiple group identities, participants also indicated that they may also identify as Asian American. Some noted shared values such as respect for family, while others stated that others view them as "The Asian guy/girl, not so much Filipino." A 1.5 generation female stated:

> "I'm involved in student groups with other Asians, and most of my friends are Asian, but not Filipino…For whatever reason, I've just never gotten along with the U.S. borns."

Overall, the qualitative data illustrated the complexities in defining Filipino American identity and how one identifies and whom they affiliate with varies by individual.

5.2.2 Item Development

Items were written based on quotations in the qualitative data and literature on Filipino American identity and ethnic identity in general. Items were mostly adapted from existing identity and cultural scales including the MEIM (Phinney, 1992), People of Color Racial Identity Attitudes Scale (PCRIAS; Helms, 1995), and Enculturation Scale for Filipino Americans (ESFA; del Prado & Church, 2010), Collective Self Esteem Scale (Luhtanen & Crocker, 1992) and the Cultural Identity Subscales from the AAMAS (Chung et al., 2004). The item pool contained the following aspects of group identity:

- *self-identification*: if one labeled themselves as a member of a particular group.
- *affinity:* subjective feelings about the group or the group's culture (regardless of cultural practice); or pride in being a group member.
- *affiliation:* sense of belonging with other group members, which included shared or vicarious experiences (e.g. "I feel proud when I hear about the success of other Filipinos). For the American Identity scale, the referent group was European/White Americans
- *centrality/salience*: the importance of group membership to one's self-identity For group specific
- *exploration*: seeking relevant information for that group identity ("I have spent time learning about history, customs…")
- *commitment*: sense of belonging or attachment to one's ethnic group, e.g. ethnic pride, and may also include a resolved sense of identity

The initial pool of items contained 36 items whereby Filipino and Filipino American identity were combined in a single scale, 34 items for American identity, 38 items on Pan-Asian identity, and 21 items for POC/Allied identity. Filipino and Filipino American identity were initially combined on a single scale, since focus group participants varied widely in how they labeled their identity. I initially interpreted that Filipino and Filipino American could be used as interchangeable terms to describe ethnic group. However, initial feedback from colleagues and community members, as well as later feedback from interviewees, suggested that Filipino and Filipino American should be on separate scales. Thus, Filipino Identity was treated as ethnic

group identity while Filipino American Identity was treated as a distinct cultural or generational group.

Items were also re-worded or removed based on feedback, which indicated that some items did not make conceptual sense when applied to other group identities. Each group identity scale was presented separately, and instructions clarified the definition of each referent group. Following revision, the piloted version of the measure contained 27 Filipino identity items (FilAmIM-FI scale), 18 items for Filipino-American identity (FilAmIM-FAI scale), 16 American identity items (FilAmIM-AI scale), 15 Pan-Asian identity items (FilAmIM-PAI scale), and 12 POC/Allied identity items (FilAmIM-POC scale).

5.3.0 Results: Filipino American Identity Measure (FilAmIM)

5.3.1 Data Screening

Data for each item was screened for missingness, and "N/A" responses were treated as missing data. Several items contained higher levels of missingness due to N/A responses (> 5%). Upon examining missing data patterns, the percentage of N/A responses was disproportionate by generational status. Specifically, non-responses were more frequent among 1st and 1.5 generation participants (up to 20% of sub-sample) for some items on the FilAmIM-FAI and FilAmIM-AI scales. These items were worded in such a way that they assumed an individual identifies as Filipino American or American, and I interpreted that they were contingent on positive responses to other scale items (i.e. a response of agree or strongly disagree). In other words, they truly did not apply for certain individuals. Because the measure is intended for use with the broader Filipino American population, rather than subgroups such as 1st or 2nd generations, and to allow

for comparison between groups, I elected to remove these items from analysis. The remaining items had low missingness (<5%) and missing values were mean imputed.

5.3.2 Exploratory Factor Analysis

195 cases were included in the EFA sample. The principal axis factoring analysis for each scale of the FilAmIM met assumptions for sampling adequacy.

FilAmIM-FI Scale. Initially, all 27 items were subjected to principal axis factoring with promax rotation. Based on examination of the scree plot, both a five-factor and a four-factor solution were explored. The five-factor solution contained one two-item factor, which had unacceptable reliability. Thus, the four-factor solution was used.

The four-factor solution contained 13 items and accounted for 54.36% of total variance of the items after extraction. Based on extraction sum of squares loadings, each factor accounted for 40.17%, 5.13%, and 4.85% of the variance before rotation. Each factor was consistent with components of ethnic identity identified in the broader literature (e.g., Phinney & Ong, 2007). Factor 1 was labeled Salience, and contained 5 items assessing the importance of one's ethnic background to sense of self-identity. Four of these items were adapted from the Collective Self-Esteem Scale (Luhtanen & Crocker, 1992). Factor 2 was labeled Filipino Affinity, with 4 items indicating one's regard for Filipino heritage and culture. This is not necessarily assessing the actual practice of Filipino culture, i.e. enculturation, but rather the desire to practice culture or be affiliated with other Filipinos. Factor 3 was labeled Group Affiliation, with 4 items assessing the degree to which one identifies with or interpersonally relates to (ethnic) Filipino people, including vicarious experiences ("I feel proud when I hear about the success of other Filipinos. Finally, Factor 4 was labeled Identification, with 3 items measuring the degree to which individuals believe they can describe their identity as Filipino. This is similar to Self-

Categorization (Ashmore, Deaux, & McLaughlin-Volpe, 2004), i.e. verifying that one does in fact self-identifies as a member of particular group. The four factors and their respective items, factor loadings, communality estimates, means, and standard deviations are presented in Table 5.

Other Identity Scales. The remaining scales had similar two factor solutions from principal axis factoring, however the retained items varied across scales. The factors were similar to those found on the Filipino identity scale, or collapsed versions of them. The two factors for each scale were labeled: 1. Identification/Affinity; and 2.Affiliation. The FilAmIM-POC had slightly different factors, which is described below. For all scales, each factor and their respective items, factor loadings, communality estimates, means, and standard deviations are presented in Table 5.

The Filipino American Cultural/Generational Identity scale (FilAmIM-FAI) resulted in a 9 item, two-factor solution, accounting for 52.44% of item variance after extraction. Its Identification/Affinity factor, contained 5 items and accounted for 43.42% variance before rotation. The Affiliation factor, meanwhile, contained 4 items and accounting for 8.38% variance before rotation.

PFA on the American National Identity scale (FilAmIM-AI) yielded a 12-item (reduced from 17), two-factor solution accounting for 46.57% of item variance after extraction. The Identification/Affinity factor contained 7 items and accounted for 35.03% variance, while the Affiliation factor contained 5 items and accounted for 11.54% variance before rotation.

The Pan-Asian Racial Identity scale (FilAmIM-PAI) maintained 8 items (reduced from 16), with the two factor-solution accounting for 55.14% of item variance before rotation. The Identification/Affinity factor accounted for 7.94% variance, while Affiliation accounted for 47.19% variance before rotation.

Finally, the Person of Color/Allied Identity scale (FilAmIM-POC) maintained 7 of the original 12 items and accounted for 44.46% of item variance before rotation. The first factor contained items both on Self Identification, Exploration, and Affiliation, in terms of interpersonal interactions. It was Identification/Interpersonal Affiliation and accounted for 39.91% variance before rotation. The second factor also contained Affiliation items, related to vicarious experiences (e.g. "I feel proud when I hear about the success of…") and accounted for 6.52% before rotation. It was labeled Allied Affiliation.

5.3.3 Confirmatory Factor Analysis.

The factor structure for each scale was then subjected to confirmatory factor analysis. For each scale, the chi-square statistic was significant. However, this is not unusual given that the chi-square statistic tests exact-fit hypothesis that the model and population covariance equal, which is very stringent (Brown, 2015). The other fit indices were evaluated according to "rules of thumb" criteria suggested in Hu & Bentler (1999). For each identity scale, fit statistics are presented in Table 6.

In order to improve model fit for each scale, the standardized residual matrix was examined to identify potentially problematic items (McDonald, 1999). Items with significant residual covariance were removed. Modification indices were also examined, and error variances were allowed to covary for items that were on the same factor. Finally, in order to support use of a total scale score, each model was re-specified to include to first-order factors (Centrality/Salience, Affinity, Affiliation, and Identification for the Filipino Identity Scale; Identification/Affinity and Affiliation for other scales) to represent subscales and a second-order factor representing a total Identity score. The model fit supported the use of a total score to measure degree of each respective group identity, however additional constraints were specified

on all models but the FilAmIM-FI. The fit indicators for each model, and a summary of scale changes, i.e. items removed, are presented in Table 6. The final measurement models are depicted in Figures 3-7. The final version of the full measure, used in Study 2, is included in Appendix B.

5.3.4 Reliability and Validity

Scale and subscale scores were calculated based on the results of factor analysis, which were then tested for reliability and validity. All reliability estimates and descriptive statistics for all Fil-AmIM scales and respective subscales are presented in Table 7, while all inter-correlations and correlations between FilAmIM scales are included in Table 8.

Reliability

Refer to Table 7 for all reliability coefficients. Internal consistency ranged from poor to good on the FilAmIM-FI scores. Notably, the reliability coefficient was .55 for the FilAmIM-FI Identification subscale. For the FilAmIM-FAI scale, internal consistency ranged from acceptable to good. The FilAmIM-AI scale had good internal consistency across all subscales. Internal consistency on the FilAmIM-PAI scale was acceptable to good. Finally, internal consistency on the FilAmIM-POC scale was acceptable to good.

Concurrent Validity

To test for concurrent and discriminant validity, scores on all 5 FilAmIM scales were subjected to correlation analyses with scores on the MEIM, the most widely used measure of ethnic identity, and the three scales of the AAMAS, a multi-dimensional measure of cultural orientation. Refer to Table 8 for all correlation coefficients. .

FilAmIM-FI. For Filipino ethnic identity, I hypothesized FilAmIM-FI scores would correlate highly with the MEIM and the Cultural Identity subscale of the AAMAS-CO. The

MEIM is a general measure of ethnic identity, while the AAMAS-CO Cultural Identity score indicates the degree to which one associates with people from their culture of origin (in this case, Filipinos). As hypothesized, the total FI scale had a strong correlation with the MEIM (r = .71, p < .01) and its Commitment subscale (r =. 70, p < .01), while having a moderate correlation with the MEIM Exploration subscale (r =. 51, p < .01). Correlations between the MEIM and FilAM-FI subscales were significant and mostly moderate in strength, with only a weak correlation observed between the FilAmIM-FI Identification subscale and MEIM Exploration subscale (r = .17). Additionally, the FI scale had a strong correlation with the Cultural Identity subscale of the AAMAS-CO (r = .69, p < .01), which in this case measures the degree one associates with other Filipinos.

Meanwhile, I hypothesized a modest correlation between the FilAmIM-FI scores and AAMAS-AA Cultural Identity subscale (i.e., degree of association with other Asian Americans), since a Pan Asian identity would indicate some common but not identical experience between Filipinos and other Asian Americans. Additionally, I hypothesized an inverse but modest correlation with the AAMAS-EA Cultural Identity scores (i.e. degree of association with White/European Americans), since ethnic and national identity scores tend to be relatively independent and vary by ethnic group (see Phinney & Ong, 2007 for review). A modest correlation was observed with AAMAS-AA cultural identity (r=.32, p < .01), while a weak negative correlation was observed with AAMAS-EA cultural identity (r = -.20, p <.01).

FilAmIM-FAI. For Filipino-American cultural/generational identity, there was no equivalent measure to directly compare to for concurrent validity. In defining the construct as a hybrid of Filipino ethnic identity and American national identity, I hypothesized that: (1) the FilAmIM-FAI scores would have similar correlation to MEIM and AAMAS-CO Identity scores

as the FilAmIM-FI scores did; and (2) unlike the FilAmIM-FI, FilAmIM-FAI scores would be positively correlated with AAMAS-EA scores but this correlation would be weak. The correlation with MEIM and AAMAS-CO Identity score were positive, but lower than that observed with the FilAmIM-FI scores ($z = 3.50$, $p < .001$; $z = 6.44$, $p < .001$). Notably the FilAmIM-FAI ID/Affinity subscale had a weak correlation with the AAMAS-CO identity subscale ($r = .15$, $p < .01$). Finally, correlation between the total score on the FilAmIM-FAI and the AAMAS-EA Identity subscale was non-significant ($r = .02$, $p > .05$). There was a weak correlation observed between the FilAmIM-FAI ID/Affinity subscale and AAMAS-EA Cultural Identity subscale ($r = .12$, $p < .05$).

FilAmIM-AI. For American national Identity, I hypothesized that FilAmIM-AI would be correlated with the AAMAS-EA. As expected, the two scales were strongly correlated ($r = .64$, $p < .01$). In terms of discriminant validity, FilAmIM-AI scores had weak, mostly non-significant, negative correlations with the other identity measures. This included a weak inverse correlation with the AAMAS-CO Cultural Identity subscale ($r = -.12$, $p < .01$).

FilAmIM-PAI. For Pan-Asian racial identity, I hypothesized that FilAmIM-PAI scores would be strongly correlated with the AAMAS-AA, which was observed in the data ($r = .59$, $p < .01$). In addition, I hypothesized that FilAmIM-PAI scores would have similar but weaker correlations with MEIM and AAMAS-CO Identity scores. FilAmIM-PAI was moderate correlated with the MEIM, which was smaller than correlations observed with the FilAmIM-FI ($z = 7.24$, $p < .001$). The same was also true for correlations with the AAMAS-CO ($z = 6.96$, $p < .001$).

FilAmIM-POC. For Person of Color/Allied status Identity, analyses were considered exploratory since this dimension of identity has not been previously examined. Significant

positive correlations, weak to moderate in strength were observed between FilAmIM-POC and the MEIM, AAMAS-CO, and AAMAS-AA Identity scores. Meanwhile, a weak negative correlation was observed between the FilAmIM-POC and AAMAS-EA (r = -.15, p <.01).

Discriminant Validity

To determine whether the measure constructs were relatively independent, I examined correlations between all FilAmIM scales and subscales, which are also presented in Table 8.

FilAmIM-FI. I hypothesized that Filipino identity (FI) would: (1) have at least a moderate positive correlation with Filipino American identity (FAI); (2) a negative correlation with American identity (AI); and (3) a weak to mild positive correlation with Pan Asian Identity (PAI) and POC/Allied (POC) Identity. As expected, a positive correlation, moderate in strength, was observed between the FI and FAI total scores (r = .42, p < .01). The correlations between subscales ranged from non-significant to moderate, with the Identification subscales of both FI and FAI having the weakest correlations. The hypothesized correlations were also observed between FI and AI scales, with a negative correlation, weak in strength, observed between total scale scores (r = -.20, p < .01). Finally, FI had expected correlations across scales and subscales of PAI and POC scales with weak positive correlations observed between total scale scores (r = .33, p < .01; r = .27, p < .00).

FilAmIM-FAI. In terms of Filipino American Identity, I hypothesized that: 1. Unlike Filipino identity, FAI would have a positive correlation with AI; and 2. FAI would be positively correlated with PAI and POC identity. As hypothesized, FAI and AI total scores were positively correlated, weak in strength (r = .22, p < .01). Notably, the Affiliations subscales of both FAI and AI were not significantly correlated with any of the opposite's subscales. Meanwhile, the FAI had expected correlations across scales and subscales of Pan Asian and POC Identity with

positive correlations, weak in strength, observed between total scale scores ($r = .25$, $p < .01$; $r = .30$, $p < .26$).

FilAmIM-AI. Analyses for American identity, in relation to Pan Asian and POC identity, were considered exploratory. Correlations between AI total scores and PAI and POC scores were non-significant. Only the AI Affiliation subscale had significant, negative correlations with PAI-Affiliation and POC-ID/Affiliation subscales ($r = -.17$, $p < .05$; $r = -.15$, $p < .05$).

FilAmIM-PAI/FilAmIM-POC. Finally, Pan Asian and POC identity were expected to be positively correlated. The observed correlation was significant and positive as hypothesized, weak in strength ($r = .36$, $p < .01$). The PAI-Identification subscale had non-significant to weak correlations with the POC subscales.

Psychometrics by Demographic Factors

Because degree of group identity likely varies based on demographic factors, alpha coefficients were also calculated based on generational status and multi-ethnic backgrounds. Reliabilities, means, and standard deviations for each total scale score on the FilAmIM are presented by group in Table 9.

5.4.0 FilAmIM Discussion

The purpose of this initial study was to develop and test the Filipin@ American Identity Measure, a multi-dimensional measure of group identities for Filipino Americans. Among Fil-Am young adults, principal axis factoring analyses yielded five different scales: a Filipino identity scale with four factors, along with Filipino-American, American, Pan-Asian, and POC/Allied scales with two factors each. Subsequent confirmatory factor analyses provided support for each scale as a valid construct measuring group identity, and support for the

FilAmIM as at least an acceptable measure of multiple group identities. Although not completely equivalent, each group identity (outside of Filipino identity) scale had a similar factor structure. Furthermore, the measure scales demonstrated mostly good internal consistency and concurrent validity with established measures of ethnic identity (MEIM) and cultural orientation (AAMAS). Discriminant validity was also supported when examining correlation between each FilAmIM scale.

The results provide support for assessing multiple group identities, each of which demonstrated construct validity and were relatively independent. Multidimensional measures have mostly been used in the context of cultural orientation, rather than group identity. In turn, group identity is usually examined as ethnic identity alone, which may limit understanding of how group identity impacts health outcomes. Examining multiple group identities simultaneously may more accurately depict the self-concept of Filipino Americans, and likely other ethnic groups, and their experiences in having a Filipino background while living in the United States. The measure accounts for the unique standing that Fil-Ams have in being phenotypically and ethnically Filipino, culturally American, racially categorized as Asian, and responding by creating their own group identity. Similar identity models and measurement scales could likely be applied to other ethnic groups.

Although many of the items were those adapted from previous measures, the FilAmIM primarily emphasized self-labeling and interpersonal experiences with other group members. For example, each scale contained an item on whether or not an individual perceives that they fit in with other group members. Aspects of personal identification and group interactions were also assessed through items on vicarious experiences (e.g. “I feel proud for success of other Asian Americans.”). The underlying factors were more interpersonal or relational in nature in contrast

to identity measures such as the MEIM (Phinney, 1992) and EIS (Umana-Taylor, Yazedjian, & Bamaca-Gomez, 2004), which emphasize more developmental models and resolution of one's identity. At this time, total scores on each scale should be interpreted as the degree one considers themselves a member of that group in terms of self-identification and affiliation, rather than whether they have resolved their sense identity as is the case with existing measures.

A strength of this study was its ability to test the FilAmIM in a large, relatively diverse national sample of Filipino Americans. The results and measure design support use of the FilAmIM in the broader population of Filipino Americans.

5.4.1 Limitations and Future Directions

This study and the resulting measure should be considered in light of limitations. The methodological limitations will be addressed primarily in the overall discussion section for Study 1 (Section 6.0.0). As it relates to the design of the FilAmIM, the limited age range is noteworthy, particularly since identity development has been seen as beginning during adolescence and culminating in adulthood (Yip, Seaton, & Sellers, 2006). Further, including older individuals would provide an additional basis of comparison. Future studies should test the FilAmIM in a broader age group. Related to this, the study was cross-sectional. Test-retest reliability could not be tested, nor could I examine factors that contribute to changes in degree of identification.

One major limitation is that the items and underlying factors are not equivalent across different group identity scale. The FI scale for example, contains four factors and a greater number of items, while the POC scale can be reduced to one factor. This was done based on feedback during development, and may also reflect differences in each group identity construct. However, this could not be confirmed since all equivalent item stems were not tested across scales. Additional development may also be needed to understand the underlying process of each

group identity. These may differ, as items on vicarious experiences were retained on Pan-Asian and POC/Allied identity scales but not on the other scales.

Another limitation is that the measurement properties may be questionable. Specifically use of a total scale score may not be supported for all but the FI scale. Further some subscales were not reliable. Thus, the design and psychometric properties of the FilAmIM should be considered in early development. It may be that the un-retained items should be modified or new items can be added to create a more reliable measure across all identity scales.

The measure also did not include items that assessed for Filipino-specific attitudes or values, as it has been suggested to examine ethnic identity development in conjunction with group values (Phinney & Ong, 2007). Some initial items assessed for attitudes towards a specific group (e.g. "There is a difference between Filipinos and Filipino Americans"), but were not retained based on analysis. The FilAmIM could perhaps be examined in conjunction with established Filipino specific measures such as the Enculturation Scale for Filipino Americans (ESFA; del Prado & Church, 2010)) or the Colonial Mentality Scale (CM; David & Okazaki, 2006b). Outside of providing labels for specific groups, the measure items were more generic rather than group-specific. It is possible that it would have been more efficient to directly adapt established measures such as the MEIM, as was done with the American Identity Measure (Schwartz et al., 2012).

A major limitation was that the sample was mostly composed of second generation Fil-Ams, and measure invariance was not tested by generational subgroups. Thus it is not clear if the measurement structure was equivalent across groups. For example, it may be that differentiating "Filipino" and "Filipino American" identity depended on generational status, i.e. some individuals may have responded the same on both scales. Although not formally tested, scores

for each identity scale appeared to vary by generation. First generations scored lower on Filipino American, American, and POC identities, while second generations and above scored higher on Filipino American identities. Any group differences should be interpreted with caution however.

Measurement invariance also was not tested for individuals who identified as multi-ethnic, which is important given that up to 25% of the Filipino American population identifies as multi-ethnic (U.S. Census Bureau, 2014). Previous studies have found an invariant factor structure when examining ethnic identity among multiracial adolescents, but it is not clear if similar results would be found for other group identities. I also did not examine the self-identified backgrounds of multi-ethnic participants in this study. This is important to examine in future studies, given that differences in ethnic identity have been found depending on specific group identities (Spencer, Icard, Harachi, Catalano, & Oxford, 2000).

Finally, the measure is also limited by not accounting for one's indigenous Filipino ethnic group. As discussed in the introduction, there is a wide diversity in ethnic backgrounds amongst Filipinos in the Philippines. Thus, some individuals might not identify being Filipino as their ethnic group, but rather their ethnolinguistic/indigenous group such as Ilokano, Igorot, etc. Some participants confirmed this when providing feedback about their experience in the study. Similarly, some Fil-Ams may identify more closely with Pacific Islander groups rather than Asian (Nadal, 2009). It would be difficult to incorporate each group in to a separate identity scale, although one solution may be to allow for examinees to label their group identities themselves as is done on the MEIM or other existing measures.

Related to the above, it is debatable as to whether providing labels for group identities was more useful than allowing someone to interpret "my ethnic group" or "my nationality" as is done in other measures. For example, "I question whether I should be considered American" is

likely not applicable someone whom has recently arrived to the United States and considers their nationality to be tied to the Philippines and not the United States. It was possible that some of these participants were temporary residents, e.g. international students or Overseas Filipino Workers (OFWs) whom were planning to return to the Philippines. Because of this, the nuances that may differentiate Filipino and Filipino American identities are not yet understood. It may be that if asked to identify "my ethnic group," there may be variation in whether individuals use hyphenated-American labels or simply their ethnic label (as reviewed in Yip et al., 2008). The groups were labeled as they were for standardization and comparison purposes. Perhaps future studies could determine different assessment or scoring methods to account for the possibility that individuals might not identify with the specified groups, perhaps a scoring pattern for skipped items, or identify more closely with a group that was not listed.

It could also be argued previous measures that assessed for identification with "my ethnic group," may not allow for a nuanced assessment of ethnic and group identity. Fil-Ams may identify as Filipino, Filipino American, Asian American, American, or a Person of Color to varying degrees. It is likely that this depends on previous experiences and relationships interacting with members of each group, as well as the environment in which one grows up or currently lives in. Applied to the FilAmIM, an individual may more closely identify with being Asian American if there is a broader Asian population in the local area but a limited amount of Filipinos. A similar example was illustrated in the current qualitative data, where one first generation individual associated more closely with other Asian groups than Filipino Americans.

Future studies could examine contexts that contribute to variations in degree of group identification. Although the FilAmIM assesses multiple group identities, the measure does not provide contextual information regarding the conditions in which specific group identities may

be utilized more than others. It is likely that levels of identification are dynamic over time and may in fact vary by situational context as well. Previous studies have found that aspects of ethnic identity may change with life events, ethnic densities, and interpersonal interactions. (Kiang & Fuligni, 2008; Kiang, Witkow, Baldelomar, & Fuligni, 2009; Nishina, Bellmore, Witkow, & Nylund-Gibson, 2010; Phinney & Ong, 2007; Yip et al., 2008). I attempted to account for this in earlier versions of the measure, but they were removed based on results of analysis. Future studies could perhaps develop and refine items to account for relevant contextual variables.

Primary goals for future studies should to examine identity profiles. Each group identity was treated as an independent construct, thus I could not determine how response patterns or scores on one identity scale might relate to another. Utilizing cluster analysis or latent profile analysis, may provide more information than total scale score. Such methods would be useful in identifying response profiles for this measure and understanding one's overall sense of identity, and examining potential concurrent behaviors and health outcomes.

Despite its limitations, the study provides initial evidence for the FilAmIM as a valid and reliable multi-dimensional measure of group identity for Filipino American young adults. Defining an "authentic" Filipino identity is difficult given the colonial history and ethnic diversity of the Philippines, being racially categorized as Asian despite cultural and phenotypic differences, and the multi-cultural context of the United States (e.g., Nadal, 2009). The FilAmIM attempts to bypass these issues by focusing on one's sense of belonging and self-identification, rather than cultural practice such as language proficiency. It addresses a gap in ethnic identity literature in assessing for identification with specified groups, and may help in better understanding the relative role of each aspect of identity. Similar measures could also be developed for other ethnic groups. The FilAmIM has potential to assist researchers and clinicians

in better understanding the unique variations in self-concept among Fil-Ams, a group that has long been ignored in research and practice.

6.0.0 Study 1 Overall Discussion

The purpose of Study 1 was to develop scales measuring group identity and racism experiences that are specific to the Filipino American population, in order to test a moderated mediation model for alcohol-problems in Study 2. The results provided evidence for the Filipin@ American Microaggression Scale as a valid and reliable measure of racism experiences, and the Filipin@ American Identity Measure as a valid and reliable measure of group identity. The FAMS assesses for microaggressions that are more likely to occur, but are not necessarily exclusive, to Filipino Americans and can be used in conjunction with other measures of perceived racism, which was done in Study 2. The FilAmIM, meanwhile, is multidimensional measure of group identity, which allows for a more nuanced understanding of group identity and its role in the relationship between discrimination and health outcomes.

The results of Study 1 should be considered in light of methodological limitations. The most prominent one being that the study and all of its materials were presented in English, and non-English speakers were excluded. Although English proficiency is fairly common among Filipinos, this likely would exclude individuals whom did not come from educated backgrounds prior to arriving in the United States. It's also possible that among those for whom English was a second language, words or idioms about psychological phenomena such as identity were not familiar or readily understood.

Sampling bias may have also occurred since all recruitment materials targeted those whom identify as Filipino, possibly excluding others in the community whom do not identify

with their Filipino background or distance themselves from the Filipino community. Over 50% of the study sample resided in the western U.S., which, although representative of the general population, may mask the experiences of Filipino Americans in other regions of the country. Sampling was also limited by age range and generational status, as discussed previously. It may be beneficial to specify subgroups of the Filipino American population in future studies.

Another potential limitation was the reliance on Internet-based data collection. It was possible that individuals whom did not eligibility criteria were entered in to the study and the validity of self-report is also limited. Further, the data collection method could potentially bias the sample if individuals did not have regular access to the Internet. Nonetheless, steps were taken to minimize invalid data including confirmation of screening data, paying participants by check (which would require a valid name), and ensuring confidentiality of all responses (Babor, Stephens, & Marlatt, 1987; Chermack, Singer, & Beresford, 1998; Darke, 1998).

On its own merits, Study 1 advances current research literature by developing measurement scales that are group specific. The measures allow for a better understanding of the Filipino American experience, and perhaps more accurate interpretation of findings regarding ethnic group identity and perceived racism in this population.

7.0.0. Study 2: Main Outcome Study (Aims 3-4).

7.1.0 Study 2 Methods

7.1.1 Recruitment and Screening.

The same screening and consent procedures from Study 1 were followed, with some modifications to the recruitment strategy. Recruitment was no longer conducted through CraigsList, and Study 1 participants whom indicated interest were invited to also complete Study

2. During Study 2 recruitment, Facebook's paid advertisement service expanded its reach to Instagram users, an online mobile photo and video sharing social networking service. All paid advertisements were targeted towards individuals in the specified age group, identifying as Asian ethnic affinity, and with interests in the Filipino American community. Targeting included individuals with interests in "Filipino", "Filipino American", "Filipino food," Filipino language," among other terms.

In all, 851 individuals completed the Study 2 screening. Additionally, 365 participants Study 1 participants, whom provided permission for future correspondence, were invited to participate in Study 2. A total of 1075 invitations were sent to potential participants, with 759 responding and providing consent and 3 declining consent. Out of the Study 2 sample, 35.2% of participants had also completed Study 1. The majority of participants were recruited through Instagram (36.7%), while 26.9% were recruited via Facebook (either paid advertising or shared posts). 12.8% were recruited via e-mail announcements circulated to Filipino American student and community organizations, while 18.9% via snowball sampling. The remainder was recruited via other means such as study flyers and Twitter. Recruitment and screening took place between September 2015 and April 2016.

7.1.2 Procedures

Study 2 procedures were almost identical to Study 1, i.e. participants received emails with invitation to the survey, logged consent online, could complete the survey at their convenience, and received reminder correspondence. The Study 2 measure battery was beta tested to ensure they took no longer than 45 minutes. Due to the length of the survey battery, several steps were taken to minimize and/or detect careless responding and screen for data quality. To mimic a "virtual presence" and humanize the survey process (Ward & Pond, 2015),

the survey battery contained video messages from the study investigator and progress screens that outlined upcoming sections of the survey and encouraged participants to take a break if needed. Additionally, instructed response questions were embedded at several points in the survey battery, e.g. "Select 'Never' from the response options below." For completion, each participant received $20 plus entry in to a drawing for 1 of 8 $50 gift cards to Amazon.com.

7.1.3 Sample Description

Of the 759 who responded and provided consent, 565 participants responded and completed the survey battery. On average participants were 22.43 years of age (*SD* = 3.48): 37% were under the age of 21, 42.5% were between 21 and 25, and 20.5% were ages 26 to 30. Over half of participants (55.90%) were female, with one participant identifying as non-gender conforming. Over 80% of the sample identified their sexual orientation as heterosexual, with 18.1% identifying as non-heterosexual, i.e. lesbian, gay, bisexual, or questioning. One hundred twenty four participants identified as having a multi-ethnic (non-Filipino) background (21.90%), which is approximately representative of Filipino American national demographics. In terms of generational status, 65.7% of the sample was 2nd generation and above (i.e., born in the U.S.), while 13.0% were 1st generation (i.e., born in the Philippines or other country outside of U.S., immigrated after age 13) and 21.3% were 1.5 generation (i.e., born outside of U.S., immigrated prior to age 13). The length of residence for 1st generation and 1.5 generation participants ranged from 0 to 29 years (*M* = 11.53, *SD* = 6.68*)*. Using regions designated by the U.S. Census Bureau, participants resided primarily in the Western region of the United States (56.1%), 13.1% in the northeast, 8.8% resided in the Midwest, and 21.9% in the South.

Based on feedback from Study 1, participants also indicated their Filipino indigenous/ ethnolinguistic background(s). The most common groups were Tagalog (55.4%), Ilokano

(23.4%), Visayan (20.2%), Kapampangan (8.0%), and Pangasinan (7.1%), while 11.5% indicated they did not know their Filipino indigenous background.

7.1.4 Measures

The measures are presented below and are organized according to the variables of interest.

Outcome Variables: Alcohol Use and Related Problems

Alcohol-Related Problems. Current drinkers completed the Young Adult Alcohol Problems Screening Test (YAAPST; Hurlbut & Sher, 2011), a 27-item questionnaire assessing alcohol related negative consequences. The YAAPST was modified to assess for frequency of consequences in the past 3 months. Participants indicated the number of times each consequence happened in the past 3 months and if not in the past 3 months, whether or not it occurred at least once in their lifetime. The YAAPST includes eight items on more common consequences (e.g. feeling ill due to drinking) with nine response options ranging from 1 to 40 or more times in the past 3 months, twelve items on less typical problems (e.g. relationship problems resulting from drinking) with three response options ranging from 1 to 3 times, and eight items indicating more severe drinking problems (e.g. seeking professional help for drinking) which were scored dichotomously as having occurred in the past 3 months. YAAPST scores were estimated for individuals who completed at least 80% of the items. Three scores can be derived from the YAAPST: a Severity score where a higher score indicates more frequent experience of consequences, a Total score indicating the number of different consequences experienced in the past 3 months (ranging from 0-27), and Lifetime score indicating number of different consequences experienced over one's lifetime (ranging from 0-27). The YAAPST Total score was used in current analyses. Cronbach's alpha was .83, suggesting good internal consistency.

Alcohol Use. Drinking quantity was assessed with the Daily Drinking Questionnaire (DDQ; (Collins, Parks, & Marlatt, 1985; Kivlahan, Marlatt, Fromme, Coppel, & Williams, 1990). The DDQ includes items reporting average number of standard drinks consumed and time period for each day of the week. The reference period for Survey 2 was for drinking patterns in the previous 3 months. Participants were asked to report the typical drinking quantity and hours for each day of the week in the past 3 months. Responses were then summed to indicate average number of drinks per week.

Independent Variables (Aims 3-4)

Perceived Discrimination/Microaggressions. Filipino-specific microaggressions were assessed using the 19 items from the FAMS, developed in Study 1. Participants rated the degree to which they experienced each particular microaggression in the previous three months using the following scale: *1 = less than once a month, 2 = a few times a month, 3 = about once a week, 4 = a few times a week, 5 = daily*. If it did not occur in the previous 3 months, participants indicated whether a specific microaggression occurred in their lifetime. A total score was calculated to indicate the frequency one has experienced Fil-Am microaggressions in the past 3 months. A lifetime score was also calculated, indicating the number of different Filipino-specific microaggressions one has experienced in their lifetime and ranged from 0-19. The total score was used in the current analysis. The reliability coefficient for Study 2 was .87.

General experiences with racism and non-ethnic specific microaggressions were assessed with the Daily Life Experiences subscale from the RALES (RALES-DLE; Harrell, 1997). The RALES-DLE contains 20 items assessing microaggression experiences such as disrespectful treatment, being called fascinating or exotic or being stared at and followed in public places. Except for specific items, the instructions did not indicate whether these events occurred because

of one's race or ethnicity. The response scale was modified to be equivalent to that used in the FAMS, as described above. A total score was calculated to indicate the frequency one has experienced general forms of microaggressions in the past 3 months, while a lifetime score was also calculated and ranged from 0-20. The RALES-DLE has been used with Filipino American samples with evidence for construct validity and reliability (Alvarez et al, 2006; Alvarez et al., 2010). The total score was used in the current analysis. Reliability in the current study was .92.

FAMS and RALES-DLE scores were significantly correlated ($r = .56$, $p < .001$), which provided additional evidence for concurrent validity on the FAMS. RALES-DLE and FAMS scores were entered separately in to analyses, to test for incremental validity of the FAMS.

Coping Behavior: Coping behavior was assessed with the Brief COPE (Carver, 1997), a 28 item measure based off of the COPE, and 8 items from the Coping With Discrimination Scale (CDS; Wei et al., 2010). The Brief COPE typically contains 14, 2-item factors and overall reliability has been reported at .68. The items from the CDS were from its Education/Advocacy and Resistance, subscales. Reliabilities have ranged from .72 to .90 for each subscale. Similar to the study by Alvarez and Juang (2010), the prompt for all coping items asked participants to describe how they have usually responded to discriminatory events. A principal axis factoring analysis was conducted to determine higher order factors with the study sample. Five higher order factors emerged, 4 containing items primarily from the COPE and 1 with items primarily from the CDS: (1) Avoidant Coping, containing items on self-distraction, denial, substance use, and behavioral disengagement; (2) Active/Forbearance coping, which also contained items on positive reframing, planning, acceptance, and religion; (3) Social Support, which assessed for seeking emotional support, instrumental support, and venting emotions; (4) Humor; and (5) Advocacy/Resistance, which assessed strategies such as confronting an individual or educating

others about racism. For all items, participants rated their coping response on a 4-point scale from *1 (I usually don't do this at all)* to *4 (I usually do this a lot)*. Mean scores were calculated for each factor, with higher scores interpreted as a higher degree to which the individual used that type of coping strategy. Descriptive statistics, including reliability coefficients were as follows: Avoidant Coping (α = .75), Active/ Forbearance Coping (α = .78), Social Support (α = .81), Humor (α = .86), and Advocacy/Resistance (α = .86).

Group Identity. The final version of the FilAmIM developed in Study 1 was administered to assess the degree of social group identity. Total scale scores were used in the present analyses, which were derived from 15 items assessing Filipino Identity (FilAmIM-FI; ethnic identity), 10 items assessing American Identity (FilAmIM-AI; national identity), 8 items assessing Filipino American Identity (FilAmIM-FAI; cultural/generational identity), 7 items assessing Pan-Asian Identity (FilAmIM-PAI; racial identity), and 7 items assessing Person of Color/Allied Identity (FilAmIM-POC; status/allied identity). Reliability for each identity scale was as follows: Filipino Identity (α = .85), American Identity (α = .82), Filipino American Identity (α = .83), Pan-Asian Identity (α = .80), and POC/Allied Identity (α = .81).

7.1.5 Data Analytic Plan

All data was entered on the web via DatStat Illume, and subsequently downloaded into SPSS for analyses. All descriptive analyses were done using SPSS Version 21, while the statistical models were analyzed using MPlus Version 7.4 (Muthen & Muthen, 2015). Only current drinkers were included in the present analyses.

Data Screening. Data were screened for the presence of missing data and univariate and multivariate outliers, using procedures outlined by Tabachnick and Fidell (2001). It was possible for participants to decline responding to specific questions (i.e. user-defined missing data), while

"N/A" responses on the FilAmIM were also treated as missing. For each psychometric scale, scores were calculated only if participants completed at least 80% of items. Overall, 5.62 % of the cases contained missing data, but all variables of interest had low missingness (< 2.5%%). Due to low missingness, missing data was imputed using expectation maximization method (Little & Rubin, 1987).

Screening for outliers on each variable of interest was conducted first by examining box plots for extreme values. Extreme outliers (i.e. more than 3 standard deviations above the mean) were limited to a value at 3 SD above the mean. Multivariate outliers were identified by examining studentized residuals, and Leverage and Cook's Distance scores were also examined to identify influential cases.

To screen for careless responding (Ward & Pond, 2015), data was closely examined for cases who met the following criteria: (1) responded incorrectly on the instructed/forced response questions; (2) had minimal variance (i.e., $SD < .5$) on strings of same scale Likert items, which would indicate identical or repeated responses; and/or (3) responded inconsistently on different alcohol measures that were included in the survey battery, e.g. indicated drinking more on a typical weekend evening than the total number of drinks consumed in a typical week.

Analyses. The following analyses were conducted: (1) Descriptive Data Analysis*:* Sample characteristics and univariate distributions.

(2) Bivariate Analyses: Bivariate analyses examined the associations between each independent variable and dependent variable (using chi-square, t-test, ANOVA, or logistic regression as appropriate). Bivariate correlations were computed between all study variables and scatter plots were examined to detect outliers or other distributional abnormalities.

(3) Multiple Regression: Negative binomial regression was used to predict the number of

alcohol related problems in the past 3 months (Atkins & Gallop, 2007; Coxe, West, & Aiken, 2009). YAAPST scores were treated as count variables, and distribution for the variable was positively skewed and overdispersed. Regression coefficients were calculated using robust expectation solution, which are less sensitive to the presence of outliers (e.g. Hall & Shen, 2010). All variables were entered simultaneously and Incidence Rate Ratios, i.e. exponentiated regression coefficients, were calculated for each variable.

(4) Mediation: A multiple mediation model was then used to test the total indirect effect of both daily and Filipino-specific microaggressions on alcohol related problems, i.e. the aggregate effect under all 5 coping styles as mediators, and the specific indirect effect of, i.e. the mediating effect of a specific mediator (Preacher & Hayes, 2008). (*H3b*). Weekly drinking quantity was included as a control variable. Bootstrap analysis with 1,000 random samples was used to test the significance of each indirect effect. Bootstrapping is considered a robust method to examining statistical significance since it effectively controls for Type I error rates and does not impose assumptions of normality (Preacher & Hayes, 2008). To test for mediation, a parameter estimate of each specific indirect effects and their respective confidence intervals was generated by using the 1,000 random samples. The specific indirect effects (i.e., *ab*) or the product of the two regression coefficients between perceived racism/microaggressions and alcohol related problems through each mediator was calculated. If the 95% bias-corrected confidence interval for the parameter estimate did not contain zero, then the specific indirect effect was statistically significant and mediation was demonstrated (Mallinckrodt, Abraham, Wei, & Russell, 2006; Preacher & Hayes, 2008). The regressions predicting alcohol related problems used a negative binomial distribution. Thus as an alternative, estimation of mediation effect was also tested by calculating natural indirect effects. These are counterfactual-based causal

definitions of indirect effects (Muthén, 2011; Muthén & Asparouhov, 2014). At this time, MPlus only calculates direct and indirect effects using causal inference statistics for count outcomes when a single mediator variable is used. Therefore, the natural indirect effect for each mediator was estimated by running separate, single mediator models.

(5) Moderated Mediation: Tests for moderated mediation assessed whether group identity moderated the hypothesized mediating relationship (*H4*). Because of power and measurement concerns and because of support from previous literature, only Filipino and American Identity scales were included as moderators. Moderated mediation implies the indirect effect between the independent and dependent variables depends on the moderator(s) (Muller et al., 2005). The proposed conceptual model is presented in Figure 1. Specifically, I tested whether the partial effect of racism/microaggression on coping depends on Filipino and American identity configuration and if the partial effect of coping on alcohol-related problems depends on Filipino and American identity configuration, or both. Three-way interaction terms multiplying racism/microaggressions, Filipino identity, and American identity were added to the regressions predicted coping type. In turn, three-way interaction terms multiplying coping type, Filipino identity, and American identity were added to each regression predicting alcohol problems.

The moderated mediation models tested for conditional indirect effects. Indirect effects were calculated at differing levels of the moderating variables. As such, 95% percentile confidence intervals are constructed. For each particular level of the moderators, indirect effects are considered statistically significant if the 95% bias-corrected confidence intervals do not include zero (Preacher, Curran, & Bauer, 2006). The interactions were probed at 1 SD above the mean and 1 SD below the mean of each moderating variable.

Power. Study 2 was powered to test for mediation (*Aim 3*). There are currently no power

formulae and no previous estimates from which to draw effect-sizes for moderated-mediation. Sample size estimation for mediation is still an active area of statistical research, particularly beyond simple mediation with normally distributed outcomes. Vittinghoff and colleagues (2009) have described power and sample size formulae for mediation in logistic, Poisson, and Cox (i.e., survival analysis) models with either continuous or binary main and mediator covariates. By casting the problem in terms of surrogate markers and using the variance inflation factor, Vittinghoff and colleagues were able to derive exact formulae, as opposed to relying on simulation-based methods. Power analyses were based on estimates from previous studies. The estimated mean for drinks consumed by Fil-Ams was 4 drinks per week (Lum et al., 2009). Discrimination and coping were assumed to correlate at 0.20 (Hatzenbuehler et al., 2011), a medium correlation. Assuming a rate ratio of .95 for coping on drinking, a sample size of 800 would have provided 0.80 power to detect a significant reduction in the main effect of discrimination on drinking.

7.2.0 Results: Study 2

7.2.1 Data Screening

Of the 565 total participants, 510 consumed alcohol at least once in their lifetime and 451 were classified as current drinkers, i.e. consumed at least one alcoholic beverage in the past 3 months. There were 5 participants who declined to answer any alcohol questions. Among current drinkers, 6 were removed from analyses because they indicated they had never drank in their lifetime. As a result of this response pattern and the programming of the online survey, they were not administered the alcohol outcome measures. An additional case was removed due to inconsistent responding on alcohol outcome measures and providing incorrect responses on 3 of

4 instructed/forced choice response questions. Thus a total of 444 cases were included in the present analyses.

No additional concerns for extreme outliers and influential cases were detected in the present sample. Collinearity among independent variables was also not a concern, based on tolerance values greater than .10 and variance inflation factors less than 10.

7.2.2 Descriptive Statistics

A summary of descriptive statistics and correlation matrix for the main study variables is provided in Table 10.

Because I did not expect age to have a linear relationship with alcohol use, participants were divided in to three age groups: (1) 18-20 years for individuals who were not U.S. legal drinking age; (2) 21-25 years since drinking tends to decline for most young adults after age 25 (e.g., Johnston, O'Malley, Bachman, & Schulenberg, 2013); and (3) 26-30 years. Using the full sample, chi-square analyses revealed that the 18-21 age group had a significantly greater proportion of lifetime abstainers (17% vs. 3.3% and 3.4%, respectively; = 32.79, $df = 2$, $p < .001$) and current abstainers (36.8% vs. 9.6% and 9.8 % respectively; = 61.27, $df = 2$, $p < .001$).

In terms of experiences with racism, 90.6% of participants reported being subjected to at least one Filipino-specific microaggression in the previous 3 months. The mean was 9.93 (SD = 10.57). Meanwhile 90.2% reported at least one incident of general microaggression in the past 3 months. The mean was 11.95 (SD = 12.43).

In terms of coping with discrimination experiences, participants reported the most consistent use of Support Seeking/Emotion Expression coping strategies (M = 2.78, SD = .71), followed by Active/Forbearance coping (M = 2.73, SD = .59), Humor coping (M = 2.44, SD

= .99), Advocacy/Resistance coping (M = 2.39, SD = .75), while Avoidant coping (M = 1.94, SD = .99) was the least frequent.

In terms of alcohol use, 75% of current drinkers indicated consuming at least 1 standard drink per week (M =4.29, SD = 5.80). Approximately two-thirds (66.7%) of current drinkers reported experiencing at least one negative consequence in the past 3 months. Lifetime and past-3 month prevalence rates for each consequence, along with descriptive statistics for overall YAAPST scores, are presented in Table 11. The most common consequences included: experiencing a headache or hangover after drinking, feeling ill or vomiting due to drinking, blackouts, feeling guilty about drinking, increased tolerance, and others complaining about drinking.

7.2.3 Bivariate Analyses

Preliminary analyses were conducted to determine relationships between demographic variables and the variables of interest. One-way ANOVAs revealed that experience of discrimination/general microaggressions, microaggressions towards Filipinos, and avoidant coping varied by age group. Post hoc comparisons using Bonferroni correction revealed that individuals in the 26-30 year age group experienced less frequent discrimination/ microaggressions in the past 3 months than the younger age groups, while those 18-20 years reported greater levels of avoidant coping.

Additionally, group identity scores, and active/forbearance coping varied by generational status – when comparing individuals whom are 1st generation, 1.5 generation, and 2nd generation and above. Post hoc comparisons revealed that 2nd generation and above individuals a higher sense of American and Filipino-American identity than both 1st and 1.5 generations, and greater

sense of POC/Allied Identity than 1st generation. Those who identified as 1st generation utilized active/forbearance coping more so than 1.5 and 2nd generations.

Differences by region were also revealed, whereby individuals whom lived in the South region of the U.S. reported greater lifetime experiences of discrimination/ general microaggressions. Differences by sexual orientation were observed in American identity, microaggressions, avoidant and advocacy coping, and drinking quantity. Specifically, individuals who identified as bisexual reported greater levels of general microaggressions and avoidant coping, while reporting lower levels of American identity in comparison to individuals identifying as straight/heterosexual. All individuals who identified as non-heterosexual scored higher on advocacy/resistance coping in comparison to heterosexual. Finally, differences by education level revealed greater lifetime microaggressions for individuals with a Bachelor's degree or above, but lower frequency of microaggressions in the previous 3 months.

T-tests revealed differences by sex in all variables of interest. Specifically, females reported more frequent microaggressions and use of support seeking coping, while males reported higher levels of American identity, active/forbearance coping, and humor coping. Individuals whom identified as multi-ethnic (i.e., at least one non-Filipino ethnicity) reported higher levels of general microaggressions.

7.2.4 Negative Binomial Regression

All variables of interest were entered simultaneously to predict the count of alcohol related problems in the past 3 months. The demographic variables described in the preliminary analyses were included as control variables, with generational status and sexual orientation being collapsed in to two categories (i.e., US born vs. non-US born, and Hetero vs. LGBQ,

respectively). Each dichotomous variable was dummy coded, while age group, region, and education level were contrast coded. Weekly drinking quantity was also included as a covariate.

See Table 12 for results. Ages 18-21 as opposed to ages 21-25 (*IRR* =1.20, $p = .04$), weekly drinking quantity (*IRR* = 1.06, $p < .001$), social support seeking coping (*IRR* = 1.19, $p = .03$) and avoidant coping (*IRR* = 1.68, $p < .001$) were more likely to be associated with alcohol problems. In contrast, individuals aged 26-30 years when compared to those 21-25 years (*IRR* = .78, $p < .01$), and Pan-Asian identity (*IRR* = .77, $p = .001$) were less likely to be associated with alcohol problems.

7.2.5 *Multiple Mediation*

Table 13 contains the parameter estimates and bias-corrected confidence intervals for the indirect effects of microaggressions on alcohol-related problems through active/forbearance, support seeking, avoidance, advocacy/resistance, and humor coping. Indirect effects were calculated separately for both general microaggressions and Filipino-specific microaggressions. Demographics variables were controlled for in predicting the mediators and outcome variable, while both demographics and weekly drinking quantity were controlled for in predicting alcohol-related problems.

For general microaggressions, only the indirect effect of avoidance coping was significant based on product of coefficients methods. More frequent experience of general microaggressions was positively associated with avoidant coping ($B = .18$, $p < .01$), which in turn was associated with increased drinking problems (*IRR* = 1.49, $p < .01$). The indirect effect through support-seeking coping also approached significance. General microaggressions was associated with emotional expression/seeking support coping ($B = .10$, $p < .05$), which in turn was also associated with increased drinking problems (*IRR* = 1.30, $p < .01$). Examination of

counterfactual-based estimates, i.e. natural indirect effects, revealed that indirect effects through either form of coping did not reach but were approaching significance.

A similar pattern of findings was revealed for Fil-Am specific microaggressions, whereby only the indirect effect of avoidant coping was significant based on product of coefficients. The indirect effect was not significant based on counterfactual-based estimates. Fil-Am specific microaggressions were positively associated with avoidant coping ($B = .17$, $p < .01$), which was associated with increased drinking problems ($IRR = 1.49$, $p < .01$). Notably, Filipino-specific microaggressions were significantly associated with active/forbearance coping ($B = .20$, $p < .001$) and advocacy/resistance coping ($B = .17$, $p < .001$), which was not the case for general microaggressions. See Figure 8 for regression coefficients for each partial effect.

For exploratory purposes, I also examined results of the multiple regressions predicting each type of coping. Active/forbearance coping was positively associated with Filipino identity ($B = .19$, $p < .001$), American identity, ($B = .17$, $p < .01$) and being male ($B = -.09$, $p < .001$). Advocacy coping was significantly associated with POC/Allied ($B = .37$, $p < .001$) and Filipino-American ($B = .20$, $p < .001$) identities. Humor coping was associated with being male ($B = -.15$, $p < .01$), Pan Asian ($B = .13$, $p < .01$) and American identity ($B = .18$, $p < .001$). Support-seeking coping was associated with POC/Allied ($B = .14$, $p < .01$), Filipino ($B = .15$, $p < .05$), and American identity ($B = .10$, $p < .05$). Finally avoidant coping approached significance in being used less by those aged 26-30 ($B = -.10$, $p = .06$), in comparison to ages 21-25.

7.2.6 Moderated Mediation

The moderated mediation model tested for conditional indirect effects, where the mediating relationships would depend on levels of Filipino (ethnic) and American (national) identity. Conditional indirect effects at different levels of the moderators are presented in Table

14. For parsimony, the configuration of Filipino and American identity scores will be labeled according to previous acculturation and identity models (e.g. Berry, 2003; Nadal, 2004): (1) Individuals low (i.e., -1 *SD*) in both ethnic and national identity could be considered as having a *Marginalized/Pre-Encounter Identity*, not identifying with either group or culture; (2) those low (i.e., -1 *SD*) in ethnic and high (i.e., +1 *SD*) in national identity could be viewed as having an *Assimilated Identity*, i.e. distancing from other Filipinos or unaware of Filipino identity and preferring affiliation with Whites while identifying more as American; (3) being high in ethnic (i.e., +1 *SD*) and low (i.e., -1 *SD*) in national identity is similar to *Ethnocentric/Immersion Identity*, i.e. a sense of identity centered on other Filipino people and culture while distancing from Whites and dominant American culture; and (4) being high (i.e., +1 *SD*) in both ethnic and national identity represents *Integrated/Dual Identification*, i.e. an appreciation and acceptance for both groups and cultures.

Avoidant Coping. Reviewing the conditional indirect effects of both general and Filipino-specific microaggressions through avoidant coping, the indirect effects were significant for individuals with Assimilated identity when using product of coefficients methods. When comparing indirect effect sizes for both types of microaggressions, indirect effects from largest to smallest were: Assimilated, Marginalized, Integrated/Dual, then Ethnocentric. In both cases, there was significant 3-way interaction in the partial effect of microaggressions on coping ($b = .007$, $p = .02$; $b = .009$, $p = .05$). Figure 9 depicts the nature of these interactions. The frequency of avoidant coping strategies appeared to increase with greater experiences of microaggressions for Assimilated, Marginalized, and Integrated/Dual identity groups, while less so for Ethnocentric identities. For Ethnocentric Identify profiles, avoidant coping appeared to be utilized at greater levels. However tests of simple slopes were non-significant. For interpretation

sake, I also plotted the predicted values of the number of alcohol related problems for different combination of values on the predictor variables (see Figure 10). In this case -1 SD and +1 SD for American and Filipino identity and the middle 95% of the distribution for avoidant coping. Because this was a count variable, this required entering a specific combination of values of avoidant coping, Filipino identity, and American identity, in to the regression equation and then exponentiating the predicted value (Atkins & Gallop, 2007, see Figure 5). It appeared that increased use of avoidant coping increased risk for drinking problems more so for Assimilated identity, but this should be interpreted with caution given that the interaction was non-significant.

Support Seeking. For support-seeking coping, there were no significant conditional indirect effects. Looking at the pattern of conditional indirect effect estimates for both Filipino-specific and general microaggressions, the indirect effect was negative and approaching significance for individuals with Integrated/Dual Identity while positive for the other three profiles. Examining the significant 3-way interaction on the partial effect of general microaggression on support seeking coping (b = -.01, p = .02), use of support seeking coping for Integrated/Dual Identified individuals appeared to decrease under conditions of greater microaggressions while appearing to increase for Assimilated Identity.

Active/Forbearance Coping. The conditional indirect effect of Filipino-specific microaggressions through active/forbearance coping was significant for individuals with Assimilated identity when using product of coefficients methods. A near significant 3-way interaction was observed in the partial effect of active/forbearance coping on alcohol-related problems. Again, the interaction was interpreted by plotting the predicted values of the number of alcohol for -1 SD and +1 SD for American and Filipino identity and the middle 95% of the distribution for active/forbearance coping (see Figure 12). It appeared that use of

active/forbearance coping was associated with decreased rate for alcohol related problems for individuals with Assimilated identity, and with increased rate among individuals with marginalized identity. The predicted count for all identity profiles across all active/forbearance coping scores was less than 0. For interpretation sake, I also plotted the non-significant interaction of Filipino-specific microaggressions on active/forbearance coping (see Figure 13), whereby use of active/forbearance coping appeared to increase under higher microaggressions across all groups, particularly for Assimilated Identity.

Advocacy/Resistance Coping. Conditional indirect effects for advocacy/resistance coping were non-significant. Estimated indirect effects appeared strongest for individuals with Assimilated identity, and were negative for individuals with Marginalized and Ethnocentric identity. The 3-way interaction term approached significance in the partial effect of advocacy coping on alcohol related problems (b = -.31, p = .09). The predicted counts of alcohol-related problems were plotted in Figure 14. It appears that for individuals with Assimilated Identity profile, increased use of advocacy/resistance coping was associated with increased risk of alcohol related problems, however the predicted count for all identity profiles across all humor coping scores was less than 0.

Humor Coping. Finally, the conditional indirect effects for humor coping were non-significant. A 3-way interaction was observed for the partial effect of Humor coping on alcohol-related problems (b =.35, p = .02), which is depicted in Figure 15. It appeared that use of Humor coping was associated with decreased rate for alcohol related problems for individuals with Assimilated identity, however the predicted count for all identity profiles across all humor coping scores was less than 0.

8.0.0 STUDY 2 (MAIN) DISCUSSION

The results of the present study contribute to the growing literature on the impact of racism on behavioral health, and for Filipino Americans in particular. Despite the continued expansion of the Fil-Am population across the U.S., behavioral health and problematic alcohol use among this community remains relatively understudied. Further, better understanding the impact of racism remains important given reports of frequent discrimination among Fil-Ams, a pattern that was confirmed in this study. Among the Fil-Am young adults in this study, 90% reported experiencing at least one microaggression during the prior 3 months.

An important caveat in the perceived racism literature is that the individual must perceive the event to take place in order to report it, and participants in this study did not rate distress associated with discriminatory events. Even so, there appeared to be potentially harmful consequences for consistent exposure to events that some (including the target) may perceive as innocuous. The current study provided further insight in to potential mechanisms by which experiences with racism may negatively impact health outcomes.

Among current drinkers, the analyses revealed that experiencing microaggressions of any kind were not directly associated with recent (past 3 months) negative consequences resulting from drinking. Thus, the first study hypothesis was not supported. Rather, microaggressions had a near significant indirect effect on alcohol consequences, through the manner in which individuals coped with racism and discrimination during that 3-month period. Although this was not originally expected, the result is reasonable given that experiencing drinking problems would require participants to consume at least some quantity of alcohol within that time, and weekly drinking habits widely varied in the sample. This is a similar result to a previous study examining drinking among U.S. based college students, whereby perceived discrimination had

an indirect effect on drinking problems through alcohol use coping motives and negative affect (Hatzenbuehler et al., 2011). The finding is also consistent with a previous study of Fil-Am adults, whereby perceived racism did not have a direct effect on mental health outcomes (Alvarez & Juang, 2010).

8.1.0 Coping as a Mediator (Aim 3)

One of the primary objectives of the study was to address the influence of coping behaviors on drinking-related problems, controlling for drinking quantity. The impact of microaggressions appeared to be mediated by certain coping strategies. In particular, the meditational role of avoidance coping approached significance, whereby avoidance coping had a positive association with alcohol-related problems. This result is consistent with previous studies examining coping strategies for dealing with general distress and coping motives for consuming alcohol (e.g., Cooper, Frone, Russell, & Mudar, 1995; Ralston & Palfai, 2012). Efforts to cope with microaggressions and other discriminatory experiences through strategies such as denial, distraction, and alcohol or substance use appear to exacerbate risk for harmful consequences including drinking-related problems.

The indirect effect of microaggressions on alcohol problems mediated by emotional expression/support seeking coping also approached significance, whereby more frequent use of strategies was associated with increased alcohol problems. Although seemingly counterintuitive, this finding is actually consistent with previous works with Filipino American and Asian American men (Alvarez & Juang, 2010; Iwamoto & Liu, 2009). Authors of these studies suggested that seeking support may not be an effective strategy, possibly because self-disclosure may not conform to cultural expectations and therefore may elicit more distress. Further,

support-seeking strategies are typically used when stressors are perceived as unchangeable (Lazarus, 2006) and thus it was suggested that seeking emotional support might contribute a further sense of hopelessness about racism.

Within this study, support-seeking strategies included seeking out others in order to provide relief from emotions, which in its own way can be a form of avoidance. This is in contrast to advocacy or active coping strategies, which function to either directly deal with a situation or empower a person to combat discrimination at an individual or societal level, as well as forbearance strategies where an individual finds acceptance or spiritual meaning for an event and any distress associated with it. An additional consideration is that simply seeking support from others does not account for the quality of support one may receive. For example, one may be dismissive of one's emotional response to microaggressions – which can be expected given their innocuous nature and the "catch-22 of responding to microaggressions", whereby an individual's experience with racism may be invalidated by others or simply seen as being "too sensitive" (Sue et al., 2007). In the context of alcohol use, this may also manifest as drinking for both social and coping reasons, both of which can contribute increased alcohol use and related problems (e.g., Carpenter & Hasin, 1999; Cooper et al., 1988). For example, an individual may seek support from others who in turn may encourage them to drink together and "forget" about what happened.

The other coping strategies assessed in this study were not significantly associated with alcohol problems. It is possible that these have indirect effects on drinking problems through other mental health outcomes, e.g. through emotional distress and heavy drinking in turn, as protective effects of active/forbearance coping have been observed in previous studies. Future

studies are warranted to further examine the mechanisms by which experiences of racism impact problem drinking through these coping strategies.

8.1.1 Differential Effects of Microaggression Types

It is noteworthy that although the pattern of indirect effects was similar for both general and Filipino-specific microaggressions, there were differences in partial effects on specific coping strategies. Specifically, Filipino-specific microaggressions had a significant association on active/forbearance, advocacy/resistance, and humor coping, which was not the case for general microaggressions. It could be that Filipino-specific microaggressions have different personal meaning or relevance than general microaggressions, which therefore lead to different coping strategies. For example, if one perceives that a microaggression is directly related to their Filipino background, then that individual may use strategies that are either more culturally congruent such as religion (e.g., Noh & Kaspar, 2003); or perhaps they make greater offense and would be more motivated to confront an offender. However, the meaning and stress appraisal of specific microaggressions were not assessed in this study. It perhaps then, may be more useful for future studies to include stress appraisal of specific events, to further understand the nature of these differential findings.

8.2.0 Moderated Mediation: Group Identity as a Moderator (Aim 4)

The last aim of this study was to address the role that group identity may play on the potential adverse effects of discrimination. What may have accounted for equivocal findings in previous studies, whether in support of a stress buffering or an exacerbation effect, is that they examined ethnic identity in isolation, not taking in to account that individuals may identify with multiple social groups depending on nationality, cultural upbringing, etc. The current study

addressed this by examining multiple dimensions of group identity. I examined the role of group identity within a stress-coping framework, i.e. the potential moderating roles of group identities in the mediated relationship between ethnic identity and coping. Specifically I tested for moderator effects of Filipino and American identity in the partial effect of microaggressions on specific coping strategies, and in the partial effect of coping strategies on alcohol problems controlling for drinking quantity.

8.2.1 Avoidant Coping

The partial effect of perceived racism on avoidant coping depended on levels of Filipino (ethnic) and American (national) identities, with similar patterns observed for both general and Filipino-specific microaggressions. The conditional indirect effect was significant for individuals with Assimilated (i.e., Low Filipino, High American) identity profiles. On closer examination, the frequency of using avoidant coping strategies appeared to increase with greater experiences of microaggressions for the Assimilated, Integrated/Dual, and Marginalized identity groups. Those with Ethnocentric Identity appeared to utilize avoidant coping strategies more frequently, regardless of exposure to microaggressions. Meanwhile, those with Assimilated Identity appeared to be at highest risk for experiencing alcohol-related problems.

Unlike the study by Huynh, Devos, & Goldberg (2014), an Integrated/Dual Identification did not have protective effects. It could be that the moderating role of Integrated/Dual Identification varies on whether it is a mental health outcome or a behavioral outcome such as coping strategies. Having an Assimilated Identity, meanwhile appeared to yield the greatest risk in using avoidant coping strategies under increased perceived racism, which in turn impact discrimination's indirect effect on alcohol problems. Applying Lazarus & Folkman's 1984) stress and coping theory, it could be that individuals with Integrated/Dual, Marginalized, or

Assimilated identities do not appraise microaggression experiences as potentially harmful or threatening unless they experience them more on a frequent basis. In turn, these individuals may appraise that the threat from these events exceeds their coping resources and resort to avoidant coping as a result. Thus, exposure to microaggressions may increase risk for alcohol-related problems through use of avoidant coping more so when it occurs on a chronic basis.

For those with an Ethnocentric Identity profile, avoidant coping appeared to be utilized regardless of frequency of exposure to microaggressions, and thus the indirect effect was non-significant. In applying stress and coping theory, it could be that these individuals have a lower threshold in appraising threat from racist events and appraising that their coping resources have been exhausted. For these individuals, there may be pre-existing levels of distress or feelings of marginalization from a previous history of racism experiences. Microaggressions may lead to further perceptions of feeling marginalized from the dominant group, or that there are limited resources for coping with racism within or outside of the Filipino community. Alternatively, this identity profile may represent Fil-Ams whom have recently arrived to the United States and are not prepared to cope with microaggressions in this context.

No significant interaction was observed for the partial effect of avoidant coping on alcohol-related problems, suggesting that avoidant coping increases risk for alcohol-related problems regardless of group identities. However, it did appear that those with Assimilated identity were at greatest risk for experiencing drinking problems.

8.2.2 Support Seeking/Emotional Expression Coping

Although non-significant, it is noteworthy that the conditional indirect effects were similar for individuals with Marginalized, Assimilated, and Ethnocentric identity profiles, whereby the indirect of microaggressions was positively associated with alcohol related

problems. For those with Integrated/Dual identity profiles, the indirect effect was negatively associated with alcohol-related problems. On closer examination, use of support seeking coping appeared to decrease under higher levels of microaggressions for the Integrated/Dual Identity individuals.

It is not clear why individuals with an Integrated/Dual Identity would be less likely to use support-seeking coping under increased microaggressions. If stress and coping theory is again applied, it could be that when these individuals appraise greater threat due to increased microaggressions but they perceive that alternative coping resources are available. Perhaps past attempts at seeking support resulted in negative experiences, whereby the support they received was not helpful or resulted in increased distress (similar to my interpretation for the mediation findings). Thus, they may perceive that seeking support may not be effective and attempt to utilize other coping strategies.

8.2.3 Active/Forbearance Coping

Only Filipino-specific microaggressions were significantly associated with active/forbearance coping and a significant three-way interaction was observed on the partial effect of active/forbearance coping on alcohol-related problems. A negative indirect effect of Filipino-specific microaggressions on alcohol related problems through active/forbearance coping was significant for individuals with an Assimilated identity profile. In examining the predicted counts of alcohol-related problems, risk for alcohol related problems appeared to decrease for the Assimilated group when using more active/forbearance coping. It should be noted however, that the predicted counts were below 1 at all levels of active/forbearance coping. Nonetheless, it appears that practice of active/forbearance coping has a protective effect especially for individuals with an Assimilated identity. This is consistent with previous

discrimination research where in general, active and forbearance coping strategies tend to be protective on mental health outcomes (e.g., Alvarez & Juang, 2010; Noh & Kaspar, 2003).

8.2.4 Advocacy/Resistance Coping

Though conditional indirect effects were non-significant, a significant three-way interaction was observed on the partial effect of advocacy/resistance coping on alcohol-related problems. In examining the predicted counts of alcohol-related problems, the predicted counts were again below 1 for all levels of advocacy/resistance coping. Nonetheless, risk for alcohol related problems appeared to increase for the Assimilated group when using more advocacy/resistance coping. There are few studies that have examined the potential protective or risk effects for this type of coping strategy. Both advocacy (e.g. educating others about racism) and resistance (e.g. direct confrontation) strategies such as educating others about racism have been correlated with increased self-esteem and life satisfaction (Wei et al., 2010). It may be that for Assimilated individuals, engaging in different forms of advocacy and resistance coping may actually increase psychological distress. In educating others about racism or confronting offenders, they may be acknowledging rejection or marginalization from the dominant White/European American group for whom they identify with most, thereby increasing risk for negative outcomes. Assessing attitudes about race relations, as is done in Black Identity models (e.g., Sellers et al., 1997) may help to better understanding this finding.

8.2.5 Humor Coping

Humor coping was not significantly associated with any form of microaggressions. Although a significant 3-way interaction was observed in its partial effect on alcohol related problems, predicted counts were well below 1. Humor coping has rarely been examined as a strategy on its own and in this study, it constituted its own separate factor. Humor coping on its

own may have no impact on health outcomes, perhaps only so when examined as a part of a broader category of coping strategies.

8.2.6 Other Group Identities

Due to power concerns, I did not examine potential moderating role(s) of Filipino-American, Pan-Asian, and POC identities. However, there was evidence that coping strategies may vary by specific group identities. Both POC and Filipino American identity were associated with increase of advocacy/resistance coping, and POC identity was also positively associated with support seeking coping. The finding on advocacy/resistance may reflect empowerment in response to continued marginalization and oppression, as Filipino Americans are perceived as different from the dominant groups in the U.S. despite cultural values and practices that are more Americanized than Filipinos in the Philippines. Further the POC identity finding may reflect perceptions that are similar to "oppressed minority" ideology (Sellers et al., 1997), whereby one perceives the experiences of other oppressed minority groups to be similar to their own. Both groups may be socialized be aware of experiences with racism and to be able respond in this manner. As suggested in the discussion for the measure development study (Section 5.4.1), future studies may examine latent identity profiles in further refining the understanding of group identity's role in coping with racism.

8.3.0 Significance and Clinical Implications

The present study contributes to the growing literature on the adverse health effects of racism, as well as the understanding in the variation of alcohol use within specific ethnic groups. While previous studies on perceived racism have primarily focused on mental health outcomes, this study is the first that I am aware of to focus on problem drinking outcomes exclusively

among Fil-Ams. The majority of existing literature on alcohol use focuses on Asian Americans as a whole, or only compares Filipino American drinking with other Asian ethnic groups. Etiological studies have been limited to secondary analyses of the FACES data set, which was comprised only of residents that reside in San Francisco or Honolulu and is now nearly two decades old as of this writing. Thus, the current study extends the literature on alcohol use among Filipino Americans by examining alcohol-related problems in a relatively large and geographically diverse sample of Fil-Am young adults. In doing so, it identifies potential targets for prevention and intervention efforts.

The study also contributes to the burgeoning literature on racial and ethnic microaggressions. To date, only one prior study has examined the relationship between microaggressions and alcohol use, which focused on binge drinking events (Blume et al., 2012). Another gap in the microaggressions literature has been determining if specific types of microaggressions have differential effects on health outcomes (Wong et al., 2013). For this study I developed a measure of ethnic-specific microaggressions, i.e. microaggressions commonly experienced by Filipino Americans, to ensure more accurate estimates of microaggression experiences. Filipino-specific microaggressions uniquely contributed to the variance in coping behaviors, over and above that of general microaggressions i.e., those commonly experienced by people of color as a whole. As the FAMS contained microaggressions based on both negative and positive valence stereotypes, future studies may explore this further by examining the subtypes of Filipino-specific microaggressions.

Another notable strength of the study is that it examined multiple aspects of group identity. Findings have been equivocal in assessing the role of ethnic identity on the health effects of perceived racism, potentially because examining ethnic identity alone ignores the

possibility of identifying with other groups (Huynh et al., 2014). As discussed in Study 1, this may be particularly relevant for Fil-Ams given their complex historical, cultural, and sociopolitical context. Assessing for identification with multiple groups allows for better understanding of potential protective or exacerbating effects of group identity, which was supported by the current results.

The results provide insight in to possible mechanisms by which contemporary experiences of racism may negatively impact Filipino Americans, and once again highlight the significance of coping. Specifically, the study assessed for whom and under what conditions in which specific coping strategies in response to microaggressions are utilized, and for whom and under what conditions in which these coping strategies were associated with alcohol related problems. The key findings were: (1) use of avoidant coping and support seeking coping increase risk for experiencing alcohol related problems; (2) avoidant coping strategies were used more when faced with more frequent microaggressions and among those who utilized more avoidant coping, risk for drinking problems was greatest for those with Assimilated Identity; (3) support seeking coping was used less under increased microaggressions among those with Integrated/Dual Identity; and (4) among individuals with Assimilated Identity, greater use of active or forbearance coping appeared to decrease risk for alcohol related problems while greater use of advocacy or resistance coping appeared to increase risk for alcohol related problems.

The results have implications for future prevention and intervention efforts, at both the clinical and community level. For clinicians, it may be important to not only assess for experience of everyday microaggressions but to also provide support through validation of racial reality, which Fil-Am young adults may not receive when responding to or talking to others about microaggression experiences. It would also be important to assess for avoidant coping,

which may also manifest by underreporting or minimizing the impact of racism experiences (Alvarez & Juang, 2010). This may be particularly challenging among Fil-Ams and even more so for those in the young adult age range. Stigma towards mental health and alcohol/substance use treatment is well documented among the Fil-Am community due to certain cultural values and worldviews, such as hiya (shame) or colonial mentality (e.g. David, 2010; Nadal, 2000). Further, interventions may focus on training in alternative, non-avoidant coping strategies to deal with everyday stressors such as microaggressions.

Assessment of group identity or cultural orientation may also inform assessment and interventions in coping strategies. For example, individuals with an Assimilated identity may already be at greater risk for problem drinking and strategies entailing confrontation or addressing racism on a broader level may not be particularly effective. Perhaps they are not interested in community involvement or are in a pre-encounter stage marked by denial of the significance of race and race relations. Thus training in active or forbearance coping strategies, for example religious practice, would be particularly relevant in reducing acute risk.

Encouraging involvement in the Filipino American community, through activities such as student or community organizations, may be relevant for individuals whom perceive a lack of resources to cope with racism. This may be especially true for those with an Ethnocentric Identity profile. Community involvement may put Fil-Am young adults in touch with other community members, whom may be able to relate to their experiences and also provide activities alternative to risky alcohol use. Of course, much of this depends on the availability of community resources. It may be that local organizations are not Filipino-specific and represent coalitions with the broader Pan-Asian community or other ethnic groups. Regardless of membership demographics, a potential shortcoming is the possibility of experiencing

marginalization from others in the Filipino American or broader Pan-Asian community. Although it is not reasonable to expect perfect harmony simply by sharing a ethnic background (Otherwise, there would be minimal conflict within the Philippines or other countries of origin for ethnic communities), this is an important consideration for community leaders. Community resources may already be limited in certain areas and exclusion from it, may contribute to further distancing from group identity and to psychological distress.

From a community perspective, it is important to provide education on modern forms of racism and also address stigma towards mental health and treatment within the Filipino American community. Organizations could implement education and outreach programs on microaggressions and other modern forms of racism, to not only make community members aware of support resources but also to reduce committing microaggressions themselves. Related to this, community programs could encourage multiculturalism and acknowledge the diversity of the Filipino American community, rather than narrow definitions of Filipino identity. This could help to foster strong ties to multiple group identities. Outreach programs and public health campaigns within the Filipino American community could also provide education on mental health and alcohol treatment resources, in order to reduce stigma and encourage service utilization. Finally, partnerships with community organizations could also result in culturally appropriate prevention programs aimed at reducing risky drinking and training in healthy behaviors.

It should be noted that this does not dismiss the perpetrators of microaggressions and other forms of discrimination. Broader society level changes are needed to truly reduce prejudicial attitudes towards marginalized groups, including Filipino Americans, and to increase awareness of microaggressions and modern forms of racism. How to accomplish this is debatable.

Potential solutions include combinations of changes in public policy, increasing representation in school (including curriculum) and workplaces, and implementing education and outreach programs focused on multiculturalism and race issues, which could also encourage ethnic identification. This may be difficult given the racial climate in the United States and divide on race-related issues, as of this writing, following high profile events such as the 2014 shooting of Michael Brown in Ferguson, Missouri and the mass shooting at Emanuel African Methodist Episcopal Church in Charleston, South Carolina nearly a year later. Although outside of the scope of psychological intervention, efforts to reduce the occurrence of racism and microaggressions should not be ignored.

8.4.0 Limitations and Future Directions

This study should be considered in light of several limitations. Although the sample size was relatively large in consisting of only Filipino Americans, the study was still underpowered to detect significant mediation effects as no indirect effect were significant when examining counterfactual based estimates. Power was reduced even further by only including current drinkers in analyses. Even when excluding current abstainers, the distribution of alcohol-related problems was positively skewed. I chose appropriate data analytic methods to address this, however it is s questionable whether findings were clinically meaningful, as some did not predict even a 1-unit increase in alcohol related problems. Increased risk also did not account for the type of alcohol-related problems that may occur. In this sample, the most common consequences were acute consequences that typically result from a single drinking episode such as experiencing a hangover or feeling ill after drinking. The findings do not account for frequency of specific consequences and may not indicate long-term harm or alcohol use disorder.

Nonetheless, even acute consequences can have long-term implications that treatment and prevention efforts should not overlook, e.g. alcohol poisoning, injury, etc. Future studies may also examine clinical cut-scores rather than counts of alcohol-related problems.

Under-reporting may also impact the accuracy of these findings. Cultural values regarding privacy and stigma are present in the Filipino American community (e.g., Nadal, 2000). Some participants declined to answer any questions regarding alcohol use, and it is likely that this impacted recruitment and screening as well. No measures for social desirability or loss of face were included in the data to potentially account for this and to model missing data. Increasing participation and accurate self-reporting may require additional community outreach and education towards Fil-Ams and other under-researched communities.

Due to power concerns, the moderating effects of Filipino American, Pan-Asian, and POC identities were not tested. Thus it is not clear if these variables play a unique role in the relationship between racism and health outcomes. Because of the multidimensional nature of the FilAmIM, I also did not test for potential effects of each group identity subscale as has been done in studies on ethnic identity. Future studies may examine group identities in more detail to further clarify potential buffering or exacerbating effects.

Another clear limitation is that the data is cross sectional, and therefore causality could not be determined. This would be important in determining both identity development and trajectory of drinking problems. Related to this, alternative theoretical models were not tested. With regards to the role of group identity in discrimination and health outcomes, the contact hypothesis states that experiencing racism may foster exploration of ethnic identity, and therefore ethnic identity would be a mediating variable (Molina, Phillips, & Sidanius, 2015). This could be examined in future studies using the FilAmIM.

The methodological limitations from Study 1 also applied to Study 2. The study is limited by sampling techniques and the self-selected nature of the sample, which limit generalizability of the results, and all variables were assessed by self-report. I took steps to improve accuracy of self-report as suggested in the literature, including ensuring confidentiality, and also took steps to reduce and screen for careless responding (Babor et al., 1987; Chermack et al., 1998; Darke, 1998; Ward & Pond, 2015). All materials and procedures were conducted in English, which also biased the sample and may contribute to inaccurate self-report if English was not the first language. It is also important to consider that additional psychometric evaluation is needed for the measures developed in this study. Thus, findings on Filipino-specific microaggressions and group identities should be interpreted accordingly.

The study may not fully account for the diversity among Filipino people, which is ironic considering that the purpose of the study was to disaggregate data from the broader Asian American category and examine the specific experiences of Filipino Americans. Preliminary analyses revealed that experiences of racism, coping and group identity varied by demographic factors, which was consistent with previous studies (e.g. Nadal et al., 2015; Xu, Farver, & Pauker, 2015). However, I did not test for potential moderating effects of generational status, gender, region, or multi-ethnic background due to power limitations. To an even greater degree, recruitment and analyses were limited to potentially marginalized individuals within the Filipino population who might be at greatest risk for poor health outcomes (Harper & Martin, 2013), e.g. specific Philippine ethnic groups, or OFWs. As suggested previously, experiences of racism, group identity, and coping may vary by individual and cultural context. It is important to consider the heterogeneity of the Fil-Am population in future studies.

Future studies may also seek to refine understanding of specific coping strategies. I did not examine whether coping strategies were culturally-congruent, as it has been proposed that existing coping measures may not fully assess how different ethnic groups cope with different stressors. There are measures of collectivistic forms of coping to account for differing values and orientations of Asian American populations (Heppner et al., 2006). Further, spiritual forms of coping may be particularly relevant among subsets of Filipino Americans. In this study, forbearance coping strategies, including prayer, were collapsed in to a single factor. Future studies may examine religious beliefs and different forms of spiritual coping (e.g., Horton & Loukas, 2013). Related to this, future studies may also examine stressor-specific coping, which has been suggested as a gap in microaggressions literature (Wong et al. 2013). This would help to determine the efficacy of coping strategies for specific types of microaggressions/racism, rather than overall scores, as was done in this study.

Finally, additional research is needed in understanding cultural factors and drinking among Filipino Americans. The current analyses did not examine variations in drinking behavior, i.e. drinking quantities (which was not significantly correlated with variables of interest), and no interpretations could be made for what is considered normative drinking in Filipino culture. Cultural values that are common among Filipinos, such as respect for elders have been found to be associated with drinking behaviors in other Asian populations (e.g., Shih, Miles, Tucker, Zhou, & D'Amico, 2012). There have been measures developed for Filipino Americans that directly assess Filipino cultural values. These could be examined with established psychosocial variables in alcohol use such as injunctive norms and expectancies. Qualitative inquiries could also be done in examining cultural experiences and alcohol in more detail. These would help to

better understand cultural norms and perceptions regarding alcohol use in this population, and would refine interpretation of findings such as those in the current study.

8.5.0 Conclusion

The overall aim of this project was to address the potentially adverse effects of alcohol use within a specific ethnic subgroup. For API populations, the majority of research focuses on APIs as a whole. By focusing specifically on Filipino Americans, the current study provided insight into the variability in alcohol outcomes in a specific API groups and potential health effects of racism. This was accomplished by: (1) focusing on Fil-Ams in the young adult age range, which tends to be at greatest risk for problem drinking; (2) developing ethnic-specific measures of group identity and microaggressions; (3) examining the efficacy of coping strategies in response to racism, as they relate to problem drinking; and (4) examining the moderating role of group identity to determine whom and under what conditions specific coping strategies are used, and whom and under what conditions coping strategies are most or least effective. The findings inform future research on alcohol use etiology as well the development and evaluation of culturally-appropriate prevention and treatment strategies, in order to better meet the needs of Fil-Ams and other underserved populations.

Table 1

Item Component Loadings, Communality Estimates, Means, and Standard Deviations for the Filipin@ American Microaggressions Scale (FAMS) (N = 194)

	Component Loadings					
	1	2	3	h^2	*M*	*SD*
Component 1: Assumptions of Similarity/Positive Stereotypes; PoV = 16.57						
9. Someone mistook my ethnicity for another Asian or Pacific Islander group.	**.67**	.06	.13	.48	2.73	1.36
31. Someone asked, 'what are you?'	**.67**	.29	-.06	.54	2.67	1.43
1. Someone expected me to do well in school because I am Asian.	**.64**	.09	.01	.42	2.94	1.56
24. Someone assumed or joked about me being a bad driver because I am Asian.	**.62**	.11	.02	.40	1.78	1.42
19. Someone assumed that I would bring Filipino food to a social gathering.	**.58**	.13	.21	.39	1.50	1.24
20. Someone assumed I am a nurse or in medicine because I am Filipino.	**.55**	-.06	.37	.44	1.62	1.54
30. Someone asked, 'where are you really from?'	**.50**	.20	.27	.36	1.94	1.45
7. Someone expected me to friendly and hospitable because I am Filipino.	**.44**	.38	.07	.35	1.72	1.56
Component 2: Assumed Inferiority/Negative Stereotypes; PoV = 16.32						
3.Someone assumed or made jokes about Filipina women being prostitutes or being involved in sex trade.	.20	**.75**	.17	.63	.77	1.06
10. Someone called me a derogatory term typically aimed at other racial/ethnic groups (e.g. Hispanic/Latino, Black/African American).	.01	**.71**	.13	.52	.94	1.17
5. Someone told me that Filipinos are inferior to other Asian ethnic groups.	.22	**.62**	.13	.45	.80	1.07
11. Someone assumed or made jokes about Filipino men being effeminate.	.04	**.56**	.17	.34	.65	.98
12. Someone mistook my ethnicity for a non-Asian or Pacific Islander group.	.18	**.55**	-.23	.39	1.89	1.48
2. Someone teased me about eating dogs.	.28	**.52**	.10	.36	1.36	1.14
8. Someone assumed my education or intelligence would be lower because I am Filipino.	-.10	**.50**	.39	.41	.53	.95
Component 3: Perpetual Foreigner; PoV = 12.93						
15. Someone assumed that I would not speak English well.	.10	.13	**.78**	.64	.99	1.23
29. Someone assumed that I would speak with an accent.	.26	-.01	**.72**	.58	.98	1.31
18. Someone assumed I am an undocumented immigrant.	.01	.18	**.62**	.42	.28	1.73
22. Someone assumed I would be poor because I am Filipino	.31	.38	**.60**	.60	.57	.99

Note. PoV = Percentage of variance accounted for after rotation

Table 2

Item Component Loadings, Communality Estimates, Prevalence for the Filipin@ American Microaggressions Scale - Checklist Version (FAMS-CL) (N = 194)

	Component Loadings				
	1	2	3	h^2	%
Component 1: Assumed Inferiority/Negative Stereotypes; PoV = 19.45					
10. Someone called me a derogatory term typically aimed at other racial/ethnic groups (e.g. Hispanic/Latino, Black/African American).	**.71**	-.08	.13	.53	23.20
3.Someone assumed or made jokes about Filipina women being prostitutes or being involved in sex trade.	**.67**	.19	.18	.52	21.65
11. Someone assumed or made jokes about Filipino men being effeminate.	**.57**	.02	.09	.34	16.49
12. Someone mistook my ethnicity for a non-Asian or Pacific Islander group.	**.49**	.10	-.04	.25	55.67
5. Someone told me that Filipinos are inferior to other Asian ethnic groups.	**.49**	.25	.08	.30	21.65
8. Someone assumed my education or intelligence would be lower because I am Filipino.	**.48**	-.02	.32	.33	13.92
Component 2: Assumptions of Similarity/Positive Stereotypes; PoV = 10.38					
24. Someone assumed or joked about me being a bad driver because I am Asian.	-.04	**.66**	.02	.45	57.73
1. Someone expected me to do well in school because I am Asian.	.14	**.63**	-.16	.44	84.02
19. Someone assumed that I would bring Filipino food to a social gathering.	.06	**.60**	.21	.40	46.91
7. Someone expected me to friendly and hospitable because I am Filipino.	.19	**.49**	.24	.34	52.58
9. Someone mistook my ethnicity for another Asian or Pacific Islander group.	.03	**.47**	.05	.23	81.96
28. Someone told me how much they love to date Filipinos	-.01	**.47**	.15	.25	57.73
31. Someone asked, 'what are you?	.03	**.45**	-.22	.34	81.96
Component 3: Perpetual Foreigner; PoV = 8.28					
15. Someone assumed that I would not speak English well.	.03	.01	**.76**	.58	28.35
29. Someone assumed that I would speak with an accent.	-.02	.16	**.71**	.52	28.35
22. Someone assumed I would be poor because I am Filipino	.33	.04	**.59**	.46	13.92
21. Someone told me how that Filipinos make great workers	.10	.25	**.51**	.34	51.03
18. Someone assumed I am an undocumented immigrant.	.27	-.07	**.43**	.26	5.67

Note. PoV = Percentage of variance accounted for after rotation

Table 3

Correlations, Scale Means, Standard Deviations, for the FAMS and Subscales (N = 389)

	1	2	3	4	5	6	7	8	α	*M*	*SD*
1. FAMS Total									.90	27.53	15.39
2. FAMS Pos Stereotypes	.88**								.80	14.60	7.12
3. FAM: Neg Stereotypes	.86**	.61**							.82	7.60	5.90
4. FAMS Perp Foreigner	.82**	.59**	.60**						.79	5.36	4.90
5. FAMS-CL Total	.92**	.80**	.80**	.77**					.82	8.05	4.18
6. FAMS-CL Pos Stereotypes	.72**	.86**	.47**	.47**	.81**				.72	2.14	1.88
7. FAMS-CL Neg Stereotypes	.77**	.53**	.91**	.54**	.83**	.45**			.65	4.42	1.86
8. FAMS-CL Perp Foreigner	.73**	.52**	.53**	.91**	.78**	.46**	.52**		.69	1.48	1.43
9. RaLES-B Total	.49**	.41**	.51**	.32**	.43**	.33**	.42**	.28**	.89	1.87	.76
10. RALES Self	.47**	.39**	.49**	.32**	.42**	.32**	.41**	.27**	.88	1.73	.89
11. RALES Group	.43**	.37**	.45**	.27**	.38	.30**	.37**	.24**	.70	2.05	.72
13. AAMAS-CO	.13*	.11*	-.04	.29**	.14**	.15**	-.06	.30**	.88	4.35	.87
14. AAMAS-AA	.18**	.16**	.11*	.18**	.15**	.12*	.06	.20**	.84	3.28	.73
15. AAMAS-EA	-.18**	-.09	-.15**	-.25**	-.14**	-.04	-.14**	-.19**	.85	4.59	.72

Note. FAMS = Filipino American Microaggressions Scale; RaLES-B = Racism and Life Experiences; AAMAS = Asian American Multidimensional Acculturation Scale; AAMAS-CO = Culture of Origin (orientation to Filipino culture); AAMAS-AA = Asian American (Orientation to Pan-Asian culture); AAMAS-EA = European American (orientation to European American culture)

*$p < .05$, ** $p < .001$

Table 4

Psychometric Properties for the Filipino American Microaggressions Scale (FAMS) by Demographics (N = 389)

Demographic	FAMS Total	Subscale 1	Subscale 2	Subscale 3
Generation				
1st Generation (*n = 75*)				
M	29.95	14.36	6.86	8.72
SD	14.24	6.90	5.09	5.16
α	.86	.74	.77	.73
1.5 Generation *(n=64)*				
M	31.71	15.84	9.25	6.62
SD	16.13	7.26	7.37	5.33
α	.92	.81	.88	.80
2nd and above (*n* = 250)				
M	25.87	14.40	7.41	4.06
SD	14.84	7.15	5.65	4.17
α	.91	.83	.80	.78
Gender				
Male (*n* = 144)				
M	27.28	13.28	8.45	5.54
SD	16.94	7.27	6.32	4.33
α	.92	.82	.84	.83
Female (*n* =245)				
M	27.79	15.43	7.10	5.26
SD	14.45	6.93	5.58	4.67
α	.89	.79	.80	.76

Note. Subscale *1* = Positive Stereotypes, Subscale 2 = Negative Stereotypes, Subscale 3 = Perpetual Foreigner

Table 5.

Items, Factor Loadings, Communality Estimates, Means, and Standard Deviations for the Filipino American Identity Measure (FilAmIM) (N = 195)

	Factor Loadings						
	1	2	3	4	h^2	*M*	*SD*
FilAmIM-FI (Filipino Ethnic Identity Scale)							
Factor 1: Centrality/Salience							
A1. Being Filipino has very little to do with how I feel about myself.	**-.76**	.05	-.06	.15	.52	2.21	1.17
A4. Overall, being Filipino is unimportant to my sense of what kind of person I am.	**-.72**	.12	.14	-.13	.42	2.67	1.43
A2. In general, being Filipino is an important part of my self-image.	**.71**	.09	.07	.10	.73	4.05	.84
ID1. My ethnic background (e.g. Filipino)…(is an important part of my self image)	**.56**	.22	.06	.04	.60	4.05	1.14
A3. Being Filipino is an important reflection of who I am.	**.53**	.19	.16	.00	.60	4.09	.81
Factor 2: Group/Cultural Affinity							
7. If I had a choice, I would be in closer contact with the people and culture of the Philippines.	.02	**.81**	.03	-.13	.59	4.03	.98
20. I would like to be more involved in the Filipino community.	.01	**.78**	-.11	-.14	.43	3.89	.82
19. If given a choice, I would speak a Filipino language on a regular basis.	.03	**.68**	.01	-.05	.45	3.55	1.13
10. I take pride in my Filipino heritage.	-.06	**.42**	.28	.29	.67	4.43	.72
Factor 3: Group Affiliation							
5. I have a strong sense of belonging with other Filipinos.	.08	-.13	**.99**	-.07	.85	3.82	1.07
11. I fit in well in settings were the majority of people are Filipino.	.12	-.04	**.75**	-.08	.57	3.69	1.05
16. I can relate to Filipinos.	-.09	.04	**.52**	.22	.42	4.02	.78
6. I feel proud when I hear about the success of other Filipinos.	-.25	.37	**.43**	.13	.47	4.41	.73
Factor 4: Identification							
1. I consider myself Filipino.	-.05	-.03	-.01	**.76**	.51	4.52	.60
15. I question whether I should be considered Filipino.	-.07	.33	-.10	**-.71**	.42	1.86	1.11
21. I tell other people that I am Filipino.	.13	.28	-.21	**.52**	.45	4.39	.73
FilAmIM-FAI (Filipino American Generational/Cultural Identity Scale)							
Factor 1: Identification/Affinity							
1. I consider myself Filipino American.	**.81**	-.18			.51	4.24	.95
4. I take pride in being Filipino American.	**.78**	-.02			.59	4.15	.86
16. I tell other people that I am Filipino American.	**.71**	.01			.51	3.47	1.22
2. I have clear sense of what being Filipino American means for me.	**.53**	.10			.36	4.07	.87
7. I feel proud when I hear about the success of Filipino Americans.	**.45**	.30			.46	4.29	.82
Factor 2: Affiliation							
9. I fit in well in settings where the majority of people are Filipino Americans.	-.13	**.94**			.74	3.95	.99
5. I am active in organizations that include mostly Filipino Americans.	-.12	**.71**			.41	3.30	1.25
6. I have a strong sense of belonging with Filipino Americans.	.26	**.66**			.72	3.70	1.04
17. I would like to be more involved in the Filipino American community	.27	**.43**			.41	3.94	.83

Table 5 (continued)

	Factor Loadings				
	1	2	h^2	*M*	*SD*
FilAmIM-AI (American National Identity Scale)					
Factor 1: Identification/Affinity					
2. I have a clear sense of what being American means to me.	**.80**	.05	.53	3.80	1.03
1. I consider myself American.	**.77**	-.08	.52	3.69	1.15
14. I tell other people that that I am American	**.66**	.02	.73	3.16	1.14
13. I take pride in being American.	**.60**	.17	.48	3.58	1.00
12. I question whether I should be considered American	**-.56**	.11	.26	2.04	1.04
3. I have spent time trying to learn about American history, traditions, and customs.	**.52**	.12	.36	3.87	.91
ID3. My nationality (e.g. American)…(is an important part of my self image)	**.40**	.04	.18	3.56	1.26
Factor 2: Affiliation					
7. I fit in well in settings where the majority of people are White Americans.	-.14	**.85**	.51	3.15	1.11
8. I can relate to White Americans.	-.05	**.81**	.54	3.17	1.10
5. I have a strong sense of belonging with White Americans.	.02	**.81**	.58	2.61	1.09
4. I am active in organizations or social groups that include mostly White Americans.	.11	**.60**	.49	2.93	1.26
6. I feel proud when I hear about the success of other Americans.	.27	**.43**	.40	3.34	.97
FilAmIM-PAI (Pan-Asian Racial Identity Scale)					
Factor 1: Affiliation					
4. I feel proud when I hear about the success of other Asian individuals, including non-Filipinos.	**.80**	-.03	.61	3.86	.84
5. I am offended when I hear about discrimination or insults towards any individuals of Asian background…	**.75**	-.08	.50	4.23	.81
6. There are Asian people, including non-Filipino, in popular media whom I relate or look up to.	**.74**	-.06	.49	3.63	.95
2. I spend time trying to find out about Asian history, traditions, and customs, including non-Filipino.	**.58**	.16	.48	3.70	.94
8. I fit in well in settings where the majority of people are of Asian ethnic background, including non-Filipino.	**.54**	.19	.47	3.81	.97
Factor 2: Identification/Affinity					
1. I consider myself Asian.	-.03	**.83**	.66	4.12	.73
15. I tell other people that I am Asian.	-.10	**.82**	.57	3.74	1.11
7. I take pride in being Asian.	.29	**.57**	.64	4.05	.79
FilAmIM-POC (Person of Color/Allied Identity Scale)					
Factor 1: Self-Identification/Interpersonal Affiliation					
1. I consider myself a person of color.	**.75**	-.16	.42	3.90	1.10
4. I fit in well in settings where the majority of people are persons of color, including non-Asian.	**.70**	-.04	.47	3.80	.85
2. I have spent time trying to learn about the history, customs, and community issues of other ethnic groups…	**.55**	.18	.46	3.87	.90
9. I can relate to other people of color, including non-Asian.	**.43**	.33	.49	3.95	.72
Factor 3: Allied Affiliation					
10. I am offended when I hear about discrimination towards any person of color, including non-Asian	-.04	**.74**	.51	4.26	.85
11. There are people of color, including non-Asian, in popular media whom I relate or look up to.	-.14	**.69**	.36	3.84	.87
8. I feel proud when I hear about the success of any person of color, including non-Asian.	.18	**.60**	.55	3.98	.79

Table 6.

Goodness-of-Fit Indicators and summary of changes for FilAmIM Identity Scales

Scale	Model	Λ^2	*df*	*CFI*	*RMSEA*	*SRMR*	Summary
FilAmIM-FI	16 item, 4 factor	192.95	98	.90	.07	.07	• Factor 3 - Removed Item 6 ("I
(Filipino Ethnic Identity)	15 item, 4 factor	131.67	83	.94	.06	.06	feel proud when I hear about…")
	15 item, 2nd order factor	137.52	85	.94	.06	.06	
FilAmIM-FAI	9 item, 2 factor	68.41	26	.93	.09	.08	• Factor 1 - Removed Item 7 ("I
(Filipino American	8 items, 2 factor	35.66	19	97	.07	.06	feel proud when I hear about…")
Generational Identity)	8 item, 2nd order factor	35.67	19	.97	.07	.06	• Factor 1 & 2 loadings fixed to 1
FilAmIM-AI	12 item, 2 factor	195.70	53	.83	.12	.10	• Factor 2 - Removed Item 7 ("I
(American National Identity)	11 item, 2 factor	74.72	41	.95	.07	.07	feel proud when I hear about…")
	11 item, 2nd order factor	74.72	41	.95	.07	.07	• Factor 1 & 2 loadings fixed to 1
FilAmIM-PAI	8 item, 2 factor	62.95	19	.92	.11	.07	• Factor 1 - Removed Item 5 ("I
(Pan-Asian Identity)	7 item, 2 factor	36.13	13	.95	.10	.05	am offended when I hear ..")
	7 item, 2nd order factor	36.13	13	.95	.10	.06	• Factor 1 error variance fixed to 0
FilAmIM-POC	7 item 2 factor	23.07	13	.98	.06	.04	• Re-specified to single factor
(Person of Color/Allied ID)	7 item, 2nd order factor	23.07	13	.98	.06	.05	• Factor 2 error variance fixed to 0

Table 7.
Reliabilities and psychometric properties of the FilAmIM scales and subscales.

	α	*M*	*SD*
1. FilAmIM-FI: Centrality	.82	3.95	.80
2. FilAmIM-FI: Affinity	.73	3.95	.69
3. FilAmIM-FI: Affiliation	.79	3.81	.83
4. FilAmIM-FI: Identification	.55	4.40	.59
5. FilAmIM-FI Total Score	.84	3.95	.57
6. FilAmIM-FAI: ID/Affinity	.80	4.01	.81
7. FilAmIM-FAI: Affiliation	.78	3.73	.84
8. FilAmIM-FAI Total Score	.82	3.88	.71
9. FilAmIM-AI: ID/Affinity	.80	3.64	.75
10. FilAmIM-AI: Affiliation	.84	2.89	.97
11. FilAmIM-AI Total	.84	3.34	.70
12. FilAmIM-PAI: ID/Affinity	.71	4.00	.80
13. FilAmIM-PAI: Affiliation	.77	3.76	.72
14. FilAmIM-PAI Total	.84	3.86	.66
15. FilAmIM-POC: Id/Affiliate	.75	3.87	.73
16. FilAmIM-POC: Allied	.72	4.02	.69
17. FilAmIM-POC Total	.82	3.86	.66

Table 8 *Inter-correlations, Reliability Estimates, Scale Means, Standard Deviations, for the FilAmIM (N = 389)*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. FilAmIM-FI: Centrality																	
2. FilAmIM-FI: Affinity	.54**																
3. FilAmIM-FI: Affiliation	.48**	.44**															
4. FilAmIM-FI: Identification	.36**	.34**	.44**														
5. FilAmIM-FI Total Score	.86**	.78**	.75**	.61**													
6. FilAmIM-FAI: ID/Affinity	.20**	.16**	.08	.08	.18**												
7. FilAmIM-FAI: Affiliation	.42**	.44**	.54**	.20**	.53**	.48**											
8. FilAmIM-FAI Total Score	.36**	.35**	.36**	.17**	.42**	.85**	.87**										
9. FilAmIM-AI: ID/Affinity	-.13**	-.05	-.04	.08	-.07	.45**	.11*	.32**									
10. FilAmIM-AI: Affiliation	-.32**	-.16**	-.13*	-.14**	-.27**	.05	-.09	-.02	.41**								
11. FilAmIM-AI Total	-.26**	-.13*	-.10	-.04	-.20**	.34*	.04	.22**	.87**	.77**							
12. FilAmIM-PAI: ID/Affinity	.17**	.18**	.20**	.22**	.24**	.11*	.08	.12*	.08	.02	.05						
13. FilAmIM-PAI: Affiliation	.29**	.25**	.30**	.17**	.34**	.20**	.32	.31**	.04	-.15**	-.06	.58**					
14. FilAmIM-PAI Total	.26**	.25**	.28**	.22**	.33**	.18**	.23**	.25**	.06	-.09	-.02	.87**	.91**				
15. FilAmIM-POC: Id/Affiliate	.25**	.24**	.14**	.12*	.26**	.21**	.23**	.26**	.07	-.17**	-.03	.10	.42**	.31**			
16. FilAmIM-POC: Allied	.18**	.23**	.08	.11*	.20**	.20**	.26**	.27**	.11*	-.10	.03	.11*	.46**	.34**	.59**		
17. FilAmIM-POC Total	.25**	.27**	.13**	.14*	.27**	.23**	.28**	.30**	.09	-.15**	-.01	.12*	.49**	.36**	.93**	.83**	
18. MEIM: Commitment	.53**	.54**	.62**	.44**	.70**	.30**	.53**	.48**	.08	-.14**	-.02	.23**	.35**	.34**	.22**	.23**	.26**
19. MEIM: Exploration	.51**	.42**	.35**	.17**	.51**	.31**	.58**	.52**	-.02	-.25**	-.13*	.08	.35**	.26**	.24**	.35**	.38**
20. MEIM Total	.59**	.56**	.58**	.38**	.71**	.34**	.61**	.56**	.05	-.20**	-.07	.20**	.40**	.35**	.30**	.31**	.34**
21. AAMAS-CO Identity	.52**	.51**	.65**	.46**	.69**	.15**	.47**	.36**	-.04	-.18**	-.12**	.26**	.31**	.33**	.20**	.21**	.23**
22. AAMAS-CO Total	.39**	.35**	.58**	.41**	.55**	-.06	.23**	.11*	-.18**	-.16**	-.21**	.28**	.29**	.42**	.11*	.06	.10*
23. AAMAS-AA Identity	.27**	.19**	.32**	.18**	.32**	.15**	.24**	.23**	.05	-.15**	-.04	.41**	.61**	.59**	.33**	.25**	.33**
24. AAMAS-AA Total	.19**	.14**	.26**	.12*	.23**	.06	.14**	.12*	-.05	-.15**	-.11*	.38**	.56**	.55**	.28**	.18**	.27**
25. AAMAS-EA Identity	-.26**	-.19**	-.07	.00	-.20**	.12*	-.08	.02	.47**	.63**	.64**	.07	-.07	-.00	-.15**	-.09	-.15**
26. AAMAS-EA Total	-.23**	-.16**	-.11*	.01	-.19**	.21**	-.02	.11*	.54**	.57**	.66**	.07	-.00	.04	-.03	-.00	-.02

Note. Highlighted columns are correlations with total scores of FilAmIM FI, FAI, AI, PAI, and POC scales.
*$p < .05$, ** $p < .01$.

Table 9

Psychometric Properties for the Filipino American Identity Measure (FilAmIM) by Demographics (N = 389)

Demographic	FI	FAI	AI	PAI	POC
Generation					
1st Generation (*n = 75*)					
M	4.03	3.31	3.06	3.96	3.64
SD	.63	.81	.62	.65	.65
α	.87	.87	.76	.85	.81
1.5 Generation *(n=64)*					
M	4.03	3.81	3.28	3.93	4.03
SD	.57	.64	.69	.73	.60
α	.86	.77	.83	.86	.85
2nd and above (*n* = 250)					
M	4.00	4.04	3.44	3.82	4.00
SD	.55	.62	.70	.66	.62
α	.82	.78	.85	.83	.81
Multi-Ethnic					
No (*n* = 274)					
M	4.06	3.91	3.31	3.87	3.95
SD	.56	.74	.70	.66	.65
α	.84	.84	.83	.83	.83
Yes (*n* =115)					
M	3.91	3.82	3.46	3.86	3.91
SD	.57	.65	.71	.69	.61
α	.83	.78	.85	.86	.79

Note. FI = Filipino Identity; FAI = Filipino American Identity; AI = American Identity; PAI= Pan Asian Identity; POC = Person of Color/Allied Identity

Table 10

Means, Standard Deviations, and Bivariate Correlations for Main Study Variables (N =444)

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	*M*	*SD*
1. Total Alcohol Problems[a]															2.08	2.44
2. Typical Weekly Drinks[a]	.38**														4.29	5.80
3. Filipino Microaggressions[a]	.06	.06													9.93	10.57
4. General Microaggressions[a]	.08	.05	.56**												11.95	12.43
5. Active/Forbearance	-.01	-.03	.13**	-.01											2.73	.59
6. Advocacy/Resistance	.01	.04	.26**	.21**	.29**										2.39	.75
7. Avoidant	.21**	.07	.29**	.29**	.12**	-.07									1.94	.99
8. Support Seeking	.11*	-.04	.14**	.14**	.34**	.37**	.07								2.78	.71
9. Humor	.04	.06	.12*	.06	.19**	.17**	.20**	.15**							2.44	.99
10. Filipino Identity	-.02	-.03	.05	.01	.19**	.21**	.00	.20**	-.01						3.97	.53
11. American Identity	-.01	.04	-.09	-.19**	.14**	-.02	-.13**	.05	.16**	-.07					3.34	.58
12. Filipino American Identity	.03	.01	-.01	-.05	.11*	.28**	-.10*	.12**	.01	.47**	.28**				3.90	.68
13. Pan-Asian Identity	-.06	-.03	.05	.03	.16**	.16**	.05	.15**	.14**	.31**	.05	.20**			3.94	.63
14. POC Identity	.03	-.03	.07	.12*	.10*	.43**	.00	.22**	.09	.24**	-.03	.27**	.32**		3.89	.62

[a] Past 3 months

* $p < .05$, ** $p < .01$

Table 11

Lifetime and Past 3-Month Prevalence of Drinking Consequences, Descriptive Statistics for YAAPST (N =444)

Consequence	Past 3 Months	Life Time
1. Driving after drinking	9%	34.1%
2. Headache/Hangover	50.3%	83.1%
3. Illness/Vomiting	38.2%	82.0%
4. Late for work/school	9.4%	38.7%
5. Absence from work/school	8.1%	40.5%
6. Physical fights when drinking	2%	12%
7. Trouble at work/school	1.3%	4.5%
8. Fired/suspended/expelled	0%	1.3%
9. Delinquent behavior (e.g. property damage)	1.3%	13.9%
10. Others complained about drinking	10.3%	26.1%
11. Relationship problems	8.3%	21.3%
12. Lost friends/romantic partners	1.6%	6.3%
13. Neglected obligations for 2 or more days	2.5%	12.4%
14. Sexual situations later regretted	6.6%	34.1%
15. Impaired work/school performance	3.1%	16.2%
16. Arrested for DUI	0.7%	2%
17. Other alcohol-related arrest	0.4%	1.1%
18. Blackouts	22.5%	55.4%
19. Alcohol withdrawal symptoms	1.3%	4.9%
20. Alcohol cravings after waking	1.3%	4.9%
21. Increased alcohol tolerance	10.4%	32.7%
22. Felt dependent on alcohol	2.5%	8.8%
23. Felt guilty about drinking	12.8%	36.3%
24. Doctor said drinking was harming health.	1.1%	7%
25. Sought help to control drinking	0.9%	2.5%
26. Attended AA	0%	0.7%
27. Sought professional help	0.2%	1.6%

Variable	*Min*	*Max*	*Mean*	*SD*
YAAPST Lifetime Total	0	27	5.87	4.20
YAAPST 3 Month Total	0	17	2.08	2.44
YAAPST 3 Month Severity	0	69	7.95	9.96

Table 12.
Negative Binomial Regression on Alcohol-Related Problems (n = 444)

Variable	IRR	SE	z	95% CI
Age (Ref: 21-25)				
18-20	1.20	0.11	2.08	1.03-1.38
26-30	.78	0.07	-2.84**	.67-.09
U.S. born	1.15	0.13	1.18	.93-1.36
Female	.94	0.10	-0.66	.78-1.09
Multi-ethnic	.96	0.11	-0.38	.78-1.13
LGBQ	.92	0.13	-0.57	.71-1.13
Education (Ref: Bachelor's or Higher)				
High School Diploma or Lower	.91	0.08	-1.06	.78-.1.04
Some College	1.07	0.07	0.88	.94-1.19
Geographic Region (Ref: West)			.	
Northeast	1.19	0.13	1.65	.98-.140
Midwest	.83	0.11	-1.38	.65-1.02
South	.92	0.08	-1.04	.79-1.04
Microaggressions				
Filipino-Specific	.99	0.01	-1.67	.98-1.00
General	1.00	0.09	0.83	.99-1.01
Coping				
Active	.90	0.09	-1.12	.76-1.04
Advocacy/Resistance	.95	0.08	-.0.65	.82-1.07
Support Seeking	1.19	0.09	2.18*	1.03-1.34
Avoidant	1.68	0.20	4.32***	1.35-2.01
Humor	.94	0.05	-1.32	.86-1.01
Group Identification				
Filipino	1.10	0.11	0.94	.91-1.29
American	1.01	0.07	0.11	.89-1.13
Filipino-American	1.08	0.09	0.99	.94-1.23
Pan-Asian	.77	0.06	-3.22***	.67-.87
POC/Allied	1.13	0.11	1.26	.95-1.30
Weekly Drinks	1.06	0.02	3.49***	1.03-1.09

*p < .05, **p<.01, ***p<.001

Table 13

Indirect Effects of Microaggressions (General and Filipino-Specific) on Alcohol-Related Problems Through Coping (n = 444)

	Parameter Estimate	SE	z	95% BC CI		NIE
				Lower	Upper	
Sum of Indirect						
Filipino Microaggressions	.002	.002	0.70	-.002	.007	
General Microaggressions	.004	.002	2.57**	.001	.007	
Active/Forbearance Coping						
Filipino Microaggressions	-.001	.001	-1.00	-.003	.001	.000
General Microaggressions	.000	.000	0.76	.000	.001	.000
Advocacy/Resistance Coping			.			
Filipino Microaggressions	-.001	.001	-0.93	-.003	.001	-.001
General Microaggressions	.000	0.11	-0.85	-.001	.000	.000
Support Seeking Coping						
Filipino Microaggressions	.001	.001	1.36	.000	.003	.001
General Microaggressions	.002	.001	1.70	.000	.003	.001
Avoidant Coping						
Filipino Microaggressions	.002	.002	2.13*	.001	.006	.004
General Microaggressions	.003	.001	2.38*	.001	.004	.003
Humor Coping						
Filipino Microaggressions	-.001	.001	-0.95	-.002	.000	.000
General Microaggressions	.000	.000	-.63	-.001	.000	.000

Note. BC CI = Bias Corrected Confidence Interval; NIE = Natural Indirect Effect.
*p < .05, **p<.01, ***p<.001

Table 14

Conditional Indirect Effects for Microaggressions (General and Filipino-Specific) on Alcohol-Related Problems through Coping, at Different Levels of Filipino Identity and American Identity (n = 444)

			Filipino Microaggressions				General Microaggressions			
Mediator	**Level of FI**	**Level of AI**	**IE**	**SE**	**95% BC CI**		**IE**	**SE**	**95% BC CI**	
					Lower	**Upper**			**Lower**	**Upper**
Active/Forbearance	-1 SD	-1 SD	.000	.006	-.007	.021	-.000	.003	-.010	.004
	-1 SD	+1 SD	-.022	.013	-.053	-.004*	.005	.006	-.004	.020
	+1 SD	-1 SD	.000	.004	-.007	.010	-.000	.002	-.006	.003
	+1 SD	+1 SD	.002	.005	-.006	.013	-.001	.004	-.013	.004
Advocacy/Resistance	-1 SD	-1 SD	-.004	.006	-.022	.005	-.000	.005	-.012	.009
	-1 SD	+1 SD	.006	.009	-.013	.004	.002	.004	-.002	.015
	+1 SD	-1 SD	-.002	.007	-.019	.009	-.001	.002	-.008	.002
	+1 SD	+1 SD	.001	.004	-.004	.013	.000	.002	-.002	.010
Support Seeking	-1 SD	-1 SD	.006	.008	-.002	.034	.005	.006	-.003	.020
	-1 SD	+1 SD	.002	.005	-.004	.018	.002	.003	-.003	.010
	+1 SD	-1 SD	.004	.006	-.005	.019	.005	.005	-.001	.017
	+1 SD	+1 SD	-.000	.002	-.006	.004	-.001	.003	-.013	.003
Avoidance	-1 SD	-1 SD	.012	.009	-.003	.032	.011	.008	-.003	.029
	-1 SD	+1 SD	.014	.010	.001	.042*	.013	.007	.003	.035*
	+1 SD	-1 SD	.002	.006	-.010	.013	.000	.004	-.009	.007
	+1 SD	+1 SD	.006	.006	-.002	.020	.008	.006	-.001	.025
Humor	-1 SD	-1 SD	.001	.005	-.007	.013	.002	.004	-.003	.015
	-1 SD	+1 SD	-.007	.007	-.031	.001	-.006	.005	-.018	.002
	+1 SD	-1 SD	-.005	.005	-.017	.002	.002	.003	-.002	.001
	+1 SD	+1 SD	-.001	.003	-.010	.002	.000	.003	-.005	.006

Note. FI = Filipino Identity; AI = American Identity; IE = Indirect Effect; BC CI = Bias Corrected Confidence Interval;
*Denotes Confidence Interval Does Not Contain 0.

Table 15a

Selected Moderated Mediation Analyses for Interaction Effects of Microaggressions, Filipino Identity, and American Identity on Coping (n = 444)

	Filipino Microaggressions			**General Microaggressions**		
	b	**SE**	**z**	**b**	**SE**	**z**
Mediator: Avoidance Coping						
Predictor	.01	.06	2.64**	.12	.03	3.48
FI	.46	.21	2.23**	.56	.22	2.59**
AI	.40	.24	1.64	.47	.24	1.90
Predictor x FI	-.04	.02	-2.50	-.03	.03	-3.30**
Predictor x AI	-.04	.02	-1.92	-.03	.01	-2.36*
FI x AI	-.11	.06	-1.78	-.13	.06	-2.01*
Predictor x FI X AI	.01	.01	1.96	-.01	.00	2.33*
Mediator: Support Seeking Coping						
Predictor	-.03	-.10	-.28	-.08	.05	-1.61
FI	.18	.39	.46	-.06	.38	-.16
AI	.04	.47	.09	-.26	.44	-.59
Predictor x FI	.01	.02	.39	.02	.01	1.96
Predictor x AI	.02	.03	.50	.03	.02	2.08*
FI x AI	.02	.12	.16	.10	.11	.92
Predictor x FI X AI	-.00	.007	-.56	-.01	.00	-2.26*

Note. Demographic variables including nativity, sex, age, multi-ethnic background and geographic region were controlled for in all analyses.

FI = Filipino Identity; AI = American Identity

* $p < .05$, ** $p < .01$, $p < .001$

Table 15b

Selected Moderated Mediation Analyses for Interaction Effects of Coping, Filipino Identity, and American Identity on Alcohol-Related Problems (n = 444)

Variable	b	SE	z
Moderator: FI	3.09	3.33	.93
Moderator: AI	5.04	3.68	1.36
FI x AI	-.97	.92	-1.06
Active/Forbearance Coping	7.21	3.77	1.92
Active x FI	-1.54	.93	-1.65
Active x AI	-2.26	1.00	-2.27*
Active x FI x AI	.49	.25	1.96
Advocacy/Resistance Coping	-5.67	2.5	-2.29*
Advocacy x FI	1.21	.62	1.96
Advocacy x AI	1.47	.71	2.08*
Advocacy x FI x AI	-.31	.18	-1.77
Humor Coping	5.50	2.23	2.42*
Humor x FI	-1.28	.55	-2.33*
Humor x AI	-1.52	.64	-2.37*
Humor x FI x AI	.35	.16	2.26*
Avoidance Coping	-2.17	4.08	-.53
Avoidance x FI	.64	1.03	.62
Avoidance x AI	.93	1.18	.78
Avoidance x FI x AI	-.23	.30	-.76
Support-Seeking Coping	2.17	4.00	.54
Support x FI	-.28	1.00	-.28
Support x AI	-.46	1.05	-.43
Support x FI x AI	.06	.26	22

Note. Outcome is a count variable. Weekly drinks, Microaggressions and demographic variables including nativity, sex, age, multi-ethnic background and geographic region were controlled for in analysis.

FI = Filipino Identity; AI = American Identity

* $p < .05$, ** $p < .01$, $p < .001$

Figure 1. Proposed moderated mediation model of the mediated relationship between discrimination and problem drinking through coping, moderated by Filipino and American identity.

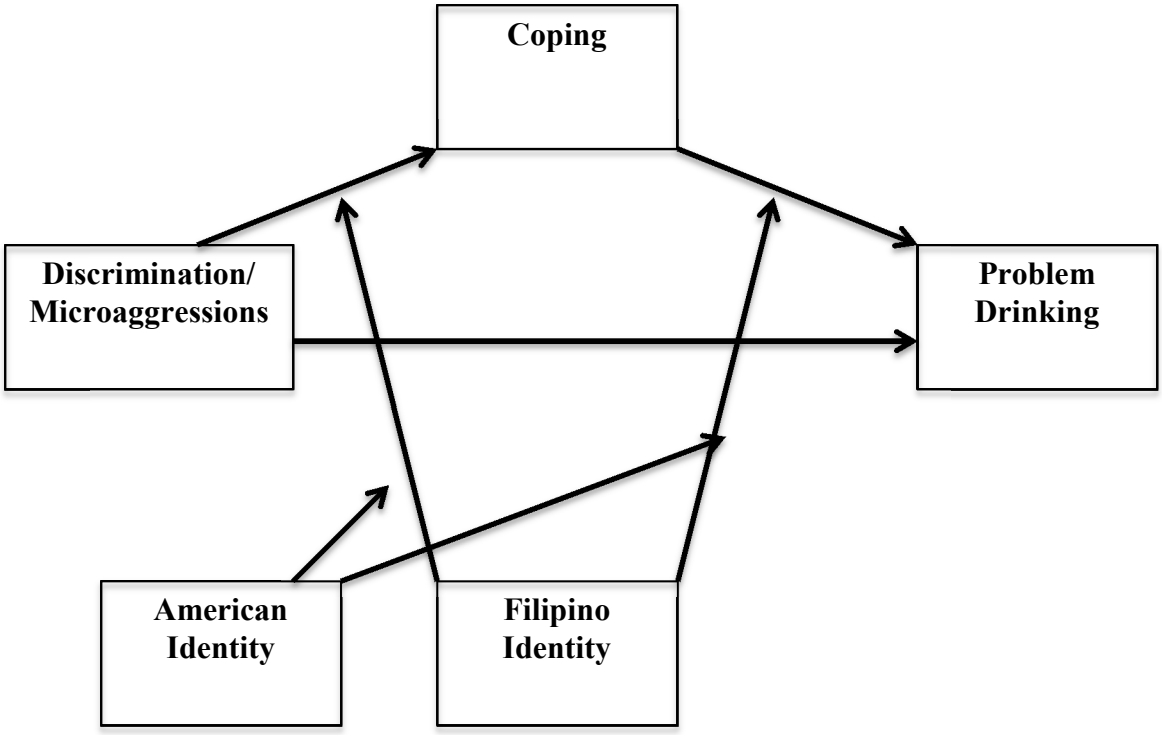


Figure 2. Confirmatory Factor Analysis for FAMS, final 17 item model

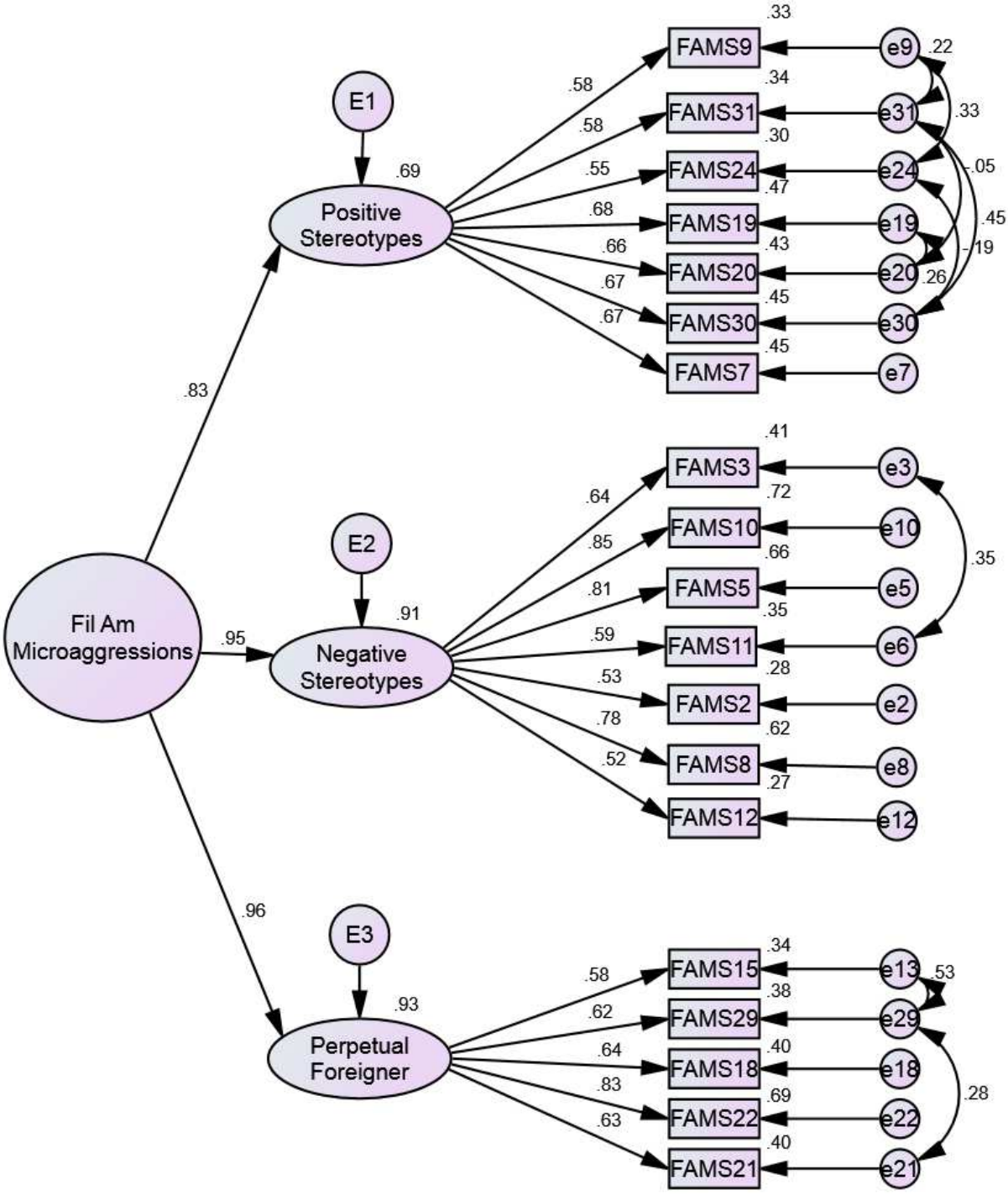


Figure 3. Confirmatory Factor Analysis for FilAmIM-FI, final 15 item model

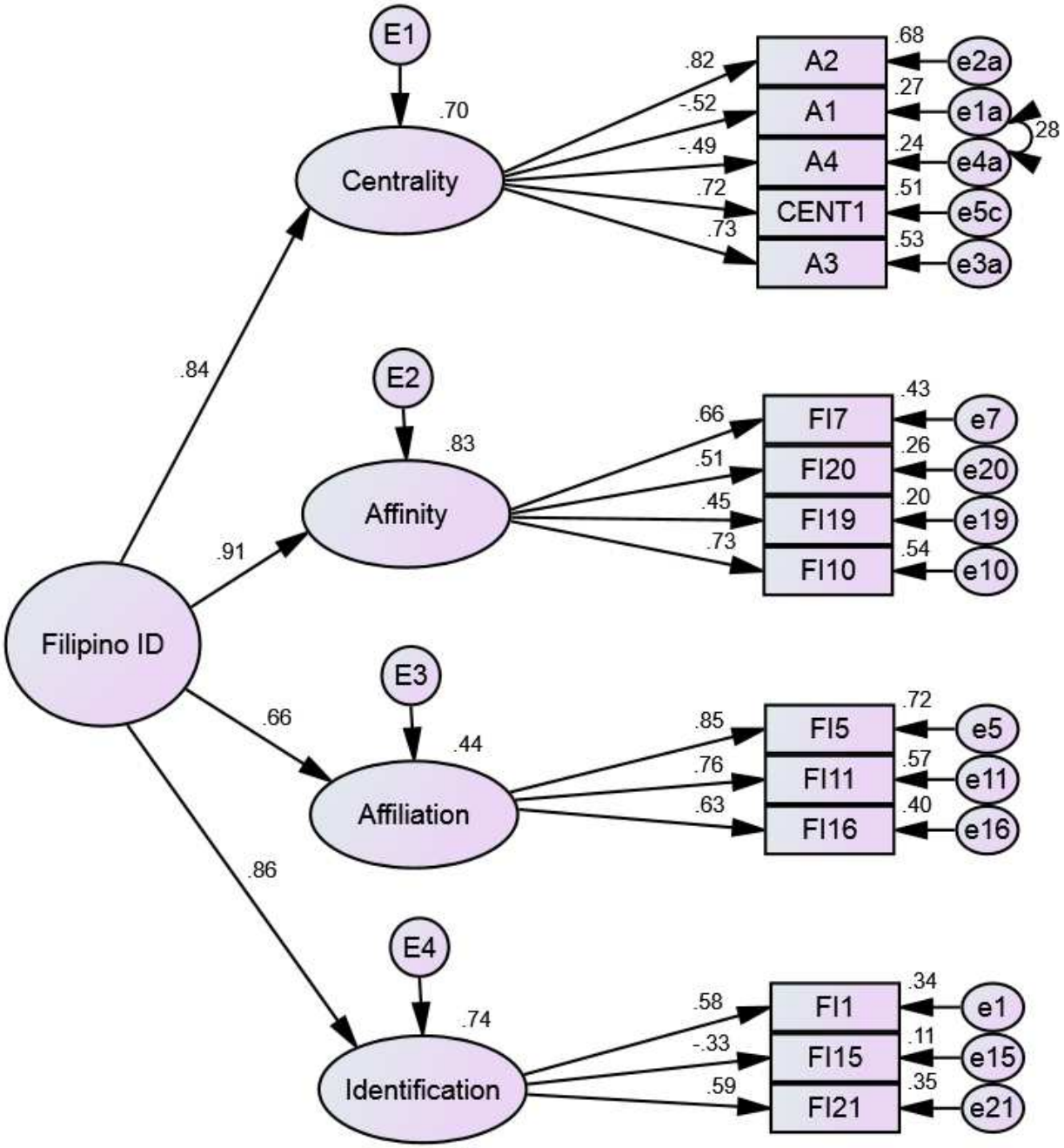


Figure 4. Confirmatory Factor Analysis for FilAmIM-FAI, final 8 item model

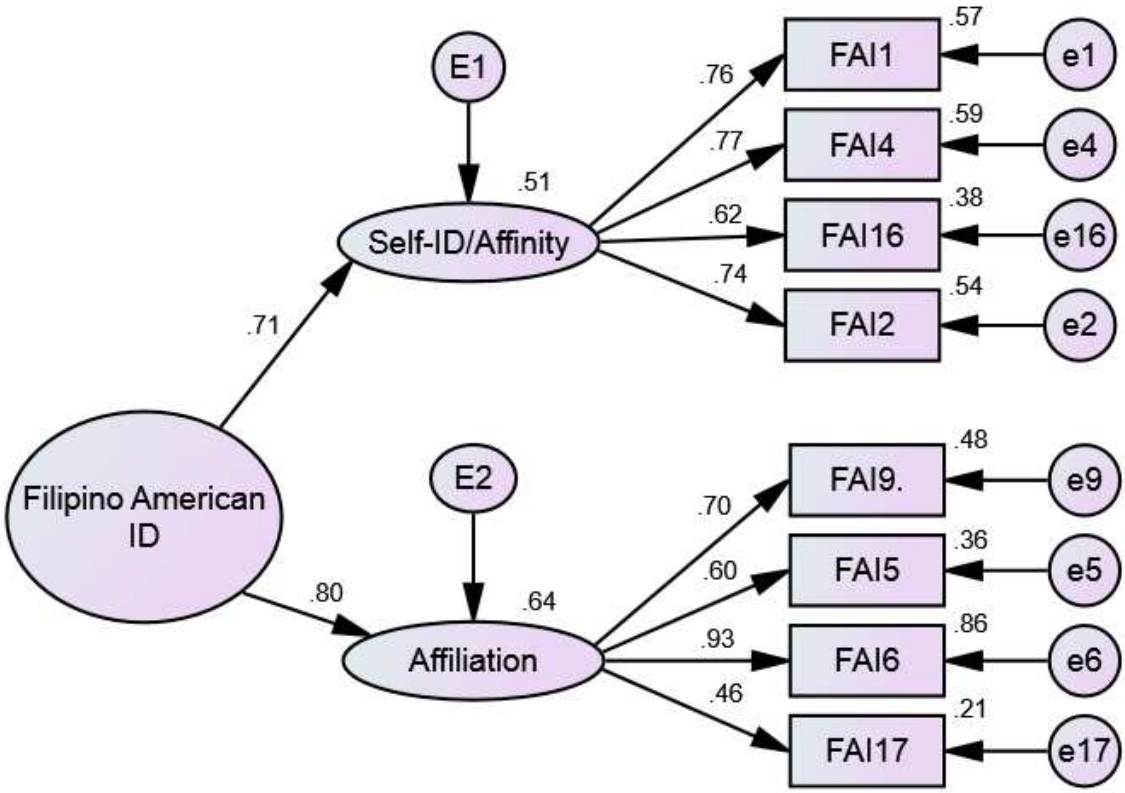


Figure 5. Confirmatory Factor Analysis for FilAmIM-AI, final 11 item model

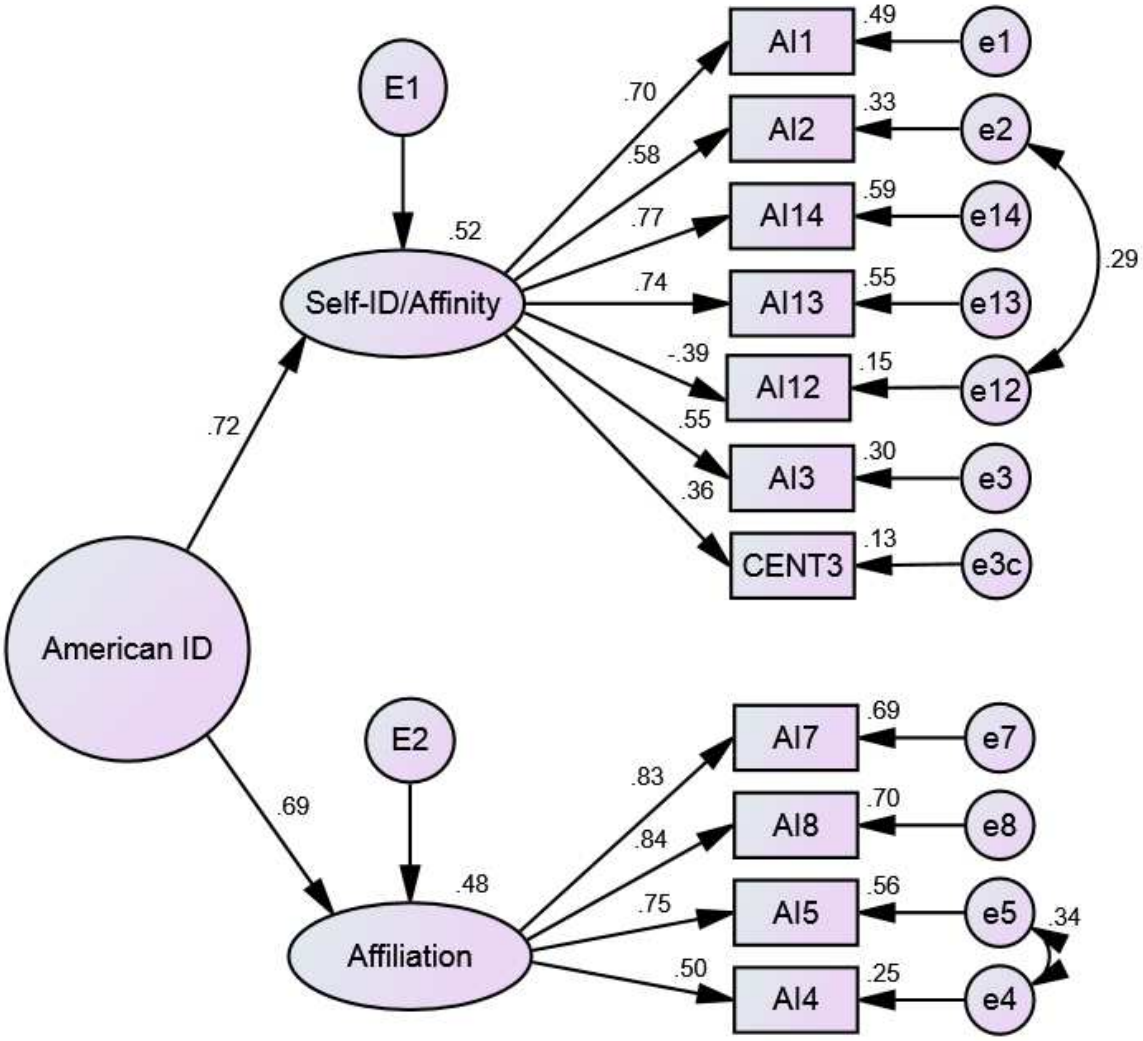


Figure 6. Confirmatory Factor Analysis for FilAmIM-PAI, final 7 item model

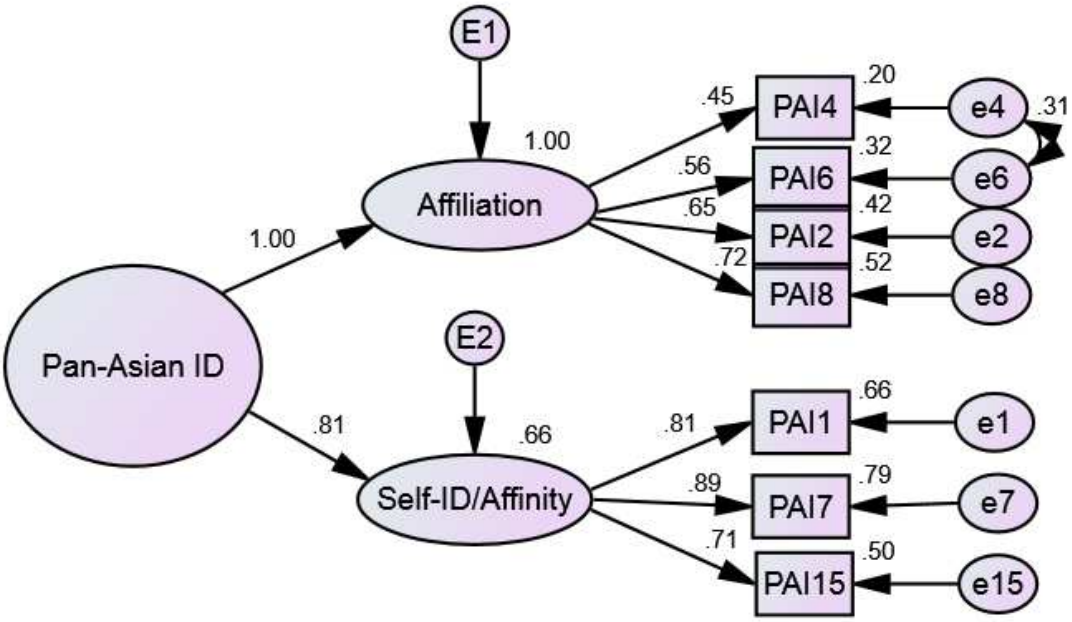


Figure 7. Confirmatory Factor Analysis for FilAmIM-POC, final 7 item model

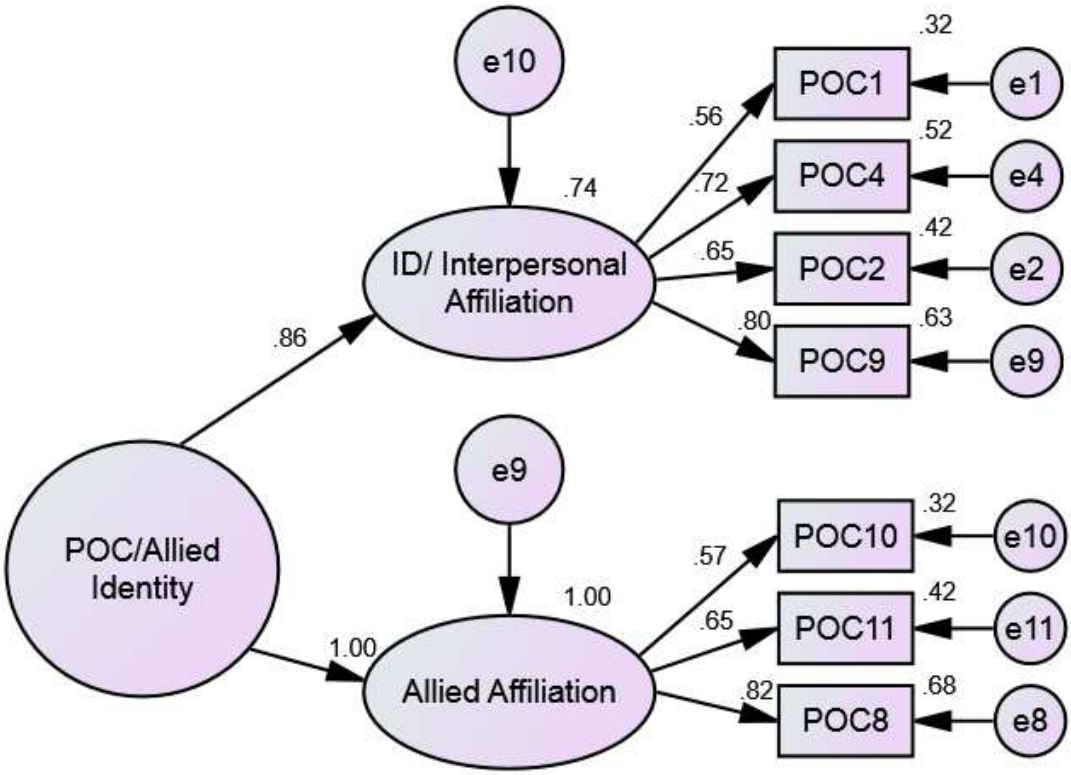
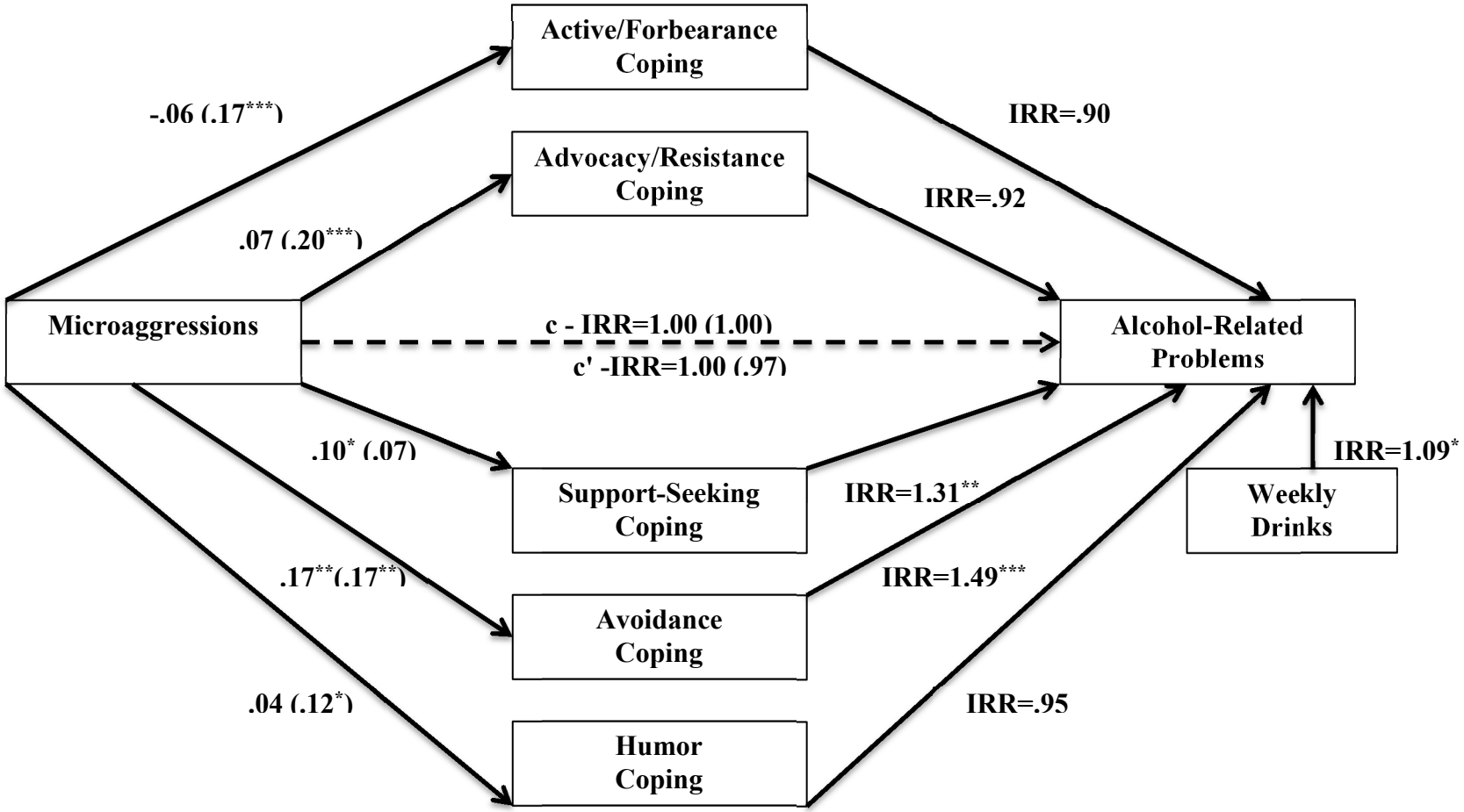
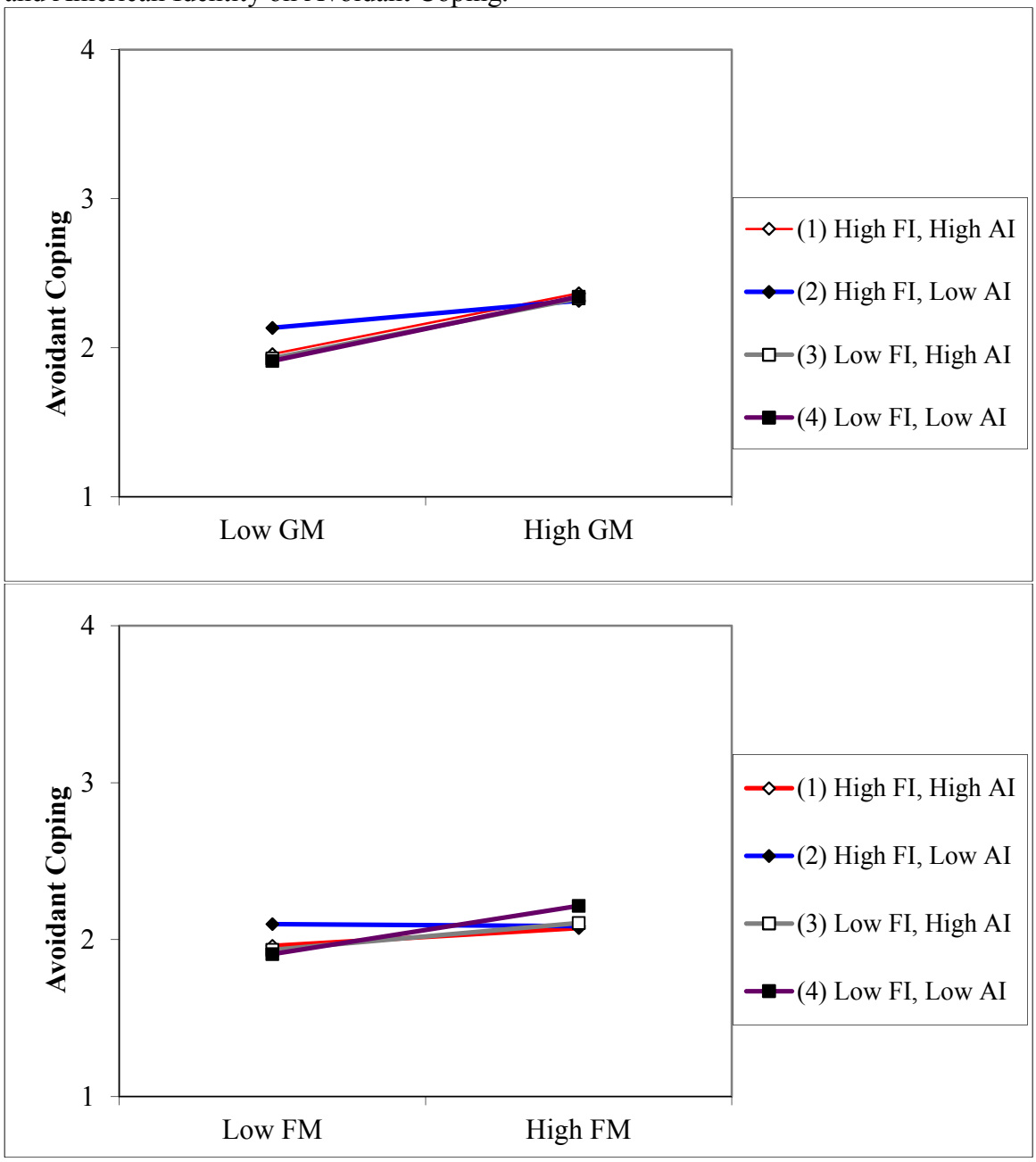


Figure 8. Multiple Mediation Model of Microaggressions and Alcohol-Related Problems through Coping, Controlling for Weekly Drinking.



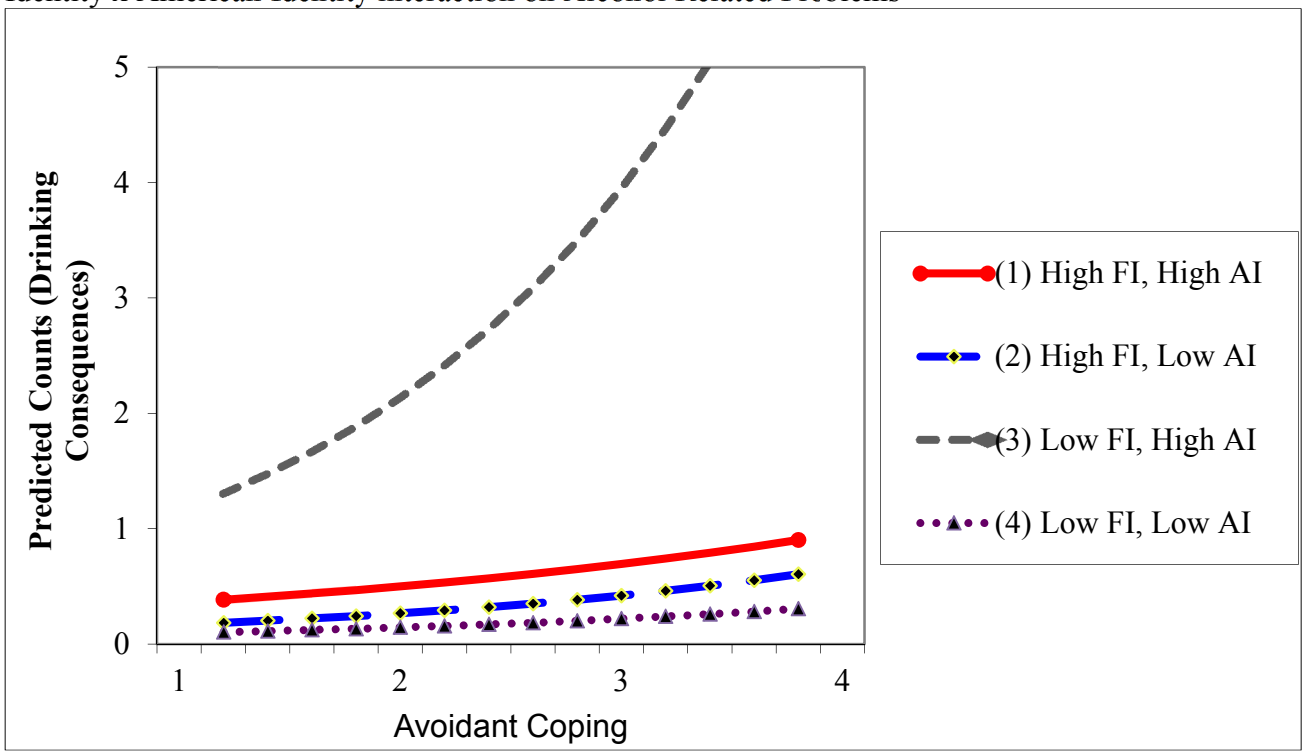
Note. Standardized coefficients are provided on paths to specific coping strategies, while Incident Rate Ratio (IRR) is provided on paths to Alcohol Problems. For direct and partial effects, those outside of parentheses are for general microaggressions while those inside parentheses are for Filipino-specific microaggressions. * $p < .05$, ** $p < .01$, *** $p < .001$

Figure 9. Interaction effects of Microaggressions (General or Filipino-specific), Filipino Identity, and American Identity on Avoidant Coping.



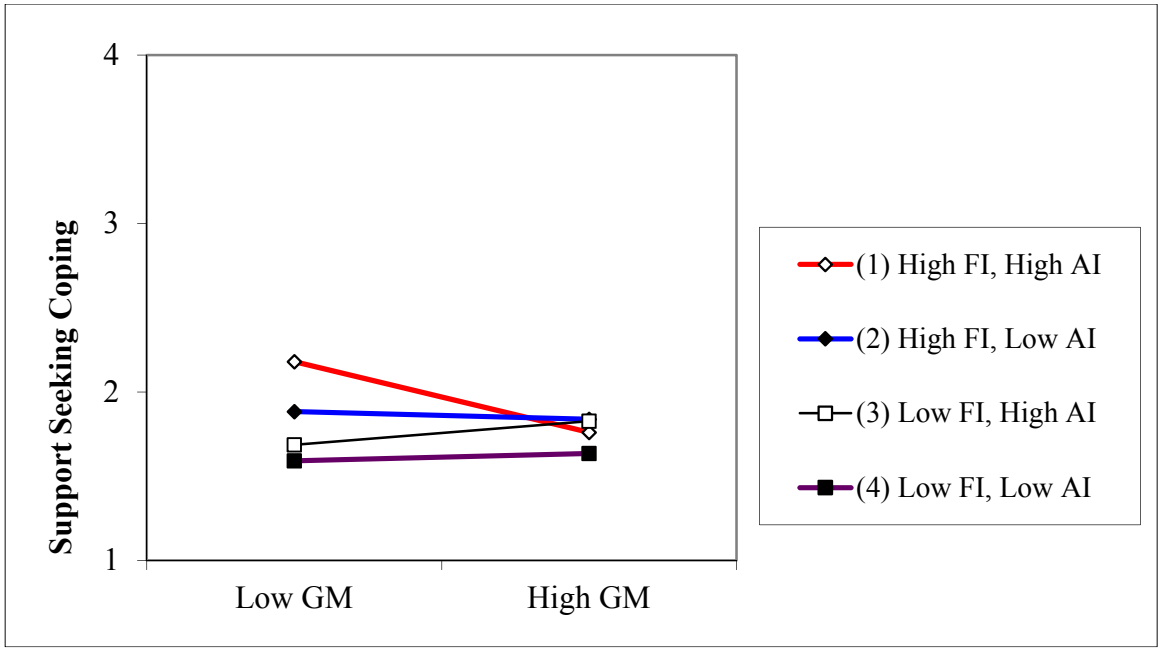
Note. GM = General Microaggressions; FM = Filipino-specific Microaggressions; FI = Filipino Identity; AI = American Identity

Figure 10. Predicted Regression Lines for the (non-significant) Avoidant Coping x Filipino Identity x American Identity interaction on Alcohol Related Problems



Note. FI = Filipino Identity; AI = American Identity.

Figure 11. Interaction effect of General Microaggressions, Filipino Identity, and American Identity on Support-Seeking Coping.



Note. GM = General Microaggressions; FI = Filipino Identity; AI = American Identity

Figure 12. Predicted Regression Lines for the Active/Forbearance Coping x Filipino Identity x American Identity interaction on Alcohol Related Problems

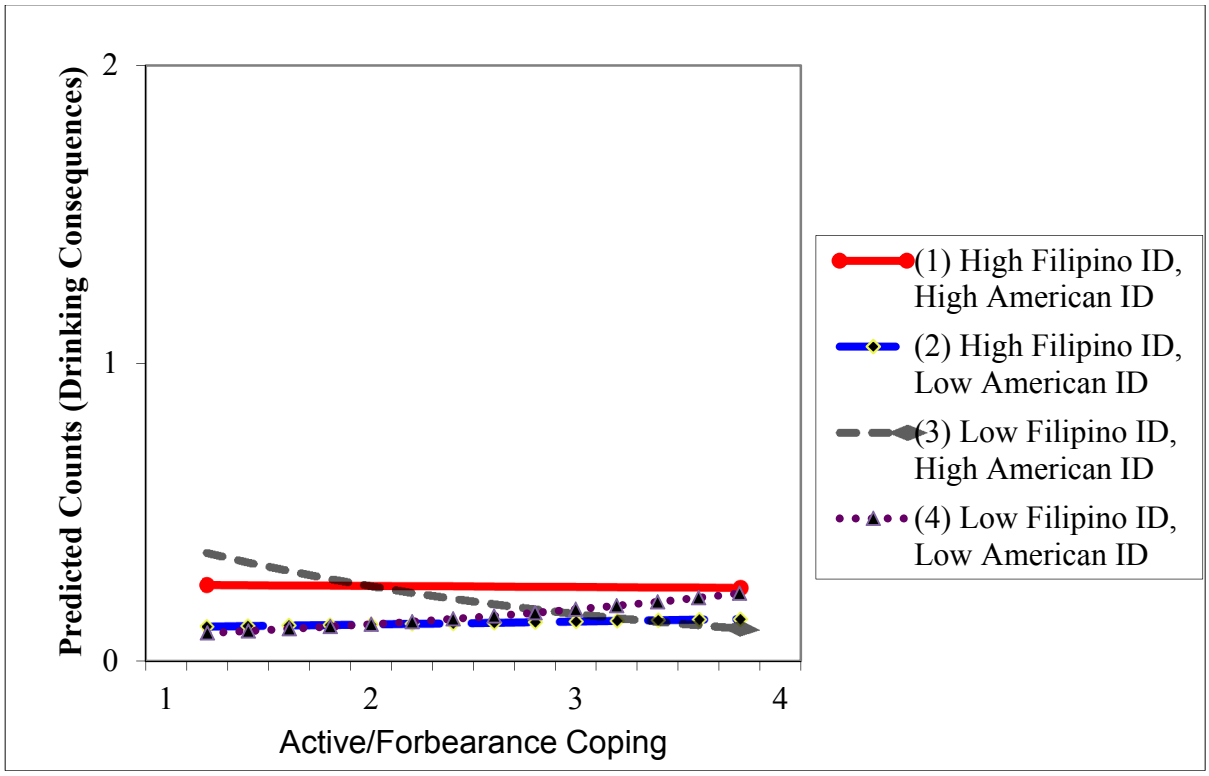
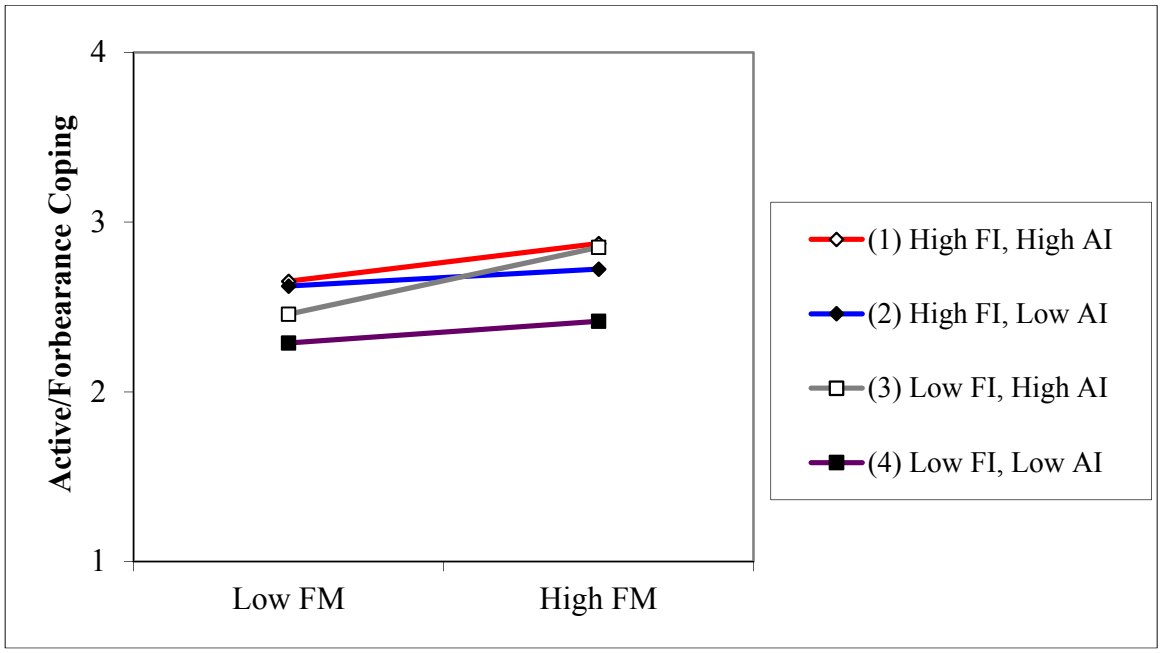


Figure 13. (Non-Significant) Interaction effect of Filipino-Specific Microaggressions, Filipino Identity, and American Identity on Active/Forbearance Coping.



Note. FM = Filipino-specific Microaggressions; FI = Filipino Identity; AI = American Identity

Figure 14. Predicted Regression Lines for the (non-significant) Advocacy/Resistance Coping x Filipino Identity x American Identity interaction on Alcohol Related Problems.

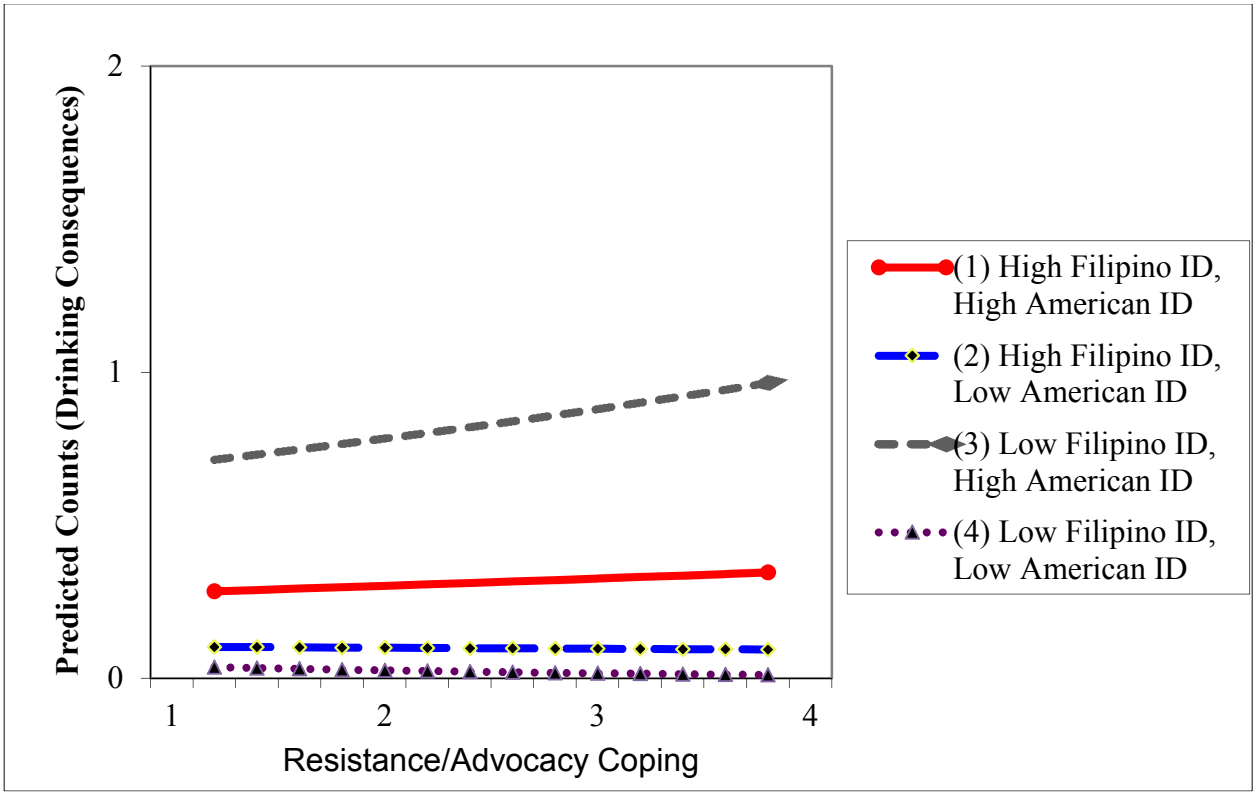
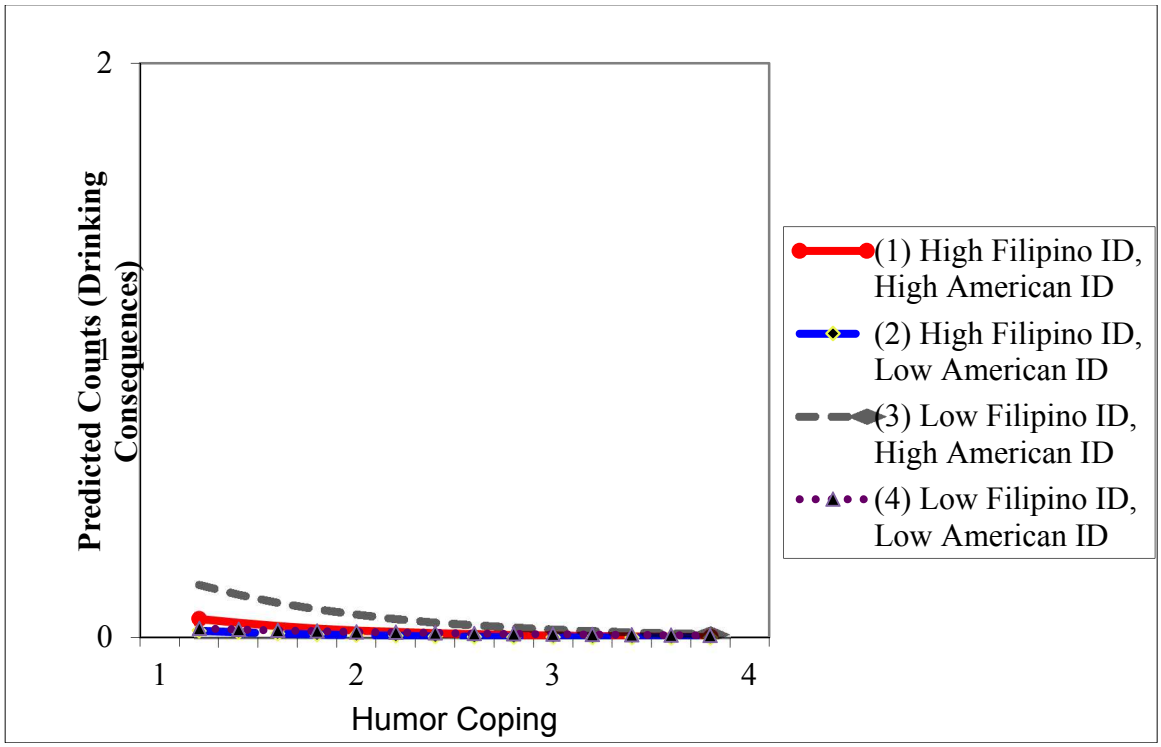


Figure 15. Predicted Regression Lines for the Humor Coping x Filipino Identity x American Identity interaction on Alcohol Related Problems



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Filipin@ American Microaggressions Scale
(Study 2 Version – Administered Online)

Instructions: These questions ask you to think about experiences that some Filipinos/Filipino Americans have had happen to them. Determine how often the experience has happened to you in the past 3 months.

Note: For language, the term "Filipino" refers to any language originating from the Philippines (e.g. Tagalog, Ilokano).

Item scale: How often has this happened in the past 3 months?

0	1	2	3	4	5	6
This has never happened to me	This has happened, but not in the past 3 months	Less than once a month	A few times a month	About once a week	A few times a week	Daily

1. Someone teased me about eating dogs.
2. Someone assumed or made jokes about Filipina women being prostitutes or being involved in sex trade.
3. Someone told me that Filipinos are inferior to other Asian ethnic groups.
4. Someone expected me to be friendly and hospitable because I am Filipino.
5. Someone assumed my education or intelligence would be lower because I am Filipino.
6. Someone mistook my ethnicity for *another* Asian or Pacific Islander group.
7. Someone called me a derogatory term typically aimed at other racial/ethnic groups. (e.g. Hispanic/Latino, Black/African American).
8. Someone assumed or made jokes about Filipino men being effeminate.
9. Someone told me that Filipinos make great workers.
10. Someone assumed that I could not speak English well.
11. Someone assumed I am an undocumented immigrant.
12. Someone assumed that I would bring Filipino food to a social gathering.
13. Someone assumed I am a nurse or in medicine because I am Filipino.
14. Someone assumed I would be poor because I am Filipino
15. Someone assumed or joked about me being a bad driver because I am Asian.
16. Someone assumed that I would speak with an accent.
17. Someone asked me, "where are you really from?"
18. Someone asked me, "what are you?
19. Someone mistook my ethnicity for a *non* Asian or Pacific Islander group

Filipin@ American Identity Measure Scale
(Study 2 Version – Administered Online)

Section A.
The following questions ask about different aspects of identity. Please rate the extent to which each is an important part of your self-identity.

E.g. "My race" is an important part of my self-image.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. My ethnic background (e.g. Filipino, multi-ethnic)	1	2	3	4	5
2. My nationality (e.g. American, Filipino)	1	2	3	4	5
3. My home region/state/province (e.g. Pacific Northwest, Visayas)	1	2	3	4	5
	1	2	3	4	5
4. My religious beliefs	1	2	3	4	5
5. My gender identity (e.g. male, female, or transgender)	1	2	3	4	5
6. My sexual orientation					

These questions ask you to consider your ethnic background.

1. I identify my ethnic background as: _____.

2. Based on my appearance, people typically identify my ethnic background as: _____

3. I would describe my cultural identity as: _____

Section B.

Instructions: There can be many different terms to describe one's background in terms of race, nationality, and ethnic group. The following questions ask you to consider the following groups that you may or may not identify as, and how you feel about or react to them:

- Filipino
- Filipino American
- American
- Asian
- Person of Color/Other People of Color

We understand that this may seem very redundant. It is critically important to the success of this research project that you consider each separately to the best of your ability despite the redundancy.

Section 1a.

Using the provided scale, please indicate what describes your level of agreement or disagreement with each statement.

For this section, "Filipino" refers to any persons who self-identify as Filipino in full or in part, with family origins from the Philippines.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. Being Filipino has very little to do with how I feel about myself.	1	2	3	4	5
2. In general, being Filipino is an important part of my self-image.	1	2	3	4	5
3. Being Filipino is an important reflection of who I am.	1	2	3	4	5
4. Overall, being Filipino is unimportant to my sense of what kind of person I am.	1	2	3	4	5

Section 1b (Filipino ID).

Using the following scale, please indicate the number that best describes your level of agreement or disagreement with each statement.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I consider myself Filipino.	1	2	3	4	5
2. I have a strong sense of belonging with other Filipinos.	1	2	3	4	5
3. If I had a choice, I would be in closer contact with the people and culture of the Philippines.	1	2	3	4	5
4. I take pride in my Filipino heritage.	1	2	3	4	5
5. I fit in well in settings where the majority of people are Filipino.	1	2	3	4	5
6. I question whether I should be considered Filipino.	1	2	3	4	5
7. I can relate to Filipinos.	1	2	3	4	5
8. If given a choice, I would speak a Filipino language on a regular basis.	1	2	3	4	5
9. I would like to be more involved in the Filipino community.	1	2	3	4	5
10. I tell other people that I am Filipino.	1	2	3	4	5

Section 2:

For the next set of items, "Filipino American" may refer to U.S. citizens or residents of Filipino descent. Cultural practice or length of stay in the U.S. may vary.					
Using the following scale, please indicate the number that best describes your level of agreement or disagreement with each statement.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I consider myself Filipino American.	1	2	3	4	5
2. I have clear sense of what being Filipino American means for me.	1	2	3	4	5
3. I take pride in being Filipino American.	1	2	3	4	5
4. I am active in organizations that include mostly Filipino Americans.	1	2	3	4	5
5. I have a strong sense of belonging with Filipino Americans.	1	2	3	4	5
6. I fit in well in settings where the majority of people are Filipino Americans.	1	2	3	4	5
7. I tell other people that I am Filipino-American.	1	2	3	4	5
8. I would like to be more involved in the Filipino American community	1	2	3	4	5

Section 3

For this section, "American" may refer to any United States citizen or resident. "White American" refers to individuals of European descent.					
Using the provided scale, please indicate the response that best describes your level of agreement or disagreement with each statement.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I consider myself American.	1	2	3	4	5
2. I have a clear sense of what being American means to me.	1	2	3	4	5
3. I have spent time trying to learn about American history, traditions, and customs.	1	2	3	4	5
4. I am active in organizations or social groups that include mostly White Americans.	1	2	3	4	5
5. I have a strong sense of belonging with White Americans.	1	2	3	4	5
6. I fit in well in settings where the majority of people are White Americans.	1	2	3	4	5
7. I can relate to White Americans.	1	2	3	4	5
8. I question whether I should be considered American.	1	2	3	4	5
9. I take pride in being American.	1	2	3	4	5
10. I tell other people that that I am American	1	2	3	4	5

Section 4:

For this section, "Asian" refers to any Asian ethnic group, e.g. Chinese, Korean, Japanese. Filipinos are included unless otherwise indicated.					
Using the provided scale, please indicate what describes your level of agreement or disagreement with each statement.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I consider myself Asian.	1	2	3	4	5
2. I spend time trying to find out about Asian history, traditions, and customs, including non-Filipino.	1	2	3	4	5
3. I feel proud when I hear about the success of other Asian individuals, including non-Filipinos.	1	2	3	4	5
4. There are Asian people, including non-Filipino, in popular media (e.g. TV shows, music) whom I relate or look up to.	1	2	3	4	5
5. I take pride in being Asian.	1	2	3	4	5
6. I fit in well in settings where the majority of people are of Asian ethnic background, including non-Filipino.	1	2	3	4	5
7. I tell other people that I am Asian.					

Section 5:

For this section, "people/person of color" refers to any non-White ethnic group, e.g. Black/African American, Hispanic/Latino, Native American/American Indian, etc. This includes Asian ethnic groups unless otherwise indicated.					
Using the provided scale, please indicate what describes your level of agreement or disagreement with each statement.	Strongly Disagree	Disagree	Neutral	Strongly Disagree	Disagree
1. I consider myself a person of color.	1	2	3	4	5
2. I have spent time trying to learn about the history, customs, and community issues of other ethnic groups, including non-Asian.	1	2	3	4	5
3. I fit in well in settings where the majority of people are persons of color, including non-Asian.	1	2	3	4	5
4. I feel proud when I hear about the success of any person of color, including non-Asian.	1	2	3	4	5
5. I can relate to other people of color, including non-Asian.	1	2	3	4	5
6. I am offended when I hear about discrimination towards any person of color, including non-Asian	1	2	3	4	5
7. There are people of color, including non-Asian, in popular media (e.g. TV shows, music) whom I relate or look up to.	1	2	3	4	5