

ACCULTURATION AND PSYCHOLOGICAL ADJUSTMENT
AMONG ARAB AMERICAN ADOLESCENTS

By

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ABSTRACT

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Whether having immigrated to or born in the United States, Arab American children and adolescents grapple with the degree to which they maintain their heritage culture's traditions and values, and the degree to which they participate in mainstream American traditions (Berry, 1997). As they enter adolescence, Arab American children are not only developing independence, a clearer sense of their personal identity, and closer friendships (Erikson, 1968; Phinney, 1989), but also negotiating multiple cultures and forging identities reflecting their Arab and American culture (Abu-Laban & Abu-Laban, 1999; Phinney, 1989).

The goals of this research study were to investigate how acculturation and acculturative stress varied among Arab American adolescents, to determine whether acculturation and acculturative stress predicted psychological adjustment, to report incidence rates of psychological problems in this sample, and to determine whether there were differences between parents and adolescents on acculturation and whether these differences predicted adolescent psychological problems.

One hundred thirty-five Arab American adolescents (ages 11 – 21) completed measures of demographic characteristics, acculturation, acculturative stress, religiosity, and social desirability. Parents ($n = 76$) also completed measures of demographic characteristics and acculturation. Results showed that acculturation varied by age, organizational religiousness, private religious practices, but not by religiousness, spirituality, length of time, or gender. Age, gender, religiosity and length of time in the U.S. were found to significantly predict heritage

cultural orientation but not mainstream or integrated acculturation. Religiosity had the most unique influence in the model. Similarly, these characteristics significantly predicted acculturative stress. Results also indicated that acculturation and acculturative stress significantly predicted fewer psychological problems and lower overall competence. Parent's and adolescent's acculturation were also compared and found to be significantly different only on mainstream cultural orientation. Differences between parents and adolescents on mainstream cultural orientation significantly predicted increased symptoms of adolescent psychological problems, but differences on heritage acculturation orientation predicted fewer problems. Finally, incidence rates of psychological symptoms in this sample were similar to that of the general population

These findings suggest that future research should more closely examine what role religion plays during the process of acculturation and how acculturation is related to psychological adjustment among Arab Americans children and adolescents. Future studies should also consider using a broader demographic of Arab Americans in the sample as well as conducting larger epidemiological studies of prevalence rates of psychological problems. Implications for school psychological practice are also considered.

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DEDICATION

To my parents, Bruce and Cathy Goforth,
and to my sister, Monika

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CHAPTER I

Introduction

Omar and Ayesha are like most other teenagers in their American high school; they enjoy spending time with friends, send frequent text messages with the latest gossip, and watch the latest movies in the cinema. Omar recently emigrated from Yemen and most of his friends are Yemeni, although he has some Lebanese American friends. He is concerned about taking care of his family, and has been worried about getting a part-time job after school, and has been using *nargillah* (water pipe or hookah) to cope with stress. Ayesha was born in Los Angeles. She wears the traditional Muslim headcovering, the *hijab*. She is generally happy with her life and is excited about the prospect of going to college.

Omar and Ayesha experience the process of acculturation in the United States differently. While Omar is a recent immigrant and does not yet identify himself as Arab American, Ayesha was born and raised in an Arab American family and is proud of both her ethnic heritage and nationality. Like the nearly 33.5 million people born outside of the U.S. and who immigrated to the United States in 2003 (U.S. Census Bureau, 2004), Omar and Ayesha are among a significant number of people from Arab nations. In 2004, the U.S. Census Bureau estimated that 1.2 million Arab Americans lived in the United States; however others have estimated that there are currently over three million Arab Americans (Arab American Institute, 2009).

Despite the substantial number of Arab Americans living in the U.S. and the continuing emigration from Arab nations, there is limited understanding of the process of acculturation and the effects of acculturation on their overall psychological adjustment. Acculturation has been defined as the "general processes and outcomes (both cultural and psychological) of intercultural contact" (Berry, 1997, p. 8). Acculturation encompasses an individual's sense of self and

involves changes in attitudes, behaviors, cultural values, and cultural identity (Ryder, Alden, & Paulhus, 2000). Behavioral changes can include “shedding” the cultural practices of their heritage culture (either accidentally or deliberately), and learning about the host culture (Berry, Poortinga, Segall, & Dasen, 2002).

All individuals respond to a changing cultural context, but how individuals respond can differ. An individual emigrating from an Arab nation may differ in the extent to which he or she retains Arab cultural norms and the extent to which he or she participates in the mainstream culture of the United States. Immigrants experiencing acculturation grapple with two opposing issues: (1) cultural maintenance, and (2) contact and participation with the new country (Berry, 1997). *Cultural maintenance* is the extent to which the individual maintains his or her cultural identity, or the amount of maintenance for which they strive. *Contact and participation* with the new country involves the degree to which the individual wants to be involved with the mainstream or majority culture (Berry, 1997). For example, when experiencing acculturation, Omar confronts these two conflicting issues: How much does he want to retain his heritage cultural identity and how much does he want to have contact with and participate in the new culture?

The process of acculturation, however, is not necessarily straightforward. When an individual comes into contact with a new culture, the individual may experience stress through the process of “culture learning and culture shedding” (Berry et al., 2002, p. 361). Indeed, research suggests that when relocating to a new country, the acculturation process can affect mental health, resulting in depression and psychosomatic symptoms (Berry, 1997; Kovacev & Shute, 2004; Lopez, Ehly, & Garcia-Vazquez, 2002).

Culture learning and culture shedding differentially affect psychological adjustment (Berry, 2006; Ward & Rana-Deuba, 1999). Berry (1997) proposed four acculturation strategies, *assimilation, marginalization, separation, and integration*, that are related to the degree to which an individual retains his or her heritage culture and desires contact with the heritage culture. The way an individual responds to the acculturation process, he proposes, is related to psychological outcomes.

Specifically, the *integrated* acculturation strategy is most associated with positive psychological outcomes. Research studies further suggest that maintaining the heritage culture as well as acquiring the culture of the host culture is beneficial to one's mental health (Berry & Kim, 1988). Individuals who experience positive relationships with both cultures (*integration*) have the best foundation for supporting positive mental health, while individuals who do not maintain their cultural identity (*marginalization*) are more likely to have adjustment difficulties.

Acculturative stress is a psychological construct used to explain the link between acculturation and psychological adjustment. It is a kind of stress that can occur during the process of acculturation and may result in anxiety, depression, or psychosomatic symptoms (Williams & Berry, 1991). More concisely, acculturative stress is "a response by individuals to life events (that are rooted in intercultural contact) when they exceed the capacity of individuals to deal with them" (Berry et al., 2002, p. 362). Mental health problems frequently arise during acculturation, but not in every case. How an individual copes with the stressors during acculturation affects the likelihood that mental health problems will occur (Berry & Kim, 1988). Various factors play a role in the likelihood that problems will arise, such as one's appraisal of the acculturation process, characteristics of the individual (age, status, social support), and phase of acculturation (length of time in new culture) (Williams & Berry, 1991).

This relationship between acculturation and mental health is important for understanding how individuals like Omar and Ayesha cope with the stress of transitioning to a new cultural context. Immigrants from Arab countries who arrive to the United States may be at particular risk for experiencing acculturative stress. Some Arab Americans immigrate to the United States to flee political tensions in their home countries or as refugees from war. These traumatic experiences may lead to difficulty with coping in general and difficulty with acculturation in particular. Arab Americans have higher rates of post-traumatic stress disorder compared to the norm in the U.S. population (Rippy & Newman, 2006). Additionally, surveys of Arab American youth suggest a high prevalence of psychological problems. One study found that among Arab American youth, 30% were diagnosed with anxiety disorder, 28% with ADHD, 24% with depression, 13% with ODD and conduct disorders, and 6% with adjustment disorders (Sulaiman, 2008). In comparison, the incidence across all youth in the United States was lower with approximately 25% diagnosed with anxiety disorder, 9% with ADHD, 14% with depression, 1-10% with ODD and conduct disorders, and 2-8% with adjustment disorders (American Psychiatric Association, 2000; National Institute of Mental Health, 2010). Some Arab Americans, therefore, may experience significant challenges in coping with acculturative stress.

In addition to the mental health needs of Arab Americans, the current social-political climate in the United States may pose additional challenges to the Arab American community. The “War on Terror” and the events and aftermath of September 11th have led to increased negative perceptions and acts of discrimination toward the Arab American community (Cainkar, 2004; Haddad, 2004). In a report by the Council of American-Islamic Relations (2006), 135 cases of hate crimes occurred in 2007. Additionally, approximately one in four Americans believe that Islam is associated with hatred and violence (Council on American-Islamic

Relations, 2006). Although over 60% of Arab Americans are Christian (U.S. Census Bureau, 2004), the negative association of the Arab world and Islam has led to increased discrimination against this group. These perceptions and acts of violence toward the Arab American community are additional sources of stressors, and may influence the degree to which an individual desires contact and participation with the American mainstream culture.

Indeed, religion may be an important factor in understanding the acculturative experiences of Arab Americans. Christian Arab Americans experience greater life satisfaction and acculturation to U.S. society compared to Muslim Arab Americans (Amer & Hovey, 2007; Faragallah, Schumm, & Webb, 1997). The central role of religion can be seen in the finding that for Muslim Arab Americans, higher intrinsic religiosity was associated with less depression and higher family functioning while for Christian Arab Americans, this was not the case (Amer & Hovey, 2007). Recent research has found that religious affiliation with Islam was negatively associated with acculturation and positively associated with perceived discrimination (Awad, 2010). Specifically, Muslim Arab American adults experienced more discrimination, more ethnic immersion, and less dominant society immersion compared to Christian Arab Americans. These studies suggest differences in how Muslim and Christian Arab Americans undergo the process of acculturation and differences in religiosity and the subsequent mental health and social effects.

These mental health concerns and the increasing negative perception of the Arab community within the United States suggest a need for better understanding the acculturative experiences of Arab Americans. Research studies have been conducted primarily with adults to examine the relationship between acculturation and psychological adjustment. In one study, Arab American adults completed measures on depression, family functioning, religiosity, and acculturation (Amer & Hovey, 2007). The results suggested that participants who maintained

contact with their heritage culture and associated with U.S. mainstream culture had more positive family functioning and less depression. The results of the study are consistent with Berry's conceptualization and assertion that *integrated* acculturation is more adaptive. Furthermore, the study is important to our understanding of the relationship between the acculturative process and the overall psychological well being among Arab Americans.

This research, however, included only adult samples. It is less clear whether Arab American children and adolescents experience acculturation similarly, or whether maintaining contact with their heritage and host cultures is similarly related to better psychological adjustment. The process of acculturation can be stressful for all immigrants, but it can be particularly stressful for adolescents. Not only are these youth experiencing a significant change in their lives as immigrants, they are also experiencing a period of often dramatic physical and psychological changes. Adolescence can be very stressful as youth reach pubescence and experience conflict in their identity and role in society, and seek to gain entry to peer social groups (Erikson, 1968). Immigrating to a new country, and consequently undergoing a process of acculturation, may intensify and complicate these experiences.

Furthermore, adolescents have more difficulty with cultural transitions than younger children (Berry & Annis, 1974). It is hypothesized that this may be a result of greater conflicts with peers and parents during this particular time of personal development. Research has shown that the relationship between psychological problems and acculturation is mediated by family conflict (Hwang & Wood, 2009). Intergenerational conflict may occur because of differences in levels of acculturation between the parent and child. While parents may want to maintain their heritage cultural traditions, their children may seek more contact with the host culture through

school and greater acceptance by their peers (Portes & Rumbaut, 1996). Furthermore, differences in language use may also lead to misunderstandings and frustration.

Acculturation has also been shown to be associated with psychological adjustment in adolescents. Kvernmo and Heyerdahl (2003) looked at acculturation and ethnic identity as predictors of behavior problems among Arctic minority adolescents in Norway. Indigenous youth who marginalized themselves from the mainstream culture had significantly more externalizing problems than youth who maintained both their heritage culture and participated in the mainstream culture. Similarly, in a study conducted with Australian adolescent refugees, individuals who were more integrated had fewer psychological problems and were given more support (Kovacev & Shute, 2004).

The challenges of adolescence, in addition to the stress of intercultural contact, indicate a need for obtaining a clearer understanding of the relationship between acculturation and psychological adjustment among Arab American adolescents. There is a significant population of Arab Americans under the age of 18 in the United States. In the Detroit metropolitan area, which, has one of the largest populations of Arab Americans in the U.S., 35.8% of the population of individuals of Arab descent are under the age of 18 (Arab American Institute, 2007). With such a large group of Arab American youth, there is a need for research that examines the relationship of acculturation, acculturative stress, and psychological adjustment.

The goal of this study was to examine acculturation, acculturative stress and psychological adjustment among Arab American adolescents. Another objective of this study was to determine whether differences in levels of acculturation in adolescents and their parents were associated with adolescent's psychological problems. In this study, the term "acculturation" was used to characterize changes in behaviors and attitudes that an individual experiences when

undergoing the process of intercultural contact. This term uses a bidimensional definition of acculturation conceptualized as the maintenance of heritage (or ethnic) culture and contact and participation with host (or settlement) culture.

In this dissertation study, I was first interested in understanding levels of acculturation of Arab American adolescents and how that varied across demographic characteristics such as age, gender, religiosity, and length of time in the United States. I then examined how acculturation and acculturative stress might be correlated with psychological adjustment. Finally, I examined whether there were differences between parent and adolescent levels of acculturation and how this correlated with adolescents' psychological adjustment. Specifically, this study addressed seven research questions:

1. Does acculturation (heritage cultural orientation, mainstream cultural orientation, and integrated acculturation) vary by school level, gender, religiosity, and by length of time in the U.S.?
2. How do age, gender, religiosity, and length of time in the United States explain acculturation (heritage cultural orientation, mainstream cultural orientation, and integrated acculturation)?
3. How do age, gender, religiosity, and length of time in the United States explain acculturative stress?
4. How are acculturation and acculturative stress related to psychological adjustment among Arab American adolescents?
5. What is the prevalence of psychological problems in this sample of 11- to 18-year-old Arab American adolescents?

6. Do adolescents and parents have similar levels of acculturation (heritage cultural orientation, mainstream cultural orientation, and integrated acculturation)?
7. If generational discrepancies in acculturation exist, how is it related to adolescent psychological adjustment?

The purpose of this study was to address a gap in the literature by investigating the relationship between acculturation, acculturative stress, and psychological adjustment among Arab American adolescents. Although there is some understanding of the mental health needs of particular immigrant groups as it relates to acculturation (e.g., Asian Americans, Hispanic/Latino), there is a lack of research that examines Arab Americans. The increased negative attention towards the Arab American community also suggested a need for additional research examining their acculturative experiences. There are even fewer research studies that examine the acculturative experiences of Arab American adolescents like Omar and Ayesha. While both adolescents are of Arab descent, their experiences of acculturation are significantly different. This dissertation study provided a first step towards understanding the problems that this population experiences and helped to inform psychologists of ways to provide services to better meet the needs of this population. Furthermore, this study provided some ideas for future research for designing programs to support children and adolescents who are emigrating from Arab nations and ways to develop culturally-relevant interventions that would meet the needs of this population.

CHAPTER II

Literature Review

The goal of this study was to understand how Arab American adolescents experience the process of acculturation and how acculturation is related to acculturative stress and psychological adjustment. This chapter (1) provides a review of the literature on models of acculturation and addresses why the bidimensional model of acculturation was used in this study; (2) discusses the current literature on parent acculturation and suggests that parent acculturation may affect child acculturation and psychological adjustment; (3) discusses the history of Arab American immigration and acculturation to highlight how this community's history and the current political climate have influenced the identity of this community; and (4) discusses theories of adolescent identity and ethnic identity development as they relate to Arab American adolescents. Finally, this chapter concludes with the specific research questions and hypotheses of this study.

Acculturation

Acculturation has been widely studied as a way to understand the dynamic interactions between a person's culture of origin and culture of settlement. Anthropologists and cross-cultural psychologists have been interested in this phenomenon because it addresses the impact that the interaction of the settlement culture and culture of origin has on human behavior and attitudes. The process of acculturation can be defined in numerous ways, but the research literature has primarily defined acculturation as "the dual process of cultural and psychological change that takes place as a result of contact between two or more cultural groups and their individual members" (Berry, 2005, p. 2). A classic definition by Redfield, Linton, and Herskovits (1936) still captures the essential elements of acculturation: "Acculturation comprehends those phenomena which result when groups of individuals having different cultures come into

continuous first-hand contact, with subsequent changes in the original culture patterns of either or both groups” (p. 149). This definition highlights the dynamic process of acculturation, in which both groups are affected, and potentially changed, as a result of coming into contact with each other. The study of acculturation thus focuses on the interactions between groups and the groups’ cultural changes that occur from this interaction. This change usually occurs when two separate cultures intersect in some way, such as when the cultural values of two dominant cultures conflict or when a minority group’s cultural practices differ from that of the dominant cultural group.

Although these group changes are important in several fields of research, including anthropology and sociology, the field of psychology has examined this phenomenon at the individual level. Berry (1997) distinguishes acculturation from general cultural relations in that “at the group level, it involves changes in social structures and institutions and in cultural practices,” while “at the individual level, it involves changes in a person’s behavioral repertoire” (pp. 2-3). Thus at the individual level, acculturation can be defined as a developmental process resulting in changes in attitudes and behaviors. Oppedal (2006) further purports that acculturation is the “process towards gaining competence within two distinct cultural domains in order to have a sense of belonging and be able to participate successfully in both” (p. 97). Oppedal therefore argues that acculturation is the process by which individuals are able to negotiate two cultures and are able to adjust to, and develop within that new culture. Furthermore, acculturation development recognizes that continual change and growth in an individual’s original culture as well as other sociocultural contexts in which he or she participates.

Models of acculturation. Research on acculturation has primarily used one of two models of acculturation: a unidimensional model or a bidimensional model. The unidimensional model of acculturation was first proposed by Gordon (1964). In this model, individuals from one culture assume the cultural norms, values, and beliefs of the culture in which they come into contact. The view was that immigrants to a country would adapt to the mainstream culture by disconnecting from their heritage culture and adapting to the new culture. Gordon argued that the more contact the immigrant has to the host culture, the more he or she loses the home culture and the more he or she assimilates to the new host culture. The process of complete adaptation may be different for different individuals, but the outcome would be the same (i.e., complete assimilation).

The unidimensional model is perceived as contentious, however, because it assumes one direction of cultural change (van de Vijver & Phaet, 2004). Some have argued that the direction of cultural change should not be one way; rather, immigrant groups have argued that they want to continue to identify with their culture of origin. Instead of adapting to the host culture and losing their heritage cultural norms and values, they desire a dual-identity with their culture of origin and their host culture.

Another model that has been proposed defines acculturation as “second culture acquisition” (Rudmin, 2009). Acculturation, according to this model, is a process of cultural learning in which an immigrant learns the settlement’s cultural norms and behaviors. Enculturation from the heritage culture occurs naturally, in which the cultural norms and behaviors are learned as part of development (i.e., first culture acquisition). When immigrating to a new culture, second cultural acquisition occurs, in which individuals adopt and assimilate the culture of the new society. Rudmin (2009) argues that this definition of acculturation more

accurately captures the process of cultural learning because second culture acquisition requires a new set of schema in which practices, norms, and behaviors must be learned in addition to the current one's current practices, norms and behaviors. Second culture acquisition at the individual level is the assimilation of a new culture.

Other researchers (e.g., Berry, 2009) argue, however, that this model and definition of acculturation is insufficient in explaining a very complex process. Acculturation is not simply accumulating the cultural norms, behaviors, and values of a new, alien culture. Rather, acculturation “involves working out how to live with and between two cultures” (Berry, p. 368). It is not just accumulating a set of practices or behaviors; instead, acculturation is a process by which an individual must negotiate the new culture while simultaneously determining whether to maintain the practices and beliefs of his or her heritage culture. The bidimensional model of acculturation has been proposed to address this complex process by describing how individuals may respond to intercultural contact, and to the degree to which he or she would identify with his or her heritage culture as well as the new culture (Berry, 1997). In sum, acculturation is defined as the degree to which individuals experience cultural maintenance of their heritage culture in relation to their contact with and participation in the host culture.

In the current study, a bidimensional model of acculturation was utilized because (1) at the individual level, acculturation is characterized as a dynamic process in which it is not assumed that the individual will completely shed his or her heritage culture and assimilate to the host culture, (2) at the group level, acculturation can result in changes to both the immigrant group and majority group, and (3) this conceptual model has been researched in the literature and shown to have strong validity across cultures.

Using a bidimensional model in this study suggests that, at the individual level, the process of acculturation does not necessarily result in complete shedding of one's heritage culture. Instead, it is possible that an individual can maintain his or her heritage culture at the same time as learning and negotiating a new culture. Historically, there has been the perception that it is important for an immigrant to incorporate the cultural norms of the mainstream society. Often, it has been perceived that it is for the benefit and general well-being of immigrants to shed their heritage culture and assume the values and behaviors of the mainstream culture. The underlying assumptions of this perspective were that immigrants' culture was not valued, and perhaps even "uncivilized," and consequently, immigrants should assimilate to the mainstream (usually Western) culture.

Similarly, at the group level, a unidimensional view of acculturation also did not acknowledge the influence of the immigrant culture on the majority culture. According to the bidimensional model, when two groups come into contact, both groups may be affected. One example may be when aspects of Indian culture such as wearing the *bindi* or wearing Indian fabrics became popular in mainstream American culture. This model acknowledges that both groups, not just the immigrant group, could experience change. Although this study uses the bidimensional model at the individual level by examining psychological change in adolescents, the assumptions of this model at the group level are also important for understanding how an immigrant group was observed or understood by the researcher.

The third reason that the bidimensional model of acculturation was utilized is that there has been a great deal of conceptual and empirical support for this model. Studies using the bidimensional model have been used across populations and within different societies (Huynh, Howell, & Benet-Martinez, 2009; van de Vijver & Phalet, 2004). Moreover, bidimensional

measures of acculturation such as the General Ethnicity Questionnaire (Tsai, Ying, & Lee, 2000) and Vancouver Index of Acculturation (Ryder et al., 2000) have been shown to have high reliabilities ($\alpha > 0.80$) across ethnic groups. This model has been widely accepted in the literature as a way of understanding immigrants' experiences of transitioning to a host culture.

Acculturative stress. During the process of acculturation, some people may experience a variety of stressors associated with their personal characteristics, perceptions of the dominant culture about their group, or factors related to their immigration. Acculturative stress “refers to one kind of stress, that in which the stressors are identified as having their source in the process of acculturation” (Berry, Kim, Minde, & Mok, 1987, p. 492). Acculturative stress is the behavioral response to the intercultural contact and is a way to understand how the interaction between cultures affects an individual psychologically. Immigrants' experiences of entering a new culture can differ based on how they are able to cope with the stressors related to acculturation, and can result in a variety of physical, psychological, and social changes.

When coming into contact with a new culture, an individual may adapt his or her behavior to the settlement culture. Behaviors are modified to fit with the cultural norms of that society. When individuals have the capacity to deal with the demands of acculturation and are able to make behavioral changes that are adaptive to the host culture, acculturative stress may not occur. However, for some individuals, the demands may exceed their ability to cope and consequently, they experience acculturative stress.

Berry's (2006) model of acculturative stress provides a way to understand these stressors and the potential impact this stress has on the individual. The process begins at the group level, in which the contact between the “society of origin” and the “society of settlement” occurs, and initiates the process of acculturation. The individual experiences acculturation as a result of

contact between the two societies. A number of moderating factors can influence from this contact at an individual level. For example, how the person is able to maintain cognitive control and appraise each problem that arises determines whether the individual will experience any stress. Some individuals will have the social support and certain demographic characteristics that can function as protective factors for the acculturation experience. Other individuals, however, may not have these protective factors and may be less able to deal with the stress. As a result, psychosomatic or psychological symptoms may be manifested. Ultimately, adaptation or adjustment to the current situation occurs (Berry, 2006).

The moderating variables in Berry's model are important in understanding why there may be individual differences in coping with acculturative stress. There may be differences in personal characteristics and factors related to the immigration itself that affect whether he or she experiences acculturative stress and whether such stress results in psychological outcomes (Wrobel, Farrag, & Hymes, 2009). Among Arab Americans, personal characteristics such as language, level of education, and family support may play a role in the development of acculturative stress. Among immigrant and ethnic groups, English fluency, income, and education provide more opportunities for success (Ajrouch, K. J., 2007). Bilingual fluency, for example, allows immigrants to maneuver a new cultural environment without compromising their values and behaviors from their heritage culture. For Arab Americans, however, achieving bilingualism may be particularly challenging because Arabic and English are orthographically different (Wrobel et al., 2009). Learning to read English, which uses an alphabetic orthography that is read from left to right, would be difficult for an Arabic-speaking person who is used to reading a different orthography and reading right to left.

Age and gender are also factors in acculturative stress. Arab Americans who are older upon entry have poorer overall adjustment and life satisfaction (Faragallah et al., 1997). When immigrating to a new culture, it may be more difficult to adapt when the heritage cultural values and behaviors have been ingrained since childhood. Early age at immigration predicts better overall well-being (Carlin, 1990). Therefore, individual differences in acculturative stress may be partly due to an individual's age when entering the new culture.

Furthermore, as individuals develop across childhood and adolescence, they are also embedded within different ecological contexts (Bronfenbrenner, 2001). These social contexts include their immediate and extended family as well as individuals with whom they interact in school and community. As adolescents develop, they may initially interact primarily with family or close family friends, but as they progress from middle school to high school, and eventually to college or work, they are likely to come into contact with widening spheres of individuals including those outside of their ethnic group. These broader social environments are likely to provide exposure to a variety of individuals (e.g., co-workers, teachers), who, consequently, may influence their experiences of stress during the process of acculturation.

Gender differences may also be a factor in acculturative stress. Among some immigrant groups, females have more difficulty adapting to a new culture compared to males (Hurh & Kim, 1990). Differences in gender roles between cultures may influence the degree to which immigrant women interact with the mainstream culture. Arab American women may be at particular risk for mental health problems because they may feel pressure to conform to Western standards of behavior (e.g., dress; Meleis, 1991) which may conflict with Arabic practices and customs. Other research suggests, however, that Arab American women do not differ

significantly from males in acculturative stress, family dysfunction, or depression (Amer & Hovey, 2007).

Finally, family support may also affect acculturative stress. Individuals immigrating to a new culture often leave family behind... Arab culture could be characterized as being collectivistic (Gregg, 2005), in which multiple members of the family live together and rely on each other for the family's well-being. When immigrating to a new country, Arab Americans may be leaving members of their extended family in their home country which may affect Arab Americans' ability to cope with stress.

In sum, acculturative stress results when the demands of acculturation exceed the immigrant's ability to cope. Personal characteristics such as one's language fluency, level of education, age, ecological context, and gender play a role in whether an immigrant is able to cope during the process of acculturation. Loss of family support and immigration itself may also place additional stress on the immigrant.

Religiosity and religious affiliation. Involvement in religious faith traditions and practices and participating in a religious organization are important in most Americans' lives. Nearly 65% of Americans believe that religion is an important part of their daily lives (Newport, 2009). Religion, ethnicity, and culture are often inseparable, especially within some ethnic communities such as Arab Americans. Religious practices, values, and beliefs are part of every aspect of Arab American community, including child rearing, education, relationships with others (Ajrouch, K. J., 2000). Moreover, religious practices are often rooted in local customs. The practice of Islam, for example, differs across different Arab societies. The differential treatment of women and men is not solely based in traditional practices; rather, it is rooted in the patriarchal system in the society (Marvasti & McKinney, 2004). Religious practices and

religiosity therefore may pervade both ethnic and cultural practices and may be important variables to consider when examining Arab American acculturative experiences and psychological adjustment.

Religion is multifaceted and multidimensional, including an individual's cognitions, emotions, and behavior (Hackney & Sanders, 2003). Religion has been examined in many different ways, including religious affiliation, religiosity, and religious coping. Religiosity is one component of religion which has been broadly defined as "phenomena that include some relevance to traditional institutionalized searches to acknowledge and maintain some relationship with the transcendent" (Hill & Hood, 1999; ctd. in Hackney & Sanders, 2003). One way that religiosity has been conceptualized is terms of three components: affective, behavioral, and cognitive components (Cornwall, Albrecht, Cunningham, & Pitcher, 1986). The cognitive component of religiosity relates to the degree of orthodoxy or religiousness. The affective component concerns how an individual feels about beliefs, objects, and practices related to the religion. Finally, the behavioral component includes practices and behaviors related to religion (Cornwall et al., 1986).

Religion is an important part of many American's lives, so it is perhaps not surprising that research studies have shown that there is a significant, albeit small, association between religiosity and psychological adjustment. In a meta-analysis, religiosity was found to have a weak yet significant relationship ($r = 0.10$) with mental health (Hackney & Sanders, 2003). In another meta-analysis, similar small but robust findings (omnibus effect size = -0.94) were found between religiousness and depression (Smith, McCullough, & Poll, 2003). These weaker associations, however, may be due to the lack of clarity in the definition of religiosity. Religiosity has been defined as personal devotion to the faith, attendance or participation in

religious institutions, or general spirituality. When specific variables were clearly defined, however, there is a somewhat stronger relationship (Hackney & Sanders, 2003). This suggests that although there has been a weak association found between religiosity and mental health, the constructs have been very general or abstract. Operationalizing these concepts more concretely may help researchers understand how and why this association exists.

Kendler and his colleagues (2003) operationalized religiosity more specifically by including scales that measured social religiosity (daily spiritual experiences and religious coping), general religiosity (involvement with spiritual issues and active involvement with God), and belief in deity using samples from the population-based Virginia Twin Registry. They found that religiosity was associated with lifetime psychiatric disorders and substance abuse. Specifically, higher social religiosity was negatively associated with five internalizing disorders (major depression, generalized anxiety disorder, phobia, panic disorder and bulimia) and four externalizing disorders (nicotine dependence, alcohol dependence, drug abuse or dependence, and adult antisocial behavior). For example, social religiosity was negatively associated with generalized anxiety disorder (odds ratio of 0.87).

These studies suggest a clear, but weak, association between religiosity and mental health. These studies, however, were conducted with adults and did not specify whether there would be differences among ethnic minority groups. Studies examining religiosity and psychological adjustment with Arab Americans found differences between Christian and Muslim second-generation Arab Americans in acculturation, religiosity and mental health (Amer & Hovey, 2007). Muslim Arab Americans reported higher levels of Arab cultural practices (e.g., listening to Arab music, eating Arabic foods) and higher levels of intrinsic religiosity. Moreover,

religiosity was correlated with better family functioning and less depression for Muslims but not for Christians.

These differences in religious affiliations and religiosity may be due to the close relationship between religion and cultural practices and ethnic identity. Among Arab Americans, religious practices often coincide with traditional customs. Religious affiliation (whether Christian, Jewish, or Muslim) may also denote one's ethnic identity (Haddad, 1994). In Arab societies, communities are often comprised of families with similar religious affiliation and individual's identity is closely tied with one's religion and ethnic group.

The relationship between religion and ethnic identity has been studied in the psychological literature and found to be associated with psychological adjustment. In a study of Israeli Muslim Palestinian adolescents, for example, a significant relationship was found between adolescents' ethnic identity, religion and psychological well-being (Abu-Rayya & Abu-Rayya, 2009). Palestinians' religious identity was associated with higher degrees of positive affect, self-esteem, and social relationships. Ethnic identification and religious identity are important aspects of Palestinian social identities. The authors concluded that perhaps it is not only ethnic identification that is an important factor in adolescents' social identity, particularly among Muslim Palestinian adolescents. Religious beliefs may be a salient part of their identity that may play an important role in their psychological functioning.

Similarly, for some individuals from ethnic minority groups, religion may be considered more important than either ethnicity or nationality. In a study of Turkish-Dutch Muslim adults, religious identity was an important component of their ethnic identity (Verkuyten & Yildiz, 2007). In this sample, the majority of the participants reported low levels of identification with their nationality but reported high ethnic and religious identification. The authors suggested that

in the Netherlands, there is a negative public perception of Islam and that this may lead to increased in-group identification. Perceived group rejection may lead to a stronger commitment and support towards one's own ethnic and religious groups. Indeed, one's ethnic group (Turkish) may overlap or even be defined as part of the religious (Muslim) group. Although this study was conducted in the Netherlands, there is a similar perspective about Islam in the United States. If Muslim Americans similarly perceive group rejection or discrimination towards their religion, they may be motivated to identify more strongly with their religious group.

For Muslim Americans, the association between religiosity and self-esteem has been found to be moderated by perceived discrimination (Ghaffari & Ciftci, 2010). In a recent study, adult Muslim Americans completed measures of religious behavior, religious attitudes, and self-esteem (Ghaffari & Ciftci, 2010). Religious behavior was measured with items about religious service attendance, praying outside of religious services, and self-reported religiousness. Religious attitudes included measures from the Muslim Attitude Towards Religion Scale, which includes items about personal commitments to Islam. Perceived discrimination was a moderating variable suggesting that among these Muslim Americans, individual's self-esteem was more likely to be associated with religiosity when they perceive that others are discriminating against them.

Research has also found a strong association between religion and perceived discrimination among Arab Americans, including adolescents. A recent study examined religious affiliation and perceived discrimination among Arab Americans between the ages of 14 and 65 (Awad, 2010). Forty-five percent of the participants were Christian, 42% were Muslim, 10% did not respond and 3% reported other religions. Participants completed measures of acculturation, ethnic identity, and perceived discrimination. Those identifying themselves as Muslims reported

having higher levels of ethnic identity affirmation and more discrimination compared to those of the Christian faith. Among Arab Americans who were highly acculturated, Muslims still perceived more discrimination compared to Christians. Acculturating to the mainstream society does not appear to buffer the effect of discrimination among Muslim Arab Americans.

Overall, religion has been found to be an integral part of an Arab American's life as evidenced by its incorporation into their daily practices, traditions, and values. Religion is often infused in their ethnic and cultural identities, especially for Muslim Arab Americans. Identifying oneself as Muslim has strong implications for psychological adjustment within the United States because it is associated with being a member of an ethnic group as well as consisting of traditional practices that differ from those of the mainstream culture. The degree of religiosity is also important, because it has been associated with psychological adjustment. Muslims who endorse higher intrinsic religiosity have better overall mental health (Amer & Hovey, 2005). Differences in religiosity may thus have important implications in adolescents' psychological adjustment.

Acculturation strategies. Immigrants have been found to acculturate in different ways, which in turn affects the way they cope with acculturative stress. The bidimensional model of acculturation defines acculturation as the degree to which an individual maintains his or her heritage culture and degree to which he or she wishes to have contact and participation with the host culture. Berry (1997) proposed four ways that immigrants seek to acculturate, called acculturation strategies: *assimilation, integration, separation, and marginalization*. Each acculturation strategy represents whether the individual wishes to establish a relationship with the host culture and whether the individual wishes to maintain a relationship with his or her culture of origin. *Assimilation* is involved when the individual does not wish to continue a

relationship with his or her culture of origin, and seeks a relationship with the host culture. *Separation* is involved when the individual values his or her culture of origin and seeks opportunities to retain relationships with his or her heritage culture, but, does not desire interactions or relationship with the host culture. *Marginalization* is involved when the individual does not want a relationship with either his or her culture of origin or with the host culture. Finally, *integration* is when the individual wants to maintain a relationship with his or her culture of origin and also wants to develop a relationship with the host culture. Individuals are theorized to use one of these four strategies when coming into first-hand contact with a new culture.

Integrated acculturation. Of particular interest in this study is the finding that the integrated acculturation strategy was associated with positive psychological outcomes (Berry, Phinney, Sam, & Vedder, 2006). Integrated acculturation, sometimes termed biculturalism, refers to an individual favoring both his/her heritage culture as well as his/her mainstream or dominant culture. Immigrants to a new culture, therefore, desire to keep those salient aspects of their heritage culture while at the same time adopt aspects of the settlement culture (Berry, 2003).

The desire to maintain one's heritage culture, while at the same time participating in the new culture, has been associated with positive psychological adjustment. In one of the largest cross-cultural studies of acculturation, Berry, Phinney, Sam, and Vedder (2006) were interested in how acculturation strategies were associated with positive psychological outcomes. Over 7000 immigrant (first and second-generation) youth from 26 cultural backgrounds in 13 countries were included in the study. Acculturation strategies (marginalization, assimilation, integration, separation) were measured on five main domains: cultural traditions, marriage, language, social activities, and friends. In addition, measures of cultural identity, acculturation behaviors

(language preference, peer contacts), family relationships, perceived discrimination, self-esteem, and psychological adaptation were included. Overall, youth who used the integration acculturation strategy had higher psychological adaptation scores compared to youth who used other strategies. The youth who were able to identify with both their heritage and host culture appeared to have better psychological adjustment.

Although Berry and his colleagues, as well as other researchers (e.g., Ward & Rana-Deuba, 1999) have shown that integrated acculturation is associated with more positive outcomes, other researchers (e.g., Rudmin, 2006; Rudmin & Ahamadzadeh, 2001) have criticized these studies on psychometric grounds. Rudmin (2003, 2008) has suggested that the psychometric techniques used in these studies to test Berry's four-fold acculturation model are generally weak and do not, in fact, predict poor psychological adjustment (defined as feeling marginalized and stress).

In Berry and colleagues' cross-cultural study, for example, Rudmin (2008) argues that the measures used in the study had low validity, low reliability, lacked divergent validity, and confounded the factor analysis. Rudmin noted that in most studies using the four-fold model of acculturation (e.g., Berry's Bidimensional Model), the measures consist of four-scale, double-barreled items rather than ipsative items. For example, a typical item to measure integration strategy may be "I like to cook food from my heritage culture even though I like food from the mainstream culture." Rudmin argues that such an item simultaneously asks about the heritage and mainstream culture, and cited several studies (e.g., Berry, Kim, Power, Young, & Bujaki, 1999; Pham & Harris, 2001) to show that respondents frequently agreed to all four strategies. Conceptually, respondents should be categorized within one of the four strategies. Based on the

four-fold model of acculturation, Rudmin questions whether an individual can be both marginalized and integrated.

While Rudmin is concerned about the psychometric properties of many acculturation measures, others have suggested that measuring acculturation strategies using a bidimensional framework provides a better understanding of acculturation as a dynamic, complex process (e.g., Berry, Phinney, Sam, & Vedder, 2008). Berry and his colleagues (2008) counter Rudmin's arguments by claiming that the external validity of the measures is high and that internal validity is not the only important consideration. Berry argues that the phenomena (acculturation) are complex, and that the measure needs to adequately match the phenomena. In fact, Berry and his colleagues purport that the current measure using double-barreled items is not only appropriate, but "essential" because acculturation is a complex construct (p. 519).

While Rudmin would argue that using double-barreled, ipsative items to measure acculturation is "faulty" (Rudmin, personal communication, March 20, 2010), he does provide some specific suggestions for ways that integrated acculturation could be calculated when using a measure that includes two independent scales for mainstream (M) and heritage (H) culture (e.g., Vancouver Index of Acculturation; Ryder et al., 2000). First, an arithmetic transformation can be calculated. This transformation can include a summation (e.g., summation biculturalism, $H + M$) or subtraction (e.g., subtraction biculturalism, $H - M$). Another option is the "interaction biculturalism," which can be calculated by multiplying the mainstream score by the heritage score ($H \times M$). High scores suggest that the respondent favors both cultures while low scores suggest favoring one or that both cultures are not favored. The problem with this transformation, however, is that the intermediate scores would be difficult to interpret. Yet another way is to standardize the scales, in which centralized transformations are calculated from the two

subscales. For example, the “expressed multiculturalism” can be calculated by centralizing the scale by subtracting the scale midpoint from each response and multiplying together the two centralized scores multiculturalism, $H - M_{ptH} \times M - M_{ptM}$, where M_{ptH} and M_{ptM} are the midpoints of heritage and mainstream cultures, respectively. Finally, an “interaction multiculturalism” transformation is another option because it can be calculated to centralize the score from the mainstream and heritage cultures (e.g., $H - M_H \times M - M_M$) where M_H and M_M are the means of the heritage and mainstream scores, respectively.

Watanabe, Ryder, and Ring (2006) tested the various transformations proposed by Rudmin and were interested in determining whether the integration acculturation predicted social anxiety above and beyond that of the mainstream and heritage culture alone. In their study, Chinese-Canadian undergraduate students completed the VIA, Acculturation Index (AI; Ward & Rana-Deuba, 1999), Berry’s four-fold acculturation measure, and a social anxiety scale. Five transformations were tested (subtraction biculturalism was not included because it does not have a dimension of low and high integration) across the VIA and AI. There were significant zero-order correlations and partial correlations found for summation biculturalism, integration biculturalism, and expressed multiculturalism. Interaction multiculturalism did not show a zero-order correlation. Finally, no measure of integration significantly contributed to social anxiety above and beyond the main effects of mainstream and heritage cultures.

There was no evidence in this study of the unique role of integration acculturation on anxiety because much of the variance was primarily accounted for by the mainstream dimension. However, there were several limitations to the study, including the small sample and the use of only an anxiety scale to measure psychological problems. Despite these limitations, this research

is important because researchers are trying to understand different ways of measuring integration acculturation beyond that of Berry's four-fold acculturation measure.

Psychological Adjustment

The acculturation literature has an abundance of studies examining the association of acculturation with psychological disorders. While examining the concerns and problems related to acculturation are important in providing a better understanding of the impact of intercultural contact on adolescents, researchers may be ignoring the positive effects of intercultural contact. Although some adolescents who undergo the process of acculturation may experience increased acculturative stress, some may develop resiliency and experience positive outcomes such as increased social competence or high academic achievement.

The field of positive psychology has highlighted the importance of understanding psychological *adjustment*, rather than solely focusing on psychological *problems*. Positive psychology argues that in research and clinical practice, it is important to understand how individuals cope with life stress by examining the individual's strengths or competencies as well as the problems and weaknesses (Duckworth, Steen, & Seligman, 2005). Research in clinical and school psychology often focus primarily on an individual's problems and suffering. Assessment and interventions are completed to determine what aspects of the individual's personality, emotions or behaviors need to be modified to help improve the individual's well-being. This perspective can be problematic because it may disregard the individual's strengths and positive characteristics. Therefore, one of the objectives of this study is to understand adolescents' competencies or strengths as well as the psychological problems that may result from their acculturative experience.

Psychological adjustment has been broadly defined in the research to include such concepts as friendship, social competence, academic achievement, and psychological problems (Ward & Kennedy, 1994). For adolescents, psychological adjustment includes the ability to make and maintain friendships, be involved in organizations and teams, perform successfully in school, as well as having symptoms and characteristics of emotional and behavioral problems. Psychological adjustment is therefore defined in this study as both an individual's competencies (academic performance, ability to obtain and maintain friendships, participation in activities, organizations, and teams) and an individual's symptoms of psychological problems. In the following section, an overview of the research relating to acculturation and a variety of psychological adjustment outcomes is provided.

Acculturation and academic outcomes. Schools are important contexts of socialization, where children learn the norms, behaviors, and expectations of the culture through peers and teachers (Delgado-Gaitan, 1988). For ethnic minority and/or immigrant children, school is the context in which their socialization to the mainstream culture is often learned through observing and interacting with their peers. Socialization to mainstream culture is related to the racial/ethnic demographics of the school, and is likely to be important in understanding the adolescent's degree of acculturation (Huang, 1994). If there are few teachers or students of that ethnicity, then the child may feel more isolated or marginalized (Huang, 1994). Furthermore, the observed norms and behaviors may teach the child what it means to be member of an ethnic minority group and to develop their social identity as part of that group (Phinney, 1989).

This development of one's social identity as well as the learned cultural norms may have important implications in school success. Previous research has suggested that acculturation is associated with academic success. In a study with Mexican American ninth graders, highly

integrated and strongly Anglo-oriented adolescents were more likely to be academically successful (Lopez et al., 2002). Students who reported themselves as strongly oriented towards both Mexican and Anglo cultures (i.e., integrated), as well as those students who reported being only Anglo-oriented (i.e., assimilated) were more likely to have higher GPAs. In other words, those adolescents who incorporated Latino cultural practices and values as well as adopted those practices and values of the mainstream culture were able to perform better in school. The authors suggested that perhaps being bicultural made it easier to be successful in school because they were rewarded for adopting American mainstream culture practices.

Similarly, in another study examining high school Mexican American adolescents, acculturation was related to academic aspirations and success (Carranza, You, Chhuon, & Hudley, 2009). Adolescents in high schools in the Los Angeles area ($n = 298$) completed measures of perceived parental educational involvement, academic aspirations, acculturation, and self-esteem. Results showed that acculturation level, particularly assimilated bicultural (i.e., integrated acculturation), positively correlated with adolescents' academic aspirations (e.g., obtaining a GED, graduate from a vocational college) and their GPA, even when controlling for parental involvement and generational status. It may be that high academic achievement is attained when the Mexican American adolescent adheres to the Anglo-American values and practices.

The previous studies showed that integrated acculturation and academic achievement were positively related among Mexican American adolescents. Studies that included other ethnic groups have also shown a clear relationship between acculturation and school success. Analyses of the 1990 Public Use Microdata Samples from the U.S. Census, for example, found that late adolescents/young adults from multiple ethnic groups were more likely to stay in school if they

were identified as bicultural and were exposed to their heritage culture (Feliciano, 2001). Participants between the ages of 18 to 21 who were from various ethnic groups including Vietnamese, Korean, Chinese, Filipino, Japanese, Mexican, Puerto Rican, and Cuban were more likely to be academically successful if they maintained their heritage cultural identity. These results should be cautiously interpreted, however, because biculturalism and exposure to immigrant culture were generally defined by three proxy variables of acculturation: language use, household language use, and the proportion foreign-born in the household. Language use may also overlap with academic ability, since schools are based heavily on oral and written language.

The association between adolescents' cultural orientation and academic achievement was also examined in a study of adolescents from Mexican, Chinese and European backgrounds (Fuligni, Witkow, & Garcia, 2005). Cultural orientation towards their heritage or ethnic backgrounds was found to be positively associated with academic achievement and attitudes. Adolescents who reported that they identified with their ethnic group performed better in school. Moreover, adolescents from Mexican and Chinese backgrounds had more positive attitudes towards school compared to their European American peers, even when controlling for achievement. It is important to note, however, that this study did not directly measure acculturation per se; rather, the study examined adolescents' sense of identity towards their ethnic group. A study that measured acculturation, defined as both behaviors and attitudes, may not reveal similar findings because perhaps the adolescent behaves and identifies with his or her heritage culture as well as the mainstream culture.

Acculturation and social competence. In addition to academic achievement, acculturation has been shown to be related to social competence. Skills such as the ability to

make and maintain friendships, get along with others, and participate in various activities both in and outside of school are important for children and adolescents to develop. These skills are often incorporated in the concept of social competence, defined as the “overall effectiveness and positive social impact of an individual’s behavior” (McNamara, 2002, p. 914).

For adolescents who are undergoing the process of acculturation, developing social competence may be particularly important. For example, having a peer group may be important in providing social support during highly stressful times. Social support provides a buffering effect during times of high stress, and friendships and family support enhance general well-being (Cohen & Wills, 1985). Indeed, research has suggested that social support from peers, family, and teachers plays an important role in school success (Cauce, Felner, & Primavera, 1982; Wentzel, 1999). Moreover, participation in organizations and activities is also important in developing socially appropriate behaviors. Being active in sports, belonging to clubs and having a job are skills that are important to develop during adolescence. Social support and participation in activities are important in developing a sense of belonging (Newman, Lohman, & Newman, 2007).

Social support is an aspect of social competence that is especially relevant for immigrant adolescents, who may experience stress related to attending school as well as during intercultural contact. In the earlier study examining acculturation and academic achievement among Mexican Americans, social support was also found to have a significant relationship with acculturation (Lopez et al., 2002). In this study, social support was conceptualized as the perceived support from peers, friends, parents and teachers. Results suggested that girls received more social support and performed better academically compared to boys. Social support from teachers was also significantly related to academic achievement among Mexican American adolescents. It

may be that teachers are providing vital social support to the adolescents to buffer the effects of stress.

Social support may also play an important role in mediating acculturation and mental health. Oppedal, Roysamb, and Sam (2004) examined how changes in acculturation and social support affected mental health among eighth and ninth grade adolescents in Norway. They defined acculturation as a sense of cultural competence towards the ethnic culture and toward the settlement or host culture. In their view, cultural competence requires knowledge, skills, motivation, and language to adapt to the settlement culture as well as retain the heritage cultural practices. They found that host cultural competence (i.e., mainstream cultural orientation) was associated with positive social support from the host culture (e.g., teachers) and ethnic cultural competence (i.e., heritage cultural orientation) was associated with positive social support from friends and families. Family support was a mediating variable between acculturation and mental health in changes in ethnic cultural competence, while friend support was a mediating variable in host cultural competence. The authors suggest that acculturation is embedded within culturally-specific tasks, and that different types of social support may be relevant in mental health.

Finally, participation in activities in and outside of school has also been shown to be an important factor for immigrant adolescent adjustment. Extracurricular activities outside of school include after-school (e.g., art classes) and out-of-school programs (e.g., Scouts) and have shown to have a positive emotional, behavioral, and academic outcomes (Eccles & Templeton, 2002). Studies have also shown, however, that there are distinct racial and socioeconomic differences in participation in activities. In the Harvard Family Research Project, there were significant differences in ethnic group participation in out-of-school activities where Latino populations were largely underrepresented while Whites were overrepresented (Wimer et al., 2006).

Few research studies have been conducted to examine the differences in immigrant children and adolescents' participation in activities and acculturation. A preliminary study suggested that 8th grade adolescents who were first- and second-generation immigrants were less likely to participate in out-of-school activities compared to native born adolescents (Okamoto, Hartzog, & Herda, 2010). These studies suggest that perhaps immigrant adolescents have more obligations at home, such as chores like baby-sitting that deter participation in other school activities. While mainstream culture may support and encourage White children to participate in extracurricular activities, other cultures may encourage children and adolescents to support the family in the home.

Acculturation and psychological problems. In addition to the correlation between acculturation and social competence, there is also clear evidence to suggest an association between acculturation and psychological problems. Research suggests that when relocating to a new country, the acculturation process can affect mental health, such as feelings of depression, anxiety, and marginalization, and psychosomatic symptoms (Berry, 1997; Kovacev & Shute, 2004; Lopez et al., 2002). For example, one study examined the relationship between cross-cultural transitions and psychological adjustment among sojourners who were temporarily living in a new country (e.g., aid workers, non-governmental organization employees; Ward & Rana-Deuba, 1999). One hundred and four foreign residents in Nepal were given the Acculturation Index, a depression self-rating measure, and a sociocultural adaptation scale. Results suggested that strong co-national identity (integration) was associated with a decrease in psychological distress. Moreover, strong host national identification (assimilation) was linked to fewer social difficulties. Significant correlations were not found between the separated and marginalized groups. These findings suggest that individuals who identify themselves with their heritage

culture as well as with the host culture have better overall psychological adjustment compared to those who identify themselves only with one or the other. The non-significant results for the separated and marginalized groups may be because the sample in this study was primarily foreign residents who were temporarily living in Nepal. Those foreign residents who marginalize themselves from the local population may not feel any disconnection because they expect to live in the country for only short period of time. This experience may be different for individuals who are immigrating to a new country and expect it to be a permanent relocation.

In a study of Yugoslavian refugees in Australia, results suggested that adolescents who endorsed integrated acculturation were less likely to have psychological problems (Kovacev & Shute, 2004). Measures of social support, global self-worth, peer acceptance, and acculturation were administered to 83 adolescents (mean age 15.3) born in Yugoslavia. Results of the study indicated that adolescents who maintained their heritage culture and had contact with the host culture (integrated) showed a significant positive correlation with psychological adjustment, as measured by social support and global self-worth. Adolescents who were marginalized and assimilated were given less support and were more likely to experience psychological problems. The findings suggest that the integration acculturation strategy may be most positively associated with psychological adjustment. It is important to note, however, that the sample in this study was primarily refugees. It may be that refugees who seek asylum in a new country may experience acculturation differently compared to those who are immigrating to a new country for other reasons, such as economic stability.

The previous studies primarily included non-Arab immigrants. Indeed, few studies were found in the literature that looked at the relationship between acculturation and psychological adjustment among Arab American and/or Muslim American individuals. One exploratory study

surveyed 42 adults who had immigrated to the United States from Arab countries, including Egypt, Morocco, Iraq, Saudi Arabia, Lebanon, Palestine, Syria and Libya (Faragallah et al., 1997). Twenty-seven participants were Christian and 12 were Muslim, and most stated they were moderately religious. Respondents were surveyed on satisfaction with life in the United States, American cultural practices, friendship, media, gender role orientation, and demographic information. Results suggested that those respondents who lived in the United States for a longer period of time, immigrated when they were young, and those who reported Christian faith were more likely to be satisfied with their life in the United States. Furthermore, discrimination was negatively associated with life satisfaction, but not associated with acculturation. In general, the findings suggest that Arab immigrants who were more satisfied with life in the United States were more likely to be involved with, and participated in, American culture. This study, however, was completed in the early 1990s, prior to the events of September 11, 2001. With the current political climate and national scrutiny towards Arab Americans, perhaps these results would differ, especially if compared to the overall adjustment and acculturation of Muslim and Christian Arab Americans.

In a study of Muslim college students, Asvat and Malcarne (2008) examined the relationship between acculturation and depressive symptoms in a sample of Muslim university students. Specifically, the study compared acculturation among participants and their families. Muslim university students aged 17 to 34 completed measures of depressive symptoms, personal acculturation, and family acculturation. The participants' acculturation was measured using the Vancouver Index of Acculturation (VIA) which is a 20-item self-report measure based on Berry's bidimensional model of acculturation. Family acculturation was also measured using the VIA with specific instructions to complete the measure with the respondent's family in mind.

Among the Muslim university students, there was a clear relationship between personal acculturation and depressive symptoms. Students who maintained a strong identification with their cultural heritage experienced fewer depressive symptoms. The authors concluded that maintaining their Muslim heritage and having the support of the extended family system that is within the traditional Muslim environment may be a safeguard to experiencing depressive symptoms. These results, however, may also reflect the unique experiences of university students. These students may be experiencing depressive symptoms as a result of transitioning to the demands of independence in a new academic environment in addition to being first- or second-generation immigrants. Also, interestingly, the respondents perceived their family as identifying more with their heritage culture than the mainstream culture as compared to their own acculturation. Students' degree of acculturation may diverge from that of their family.

Depressive symptoms were also examined among Iranian immigrants in the United States (Ghaffarian, 1998). An Iranian version of the Cultural Life Style Inventory, a demographic questionnaire, and scales for anxiety, depression, and psychosocial functioning were administered in either Persian or English. Results suggested that Iranian immigrants who adopted US culture while keeping their Iranian culture were more likely to have better mental health. Furthermore, those immigrants who only maintained their cultural heritage (and did not associate with the mainstream culture) experienced more psychological difficulties. Age and gender also appeared to be a factor in the number of psychological problems experienced by the Iranian immigrants. Younger immigrants experienced fewer difficulties, suggesting that perhaps the younger the individual, the more they are likely to balance their own cultural heritage with participation in the mainstream culture. Contact with individuals of different ethnicities in a variety of different contexts (e.g., work or schools) may influence their desire to have contact

with and participate in the mainstream U.S. culture. There were also significant gender differences, in that women were more culturally resistant and had more psychological difficulties than men. The author concluded that this may be because women have to alter gender roles more significantly in the United States compared to men. The increased changes in gender roles may affect how these women were able to acculturate to the mainstream culture. For example, women's traditional roles in Arab culture are primarily based in the home, where they take care of the children and the house. When immigrating to the United States, they may be required to take on a job to support the family's income. This shift in traditional women's roles may lead to increased stress, and in turn, increased mental health problems among women.

Along with depression and other internalizing symptoms, externalizing symptoms such as aggression and hyperactivity have also been shown to be associated with acculturation. In one study, Moroccan adolescents (ages 11-18) in the Netherlands were given several measures, including the YSR, demographic information, and family immigration status (Stevens, Pels, Vollebergh, & Crijnen, 2004). Results showed that Moroccan boys were more likely to have externalizing problems while Moroccan girls were more likely to have internalizing problems. These results are similar to other research findings that suggest that girls are more likely to have internalizing symptoms such as withdrawal, anxiety, or depression, while boys are more likely to have externalizing symptoms such as aggression and hyperactivity.

In summary, research conducted with a variety of immigrant groups has shown that there is an association between acculturation and psychological problems. Both internalizing and externalizing symptoms have been shown to be associated with how the individual acculturates. Specifically, those individuals who maintain their heritage culture while at the same time participate within the host culture (i.e., integration) have fewer symptoms of depression, anxiety,

aggression, and hyperactivity. Furthermore, the research suggests that younger individuals who are male and who have lived longer in the host culture are more likely to have more positive psychological adjustment.

Generational Discrepancy in Acculturation

While there is clear evidence of a relationship between acculturation and the development of psychological problems, previous studies do not explain the specific mechanisms that may affect this relationship. Children and adolescents are embedded within the family context (Bronfenbrenner, 1992); it is important, therefore, to consider parent and family influences on acculturation in the development of psychological problems in children and adolescents. Parents' level of acculturation, and the extent to which it differs from the child's level of acculturation, may be a factor in explaining why some immigrant children develop psychological problems.

Generational discrepancy in acculturation (or generational dissonance) refers to differences between a parent and child on a set of cultural identity factors, such as acculturation that leads to conflict (Portes & Rumbaut, 1996). When there are differences in level of acculturation, generational discrepancy may result among family members. Research suggests that this generational discrepancy, in turn, negatively affects children (Weaver & Kim, 2008).

Generational discrepancy in acculturation may occur for several reasons. Parents who immigrate to a new country are socialized from birth in a particular culture, and are therefore more willing to hold on to the cultural norms and values from their heritage culture (Phinney, Ong, & Madden, 2000). They may also choose to teach their children cultural norms from their heritage culture and expect that those cultural norms are maintained. Adolescents, on the other hand, are taught their parent's cultural norms while being socialized in a different culture. Conflict may occur when the adolescents' attitudes and behaviors differ from their parents.

Another reason why generational discrepancies in acculturation may occur is because parents and adolescents may differ in how quickly the host language (e.g., English) may be learned and used across multiple contexts (e.g., school, grocery store, work). Adolescents may learn and use English with their peers, but are expected to learn and use their parents' native language at home. Adolescents learn new languages more quickly compared to their immigrant parents and may feel frustration when their parents are unable to communicate outside of their ethnic community (Portes & Schauffler, 1994).

Generational discrepancy in acculturation may also be due to differences in cultural values as it relates to family obligation. Some collectivist cultures (e.g., China, Middle East) promote interdependence and concern for the social group and family, while individualistic cultures promote personal autonomy and self-reliance (Hofstede, 1980). When immigrant families from collectivist cultures immigrate to the United States (an individualistic culture), generational discrepancy may arise when there are differences in respecting family obligations over individual autonomy. The more difference there was between parents and children's expectations of family obligation the greater the intergenerational conflict (Phinney et al., 2000). Although there were differences between ethnic groups, the research suggests that intergenerational conflict increased when families resided longer in the U.S. and when the adolescent was U.S. born.

Differences in language, cultural values, level of acculturation, and family obligation are all factors in generational discrepancy. Research also suggests that generational discrepancy plays an important role in the relationship between acculturation and psychological adjustment in adolescents. Hwang and Wood (2009) examined the mediational effects of generational discrepancy and self-reported symptomatology among Asian American and Latino college

students. Results suggested that family conflict mediated the relationship between psychological distress (i.e., depression) and generational discrepancy in this sample. The authors concluded that differences between parents' and children's views of appropriate cultural practices may influence the parent-child relationship. They suggested that differences in language use may also lead to misunderstandings and frustration from lack of responsiveness.

Another study using a younger sample of Chinese immigrants found similar results. Using a bidimensional framework of acculturation, Kim, Chen, Li, Huang and Moon (2009) were interested in determining whether the degree of discrepancy between the behavioral acculturation of parent and child influenced depressive symptoms as measured by the Center for Epidemiologic Studies Depression Scale. Three hundred eighty-eight father-adolescent dyads and 399 mother-adolescent dyads completed the VIA. Using structural equation modeling, results suggested that when there was a discrepancy between parents and children on Chinese orientation, adolescents reported fewer supportive parenting practices and fewer monitoring activities by parents. There was also a relationship between the father-adolescent discrepancy on the American cultural orientation and adolescent depressive symptoms because of lower levels of warmth and less monitoring. Thus, results suggest that paternal parenting mediates the acculturation discrepancy of the father and adolescent dyad and adolescent depressive symptoms. This study suggests that not only does the parent's level of acculturation operate as a mediator in the relationship between the child's level of acculturation and depression, but that parenting practices may also play a role in whether depressive symptoms arise.

Generational discrepancy in acculturation is an important way to explain the relationship of acculturation and psychological problems among immigrant adolescents. Family is the most proximal context in which a child develops and socializes. When a child reaches adolescence,

however, the child becomes exposed to other cultural contexts such as peers and schools which may not align with the family's expectations. Conflict can occur when parent-child differences in level of acculturation, language, and cultural norms are evident, which in turn, can generate stress and psychological problems.

The Arab American Experience

Americans of Arab descent are an ethnically and religiously diverse group. There have been discrepancies in reports of the number of Arab Americans in the United States, with some estimating over three million (Arab American Institute, 2009). These discrepancies in numbers are due to a large portion of Americans of Arab descent who do not identify themselves as "Arab Americans." In this study, the term "Arab American" encompassed Americans who traced their roots to numerous countries in the Middle East and North Africa, including Lebanon, Iraq, Morocco, Palestine, Egypt, Syria, Yemen, Algeria, Bahrain, Comoros Islands, Djibouti, Kuwait, Libya, Oman, Qatar, Saudi Arabia, Tunisia, and the United Arab Emirates (de la Cruz & Brittingham, 2005). For the purposes of this study, "Arab Americans" also included smaller ethnic groups, such as Chaldean Americans, who do not necessarily identify themselves as ethnically Arab.

Most Arab Americans reside in California, New York and Michigan, and predominantly in metropolitan areas. They are highly educated, with nearly 85% having at least a high school diploma. There is also diversity of religious beliefs among Arab Americans. According to the Arab American Institute (2002), the majority of Arab Americans are Roman/Eastern Catholic (35%), followed by Muslim (24%), Eastern Orthodox (18%), Protestant (10%), or other religions or no affiliations (13%).

Although Arab Americans are a small ethnic community compared to other ethnic minority groups within the United States, they have developed a distinct identity. As Haddad (2004) poignantly describes:

Arab-American identity has been honed and reshaped by the immigrants themselves in response to American attitudes and policies towards them as well as their original homeland. The identity is also fashioned by the immigrant's local American experiences, the place in which they settle, their relations with older generations of immigrants, the reception and treatment they endure in their new environment, the diversity of the community with which they associate, their involvement in organized religion, and attendance at ethnic or integrated mosques (p. 16).

This Arab American identity that emerges is one that is tied to their local community and the way that other Americans have responded to them.

People of Arab descent have been in the United States for over a century and have experienced unique challenges as well as challenges common to most immigrant populations. The first wave of immigrants from Arab countries arrived in the United States when Anglo-Saxon conformity was being encouraged or even enforced (Huseby-Darvas, 1994). Proponents of Anglo-Saxon conformity believed that immigrants who arrived in the U.S. should change their traditional values and beliefs towards a more Protestant culture. This perception advanced the idea that immigrants would assimilate to a Protestant culture and lose their "foreign" traditions. Racism and anti-immigrant sentiment were prevalent during the late 1800s, and Arab immigrants frequently faced discrimination (Haddad, 2004).

After the end of World War II, a second wave of immigrants arrived in the United States. The U.S. government had been interested in the oil fields in the Arab world, and encouraged

young Arabs to attend American universities in the hopes that when they returned to their home country, they would support American interests (Haddad, 2004). The Asia Exclusion Act of 1965 was revoked, which also led to a dramatic increase in the number of highly educated, professional Muslim immigrants (Haddad). Indeed, currently 85% of Arab Americans have at least a high school diploma and 40% have a bachelor's degree or higher (Arab American Institute, 2009).

Throughout this immigration history, Americans of Arab descent have struggled with developing their own identity within the larger social and political structures of the United States. Issues of race, prejudice, and discrimination have played a critical role in the development and understanding of an "Arab American" identity. Specifically, issues of race have been prominent throughout immigration history. In fact, the discrepancies in the reported number of Arab Americans in the United States is partly due to the historical categorization of Arab Americans as either "Asian/Pacific Islander" or "White" by the U.S. government (Suleiman, 1999). Additionally, early immigrants to the United States were classified as coming from "Turkey in Asia" by the Immigration and Naturalization Services (Haddad, 2004). These categorical labels to identify Arab Americans ignored the distinct differences in ethnicity and culture from those of other groups.

Currently, Americans who identify themselves as Arab and/or Muslim are challenged by a "hyphenated identity" because of the social and political tensions resulting from the events of September 11th (Sirin & Fine, 2007). In a recent study, Muslim Americans between the ages of 12 and 18 (mean age = 15.27) from varied ethnic backgrounds were interviewed and surveyed about the challenges of being Muslim American, their gendered identities, and difficulties in the home and their communities. Many of the young Muslim Americans experienced daily

discrimination both in school and in their communities. There were also significant differences between the experiences of boys and girls. One of the findings showed that discrimination was significantly related to symptoms of anxiety among girls, but not boys. In addition, it appeared that the more the adolescents were acculturated to their home culture and the U.S. culture, the less they experienced acts of discrimination. Understanding the differences in their Muslim culture as compared to the American mainstream culture was critical in developing their “hyphenated identity.” Acts of discrimination pointed out key differences in their behavior, style of dress, and physical attributes that adversely affected their desire to participate in American culture.

In addition to experiences related to their hyphenated identity, legal restrictions and the consequent victimization of Arab Americans have also influenced their identity as an ethnic group. The events of September 11th led to several government legislations, such as the U.S.A. Patriot Act of 2001, which nullified any protections for Arab or Muslim Americans. Additionally, during the George W. Bush administration, a number of policies appeared to be anti-Muslim, such as increased profiling at airports for potential terrorists. There were also concerns that the Patriot Act allowed for incarceration of Arabs or Muslims without evidence (Cainkar, 2004; Haddad, 2004). At least 10,000 Arabs and Muslims have experienced specific actions as a result of the Patriot Act, including property seizures, FBI home and work visits, and mandatory registration (Cainkar, 2004).

Overall, it is clear that the Arab American experience is rich and varied. The term “Arab American” incorporates a multitude of individuals with different identities, nationalities, religions, and traditions. It is recognized, therefore, that although a general label of “Arab American” is used in this study, this group includes many within-group variations. Cultural

psychology has pushed researchers to look beyond frameworks that dichotomize cultural groups, such as distinguishing individualistic versus collectivistic cultures (Triandis, 1995), and to instead examine culture as dynamic and co-constructed, in which the individual is an important agent in creating culture (Gjerde, 2004; Wainryb, 2004). Understanding culture beyond group differences and acknowledging that culture is not simply shared orientations among individuals is important and necessary. Group-level differences, however, do provide interesting and critical information that will help inform psychologists of ways to provide services to Arab American adolescents. Although within-group variations exist and these variations should be carefully considered when examining research results, this study specifically focused on group-level differences in this population.

Adolescent Development

Arab American adolescents, like adolescents of other immigrant and/or ethnic minority groups, are developing within multiple contexts, including the family context and the larger societal context (Szapocznik & Kurtines, 1993). Arab American adolescents are not only experiencing the typical course of adolescent development, but they are doing so in the context of being a member of a particular ethnic group and being an immigrant in the United States. In the following section, a discussion of adolescent identity development and ethnic identity development will be provided. Although most of the current theories have been tested using Latino, African American, and Asian American adolescents, these theories will be discussed in the context of adolescents of Arab descent. It is hoped that understanding the theories of ethnic identity development will help highlight some of the challenges that Arab American adolescents may experience.

Adolescent identity development. Adolescence is a critical time for the development of one's identity. During adolescence, as children develop a sense of autonomy and competence in the early stages of psychosocial development, they begin to develop a sense of their identity (Erikson, 1968). This stage of development is essential for obtaining a sense of self and developing ideas of one's role in society.

Marcia (1980) suggested that adolescent identity, or what he calls self-definition, is formed through an assessment of alternatives (exploration) and investment in a choice (commitment). Based on these criteria, there are four identity statuses: diffusion (no commitment or exploration), foreclosure (commitment but no exploration), moratorium (exploration but no commitment), and identity achievement (exploration and commitment). Identity achievement is the ultimate goal during adolescence; the individual must assess all alternatives in his or her life and invest in a specific choice based on that assessment.

Adolescence is also a period of continued social and cognitive development. During pre-adolescence, children's social relationships become more firmly established, leading to higher self-esteem and peer-bonding (Parker & Asher, 1987). As these children mature in adolescence, they become more self-conscious; they become aware of their physical appearance and personal uniqueness (Elkind, 1978). Adolescents tend to be conscious of their behavior and dress, and frequently compare themselves to their peers. This change in increased self-consciousness occurs during a time when the social self is more developed (Hart, Fegley, Chan, Mulvey, & Fischer, 1993) and because they begin to interact and socialize with people outside of their family (Burndt, 1982; Larson & Richards, 1991; Levitt, Guacci-Franco, & Levitt, 1993).

Adolescence has also been characterized as a period of high turmoil, in which there is an increase in conflict between the parent and adolescent (Hall, 1904). Parental conflict is a natural

developmental process as children develop a sense of autonomy (Steinberg & Silk, 2002).

During this period, parents' expectations of appropriate behavior may differ from that of the adolescents, or there are conflicts related to parental control. In a study of mother-child dyads, adolescents reported that conflict occurred because of several goals, including obtaining their immediate desires (e.g., an object), achieving emotional support, autonomy, and dominance, as well as to avoid conflict (Lundell, Grusec, McShane, & Davidov, 2008). Older adolescents were more likely to report more emotional support and dominance goals than younger adolescents. It may be that as adolescents mature, they are seeking, but not obtaining, emotional support from their parents. Also, they may seek opportunities to test their parents' power and authority, and seek dominance. Furthermore, another study suggested that conflict intensity increases from early adolescence to late adolescence (Laursen, Coy, & Collins, 1998). As adolescents develop their sense of identity and desire increased autonomy, there may be additional tension and disagreements between the parent and the adolescent.

Although conflict is a marker of adolescent development, there are ethnic or cultural differences. Adolescent interpretations of parental control have been shown to vary by ethnicity. Asian immigrants reported higher levels of parental control compared to European American adolescents, and also reported comparatively lower feelings of anger towards that control (Chao & Aque, 2009). In another study, African American, Hispanic, and White adolescents were compared on their affective meaning of parental control (Mason, Walker-Barnes, Tu, Simons, & Martinez-Arrue, 2004). When comparing similar parenting behaviors described as "coercive" (i.e., guilt-based parenting), African American and White adolescents associated this parenting with being controlled or manipulated. African American adolescents, however, also associated this parenting with feelings of being loved and cared for, more so than White or Hispanic

adolescents. These results suggest that understanding parent-child conflict may not simply mean observing a universal set of parent behaviors and determining whether those behaviors led to conflict; rather, the adolescent's interpretation of those behaviors as well as the cultural context in which that adolescent is socialized may also be important.

In addition to the development of identity and autonomy through parent conflict, adolescents also develop a sense of identity through their peer social groups. Social identity theory and intergroup relation theory (e.g., Tajfel, 1982) suggest that identity formation is a result of having an "other" group to which to compare one's identity. These social comparisons are important during this period because adolescents compare themselves to members of their own group as well as to members of other racial or ethnic groups. In-group comparisons have been suggested to lead to a positive self-image and positive self-evaluations, while out-group comparisons may lead to psychological conflict (Tajfel). Adolescents from an ethnic minority group, such as Arab Americans, may compare themselves to a majority group (i.e., European-Americans) and can either accept the majority's negative views about their own group or reject those views and seek their own identity.

The development of social identity during adolescence requires a great deal of cognitive flexibility. As a child matures and develops concrete operational thought, they are able to begin to classify objects and people (Piaget, 1969). Racial or ethnic attitudes develop after the emergence of formal operations, when the adolescent begins to think more abstractly and reason logically. Not only are adolescents able to classify themselves as part of a racial group, but they can also take multiple perspectives. When unjust treatment or prejudice occurs, they are more able to take other people's perspectives and make judgments about those actions (Aboud &

Skerry, 1984). Adolescents, therefore, acquire the cognitive capacity to understand their identity in relation to peers of similar and different ethnic groups.

Ethnic identity development. Adolescence is characterized by the development of the self and identity, yet, among ethnic minority groups such as Arab Americans, the sense of self may be developed in a different cultural context. Although the development of identity may be a feature of adolescent development, construals of the self, of others, and the relationship between self and others may differ based on one's culture (Markus & Kitayama, 1991). It could be argued that Arab American adolescents' self construals may develop in a different cultural context than those of White, mainstream adolescents.

Markus and Kitayama (1991) have proposed that self-construal, or the development of the self, is contextualized. Children are socialized within independent or interdependent cultural contexts, leading to an independent or interdependent self-construal. They define independent construals of the self as "organized and made meaningful primarily by reference to one's own internal repertoire of thoughts, feelings, and action, rather than by reference to the thoughts, feelings, and actions of others" (p. 226). Independent self-construals are characterized as developing with a prototypically independent culture such as the United States. Interdependent construals of the self, on the other hand, are "seeing oneself as part of an encompassing social relationship and recognizing that one's behavior is determined, contingent on, and, to a large extent organized by what the actor perceives to be the thoughts, feelings, and actions of others in the relationship" (p. 227). Understanding oneself as either in reference to one's own or in relation to others is determined by the context in which one is socialized.

Understanding Arab American identity or self-construal, therefore, may be complicated by how one defines the cultural context in which the Arab American adolescent is socialized.

Arab cultures have typically been characterized as being collectivist, or interdependent cultures, in which the self is defined in relation to others (Gregg, 2005). If an Arab American is a recent immigrant to the United States, he or she is likely to have been socialized within a primarily interdependent culture. He or she may, consequently, have an interdependent view of the self. On the other hand, if an Arab American is a third-generation immigrant and has primarily been socialized in the United States, he or she may have an independent self-construal.

Adolescent development, therefore, may be more complicated when the adolescent is a member of a particular ethnic group. Understanding how an adolescent develops a sense of self may mean understanding the cultural values and context in which he or she develops. The self and the relationship of the self to others play a significant role in how an individual views him or herself.

Along with theories of self-construal, theories of ethnic identity development suggest that for ethnic minority groups, such as Arab Americans, there are specific stages in which they acquire a sense of who they are, what values they hold on to, and the extent to which they interact with others. Phinney (1989) proposed four stages of ethnic identity development based on Marcia's (1980) model of identity development, and assume that there is a period of exploration of the meaning of one's identity.

Phinney's four stages of ethnic identity development begin with identity diffusion. This stage is characterized by a lack of exploration of one's ethnic identity. During this stage, the adolescent doesn't put in effort to examine his or her ethnic identity, and there is also a lack of understanding about the issues related to ethnicity. The second stage of ethnic identity development is identity foreclosure, which is characterized as when the adolescent takes on the values that have been taught to him or her without question or exploration. Phinney purports that

during this stage, adolescents may be from families with strong ethnic pride and may not have found it necessary to explore questions of ethnicity. On the other hand, the adolescent may have simply not considered or thought about ethnicity as important in his life. In this stage, ethnic identity is not fully considered; rather, the values and ideas about the ethnic group are maintained without question.

Exploration, however, begins during the stage of moratorium, in which the adolescent explores his or her ethnic identity and the personal implications of his or her ethnicity. During this stage, the adolescent seeks opportunities to learn about the ethnic group through speaking with others or reading books. Instead of relying on the family's beliefs and values of their ethnic heritage, the adolescent inquires about his or her ethnic heritage.

The final stage is identity achievement, which "corresponds to acceptance and internalization of one's ethnicity" (Phinney, 1989, p. 38). Once the adolescent has explored his or her ethnicity and heritage, he or she accepts and integrates that aspect into his or her identity. During this stage, the adolescent has recognized him or herself as part of an ethnic minority group.

Phinney's model of ethnic identity development has been widely cited in the literature as a way to explain how individuals identify themselves as a member of an ethnic group. Studies have shown that while the stages of ethnic identity development may be similar among ethnic groups, immigrants experience the effects of ethnic identity differently. Nesdale, Rooney, and Smith (1997) found that among migrant populations, identification of their ethnic group did not contribute greatly to their identity. The association between ethnic identification and self-esteem was very low. It may be that migrant experiences are different from other ethnic minority groups because most migrants are relocating to a new country for better life opportunities. As a result, it

is important for them to adjust to the new country, which may mean adopting the culture of the new country. Maintaining their ethnic identity may, in fact, lead to less acceptance from the majority and lead to increased prejudice or discrimination.

Britto (2008) also argues that models of ethnic identity development may be conceptually inadequate in explaining the ethnic identity formation among Arabs in the United States. Many of the first models of recent immigrants such as African Americans or Latinos focused on skin color as the primary way of characterizing ethnic identification. Individuals of Arab descent, however, have very different immigration histories compared to these groups, and have historically been characterized as “White” in the U.S. Census. Indeed, there are various racial groups within Arab populations. Northern African countries such as Egypt or Morocco, for example include darker skinned people, while Persian Gulf nations such as Lebanon include more fair skinned people. Furthermore Britto argued that other models of explaining ethnic identity have focused primarily on national identity with hyphenizations of immigrant groups (e.g., Mexican American). Individuals of Arab descent, however, are from a variety of different countries with different cultural traditions, and especially among Arab Muslims, it ignores the strong link between ethnicity and religion.

Arab American adolescent development. Differences in understanding adolescent development across cultures are also noted when understanding adolescence in general. Developmental theories suggest a major milestone in adolescent development: personal autonomy and self-regulation. These theories, however, could be conceptualized as predominantly “Westernized.” Adolescence itself is perceived as a period between childhood and adulthood, and among non-Westernized countries, this period may or may not exist. In the Arab world, adolescence has been conceptualized as a transition period, though it may be for a

significantly shorter time as compared to adolescence in Western cultures, such as Australia or the United States (Gregg, 2005).

There are some key themes in adolescent development that are unique to Arab and Northern African cultures, including themes of sexuality, formation of a social self or personae, and religion (Gregg, 2005). During this period, the adolescent becomes a larger part of adult society, and is faced with issues of sexuality and marriage. In traditional settings, girls are expected to marry after the onset of puberty, and pre-marital sex is considered taboo. Initiation rites, such as wearing the *burqa* or *hijab*, are considered personal accomplishments. Boys, however, are not expected to marry immediately, but there are expectations that the boys be more involved in the male world (Gregg). They are expected to preserve the family honor, by supporting the livestock or defending the family home. These expectations may be considered a burden because they must still be deferential to elders' authorities yet seek individual accomplishments.

Interpersonal relationships also become important for Middle Eastern and North African adolescents, especially in regards to romance (Gregg, 2005). In more modernized societies, teenagers develop romances although they are often hidden from adult view. Sometimes these romances lead to marriages, but this is dependent on the parent's needs. Traditionally, marriages are arranged by the parents, and they may want their son or daughter to marry a particular person because of family or business associations. When seeking romantic relationships, there is a "double standard" (Gregg). While boys are expected to seek girls, girls are stigmatized if they are suspected of engaging in any kind of sexual activity. These expectations influence adolescent behavior among adolescents of Arab descent.

While there may be cultural differences related to sexuality and religion in adolescent development in Arab societies, the developmental milestones during this period are similar. Arab adolescents attempt to develop a social and personal identity, and must come to terms with this struggle as they reach adulthood. Adolescent development within Middle Eastern and Northern African cultures is contextually different from that experienced by Arab American adolescents. However, it is this culture that Arab Americans bring to the United States, and the culture that Arab American adolescents confront as they acculturate.

In sum, the current literature supports the ethnic identity development model among certain ethnic minorities in the United States, although it is unclear whether Arab American adolescents develop an identity with their ethnic group in a similar way. Because ethnic minority groups are often categorized using skin color in the U.S. Census, Arab Americans may be ignored or underrepresented. If Arab Americans identify themselves differently (e.g., using ethnic heritage rather than race as group identification), it is unclear whether the current ethnic identity development literature is relevant. Additional research is needed to understand how Arab Americans develop a unique ethnic identity.

Social Desirability and Response Bias

Collecting data on sensitive topics, such as discrimination, ethnicity, or mental health may pose challenges because there may be concerns that the results will not accurately represent the true thoughts, feelings, or beliefs of the respondents. When completing items on a subjective test or measure, participants may feel a need to hide or even misrepresent their true thoughts or feelings. This response bias, or self-presentation demand, occurs for a variety of reasons, including believing that there is a “correct” response, enhancing one’s responses to “look good,” fear of being stereotyped, or discomfort about answering questions that may be of

sensitive nature (e.g., drug abuse, sexual activity). Moreover, participants may respond in specific ways as a result of how they may perceive others view them. In other words, if they perceive that others view them in stereotypic ways, they may respond in ways that confirm those stereotypes (Sinclair, Huntsinger, Skorinki, & Hardin, 2005).

When asking about mental health or experiences with psychological symptoms, for example, some respondents may misrepresent their true experiences for fear that they will be stigmatized. This is particularly true among some cultural groups, such as Arab Americans, where there is stigma against those who have psychological disorders. Arab Americans tend to hold negative attitudes towards mental health and tend to not seek mental health services for their problems (Al-Krenawi, 2005). Respondents may therefore be less likely to truthfully answer questions related to mental health.

In addition to a mental health stigma, there is also the possibility that Arab American participants may respond in socially desirable ways because they are conscious of being members of an ethnic group which has had a great deal of negative attention in the U.S. media. Acts of violence and instances of discrimination against this community may subtly lead participants to answer items in socially desirable ways. Previous studies examining response biases in questionnaires on discrimination against women and African Americans suggest that whether the respondent is part of the in-group affects the respondent's answers (Gomez & Trierweiler, 2001). No known studies have explicitly examined social desirability bias among Arab American samples.

The concern for response bias and participants answering items on personality and clinical measures in socially desirable ways has led to researchers seeking ways to appropriately assess social desirability. In the 1940s, Meehl and Hathaway (1946) sought to develop a scale

that would measure response bias by using items from the Minnesota Multiphasic Personality Inventory. Later, Crowne and Marlowe (1960) developed the Marlowe-Crown Social Desirability Scale (MC Scale) where response bias could be detected for those respondents who endorsed items that were favorable of themselves. This study includes a short form of the MC scale to assess the degree of response bias in this sample of Arab American adolescents.

Current Study Research Questions and Hypotheses

This literature review has described how acculturation and acculturative stress are associated with psychological adjustment among immigrant youth; there is a lack of research, however, that examines this relationship among adolescents of Arab descent. Much of the research has focused primarily on Latino and Asian Americans (e.g., Gonzales, Deardoff, Formoso, Barr, & Barrera, 2006; Le & Stockdale, 2008) and the research that has been conducted with the Arab population has primarily used adult Arab Americans (e.g., Amer & Hovey, 2007; Faragallah et al., 1997). Arab American adolescents experience not only typical challenges of adolescent development, but also experience the challenge of developing an ethnic identity within a social-political context that has recently placed scrutiny on their ethnic community. Finally, as they develop a sense of self, they may experience conflict with parents who may be at different levels of acculturation. Generational differences in acculturation levels have been shown to play a significant role in child psychological outcomes (Kim et al., 2009; Phinney et al., 2000). Parent acculturation may also be a factor in the Arab American adolescent psychological adjustment.

This dissertation study addressed a gap in the literature on research on Arab American adolescents, critically examined the relationship between acculturation and psychological

adjustment, and determined whether a relationship exists between parent acculturation and child psychological adjustment.

Definition of acculturation and acculturative stress. This study defined acculturation as an individual's experience during the process of intercultural contact that encompasses his or her sense of self and results in changes in attitudes, behaviors, and cultural identity (Berry, 1997; Ryder et al., 2000). More specifically, a bidimensional definition of acculturation was used to describe an individual's orientation towards the heritage culture and/or the mainstream culture as measured on the Vancouver Index of Acculturation (VIA; Ryder et al., 2000). Acculturative stress was defined in this study using Berry's definition: "a response by individuals to life events (that are rooted in intercultural contact) when they exceed the capacity of individuals to deal with them" (Berry et al., 2002, p. 362).

Definition of psychological adjustment. In this study, psychological adjustment was conceptualized as both social competence and psychological problems. Social competence was defined as obtaining and maintaining friendships, participation in organizations, teams, and other activities, and academic achievement.

Research Questions. Seven research questions were addressed in this study. First, differences in acculturation among Arab American adolescents were explored in terms of school level, gender, religiosity, length of time in the United States, and parent acculturation. Then, several questions concerned how acculturation and acculturative stress might predict psychological adjustment. Finally, differences between parent and adolescent levels of acculturation were examined.

Research question 1. *Does acculturation (heritage cultural orientation, mainstream cultural orientation, and integrated acculturation) vary by school level, gender, religiosity, and by length of time in the U.S.?*

Adolescent immigrants and children of recent immigrants not only experience the natural process of identity development but also experience the process of acculturation. Acculturation encompasses an individual's sense of self and involves changes in attitudes, behaviors, cultural values and cultural identity (Ryder et al., 2000). These changes in attitudes and behaviors may differ across adolescence, based on the level of ethnic identity development (Phinney, 1989). As a member of an ethnic group, the adolescent's development of the self and the relationship of the self to others may play a critical role in whether the adolescent maintains his or her heritage culture and/or has contact with and participation with the mainstream culture. Indeed, research has found that younger children differ in level of acculturation compared to older children (Berry, 1997).

In this study, three groups were examined corresponding generally to school levels: middle school (ages 11-13 years), high school (ages 14-17 years), and post-high school (ages 18-21 years). It was hypothesized that Arab American adolescents at these different stages of development will have different cultural orientations towards heritage and mainstream culture. These differences may occur because one's identity changes across time and under different social and environmental conditions (French, Seidman, Allen, & Aber, 2006). For example, youth in early adolescence may seek individuals from similar ethnic groups and seek out opportunities to spend time with peers of similar ethnicity both at school and at home. Youth in middle or late adolescence, on the other hand, may be exposed to a broader spectrum of people

as a result of achieving greater independence (e.g., working part-time after-school, spending time in public places such as the mall or skate parks).

It was hypothesized that older adolescents/young adults would have a higher mainstream cultural orientation and a higher heritage cultural orientation as compared to younger adolescents. In addition, older adolescents were predicted to have a higher integrated acculturation compared to younger adolescents. Older adolescents and young adults may have more opportunities for interactions with individuals from different ethnic groups as well as opportunities to maintain their heritage culture. Young adolescents, on the other hand, are less likely developmentally, to address issues related to their ethnic identity, and therefore it may be less important to hold on to his or her heritage (Arab) culture. Adolescents in the mid to late teen years are likely to have begun to develop a sense of their ethnic identity (Phinney, 1989). Therefore, it was hypothesized that adolescents in the mid to late teen years would have a relatively higher heritage cultural orientation, lower mainstream cultural orientation, and lower integrated acculturation.

In addition to understanding how acculturation varies by school level, this study also examined how acculturation varies by gender. Previous studies with participants from Arab cultures have suggested that there may be gender differences in levels of acculturation (e.g., Ghaffarian, 1998). Females may have more difficulty adapting to a new culture because of differences in gender roles and expectations. Girls, as compared to boys, may have to alter more of their behaviors (e.g., dress) to participate in the mainstream culture. Consequently, it is hypothesized that while girls would be significantly higher on the heritage culture orientation, boys would more likely be higher on the mainstream culture orientation. Furthermore, boys would be significantly higher on the integrated acculturation.

Previous research has suggested that length of time living in the host culture is closely associated with acculturation (Zlobina, Basabe, Paez, & Furnham, 2006). Consequently, it was hypothesized that adolescents who have lived longer in the United States would be more likely to report higher mainstream cultural orientation compared to those who lived in the U.S. for a shorter amount of time. Conversely, it was hypothesized that adolescents who have lived in the U.S. for a shorter amount of time would report higher heritage cultural orientation.

Finally, acculturation would also likely vary by religiosity. It has been suggested that because of differences in religious beliefs, values, and behavior, that the process of acculturation would be experienced differently based on the degree of religiosity. Religion is an integral part of the cultural practices and traditions among Arab Americans. Indeed, religious identity is often tied with Arab American's ethnic identity (Ajrouch, K. J., 2000). Therefore, it is hypothesized that Arab American adolescents who adhere to their organization's religious practices, endorse higher religiousness and spirituality, and undergo daily spiritual experiences would be more likely report higher heritage cultural orientation. It is unclear based on the current literature whether adolescents who report lower religiosity will also report higher mainstream cultural orientation or higher integrated acculturation.

Research question 2. *How do age, gender, religiosity, and length of time in the United States explain acculturation (heritage cultural orientation, mainstream cultural orientation, and integrated acculturation)?*

School level, gender, religiosity, and length of time in the United States may be factors in whether an adolescent identifies more strongly towards his or her heritage culture or the mainstream culture. An adolescent's school level and stage of identity development may predict whether the adolescent maintains his or her heritage culture or whether he or she is willing to

participate in the mainstream culture. On the other hand, it may be that gender plays a more important role, in that differences in gender roles and expectations between Arab American girls and boys explain whether an adolescent identifies more strongly towards his or her heritage culture versus the mainstream culture.

Religiosity may also be an important factor in whether the adolescent identifies more strongly to the mainstream or heritage culture. Attending religious organizations such as churches or mosques, adhering to religious traditions, and following religious values of their family may be important in determining whether an adolescent maintains his or her heritage culture or participates in the mainstream culture. Muslim religious traditions may be important for the adolescent's family, and they may therefore desire to hold on to those traditions as a marker of being a part of an ethnic community.

Finally, the number of years living in the United States may also predict acculturation. Length of residence has been found to be one of the strongest predictors of adjustment among immigrants (Zlobina et al., 2006). Immigrants who have lived longer in a mainstream culture are more likely to desire contact with and participate in the new culture. Similarly, among adolescent immigrants, the length of residence in the mainstream culture is related to acculturation (Berry et al., 2006). In the current study, it was hypothesized that the longer adolescents have resided in the United States, the more likely they will have higher integrated acculturation. Over time, Arab American adolescents may be able to cope with the challenges of transitioning to a new cultural context and seek opportunities to participate in the settlement culture. Moreover, the longer an adolescent lives in the United States (controlling for age), the more the adolescent will endorse integrated acculturation.

Research question 3. *How do age, gender, religiosity, and length of time in the United States explain acculturative stress?*

Arab American adolescents may experience a variety of different stressors related to the process of acculturation, including the ability to speak English, loss of family support, or perceived discrimination. The adolescent's age, gender, religiosity and length of time in the United States may be important factors in how the adolescent copes with such stressors.

It was hypothesized that adolescents who recently arrived in the United States would have higher acculturative stress compared to adolescents who have been living in the U.S. longer. More specifically, adolescents would report higher general social stress, higher process-oriented stress, and higher perceived discrimination. Higher acculturative stress may occur because these adolescents have fewer close friends and have difficulty speaking English, which may make it more difficult to cope with acculturative stress. Moreover, adolescents who have recently arrived in the U.S. may perceive that others have negative views of them. Thus, these adolescents would have higher general social stress, higher process-oriented stress, and higher perceived discrimination scores compared to middle and older adolescents who have lived longer in the United States. In contrast, older adolescents who have been in the United States for a longer period of time may be able to cope with acculturative stress. These adolescents would be expected to have lower general social stress, lower process-oriented stress, and lower perceived discrimination scores. In general, it is predicted that the length of time in the United States would account for the most variance in acculturative stress.

Research question 4. *How are acculturation and acculturative stress related to psychological adjustment among Arab American adolescents?*

The acculturation literature suggests that psychological adjustment is associated with the degree to which an individual wishes to maintain his or her cultural heritage and the degree to which the individuals wish to be involved and participate in the host culture (Kovacev & Shute, 2004; Lopez et al., 2002). Individuals who are bicultural, or who integrate both the heritage culture and mainstream culture, are more likely to have positive psychological adjustment among various immigrant groups (Berry, 1997). This may be similar for Arab Americans. It was hypothesized that Arab American adolescents who have oriented towards both heritage and mainstream culture (i.e., integrated) will have fewer psychological problems compared to adolescents who just have a strong heritage culture or strong mainstream culture orientation. Specifically, adolescents who reported higher integrated acculturation would have fewer internalizing and externalizing symptoms, and would report higher competence scores.

In regards to acculturative stress, it was predicted that adolescents who reported higher total acculturative stress would also report more internalizing and externalizing symptoms, and lower competence scores. The more stress they experience related to general concerns, worries, and perceived discrimination, the more likely they will also report more psychological problems. On the other hand, adolescents who reported lower total acculturative stress would also report higher competence scales. Arab American adolescents who experienced less acculturative stress would report having more friends and have higher academic achievement.

Research question 5. *What is the prevalence of psychological problems in this sample of 11- to 18-year-old Arab American adolescents?*

Incidence rates of psychological problems among Arab American samples have not been widely researched. One survey of Arab American youth, conducted at a community health center in a high-density population of Arab Americans, found that 30% of youth were diagnosed with

anxiety disorder, 28% with ADHD, 24% with depression, 13% with ODD and conduct disorders, and 6% with adjustment disorders (Sulaiman, 2008). While this survey provides mental health professionals with some data of the mental health needs of Arab American youth, it is unclear how these percentages compare to other American youth. A review of previous research has not revealed studies that have closely examined incidence rates of psychological problems for this population.

The *Achenbach System of Empirically Based Assessment* (ASEBA; Achenbach & Rescorla, 2001) syndrome profiles will be used to broadly encompass problems associated with internalizing and externalizing disorders. Adolescents between the ages of 11 and 18 will be included because the YSR only provides norms for those ages. Within-group comparisons among adolescents ages 19 – 21 will be analyzed to understand what types of psychological problems are being experienced among the older participants, once beyond high school. The proportion of clinically significant psychological problems will be provided for Internalizing Problems (Anxious/Depressed, Withdrawn/Depressed, and Somatic Complaints) and Externalizing Problems (Rule-Breaking Behavior and Aggressive Behavior).

Research question 6. *Do adolescents and parents have similar levels of acculturation (heritage cultural orientation, mainstream cultural orientation, and integrated acculturation)?*

While parents may have been raised in their heritage culture, children may have been raised primarily in the new culture, which has different traditions, norms, and expectations. Differences in acculturation between the parent and child have been shown to lead to increased parent-child conflict (Portes & Rumbaut, 1996). Sometimes this conflict occurs because parents and children have different expectations for behavior. For adolescents, there may be more opportunities for interacting with individuals from the mainstream culture, such as through

school or after-school jobs. Parents, and particularly mothers, may have fewer opportunities to interact with the mainstream culture and may instead choose to maintain their heritage cultural traditions.

It was hypothesized that there will be significant differences between parent acculturation and adolescent acculturation. If a parent is high on the heritage cultural orientation, for example, the adolescent would be low on the heritage cultural orientation. Furthermore, it was hypothesized that there would be significant differences between adolescents and parents on integrated acculturation. Specifically, adolescents would be high on integrated acculturation, while parents will be low on integrated acculturation.

Research question 7. *If generational discrepancies in acculturation exist, how is it related to adolescent psychological problems?*

Generational discrepancy in acculturation between parent and child has been shown to affect child psychological outcomes (Weaver & Kim, 2008). For example, one study using Muslim university students found that the higher the parent-child acculturation match, the fewer the depressive symptoms (Asvat & Malcarne, 2008). Other research has also suggested that the less generational discrepancy between the parent and child, the better the child's overall psychological adjustment (Kim et al., 2009).

In this study, generational discrepancy was defined as when the parent and adolescent acculturation (mainstream cultural orientation and heritage cultural orientation) was discrepant. For example, if a parent is low on mainstream cultural orientation, and the adolescent is high on mainstream cultural orientation, then generational discrepancy is present. If generational discrepancy in acculturation was present, it was hypothesized that there would be a significant relationship between generational discrepancy and adolescent psychological problems.

CHAPTER III

Method

Participants and Setting

Participants in this study were recruited through a clinic at a community center in a large Midwestern city. The community center serves a large Arab American population (approximately 132,000 people) as well as other ethnic groups. Employment, training and mental and physical health services are provided. Adolescents who self-identified as being of Arab descent and their parents were invited to participate in the study. Arab descent was defined based on the U.S. Census (2000). Arab countries included Lebanon, Egypt, Syria, Palestine, Jordan, Morocco, Iraq, Yemen, Kurdish, Algeria, Saudi Arabia, Tunisia, Kuwait, Libya, United Arab Emirates, Oman, Qatar, and Bahrain. Participants who did not consider themselves ethnically Arab but who are geographically from Arab nations (e.g., Berber, Kurd, and Chaldean) were also included for the purposes of this study.

Individuals of Arab descent in the United States follow a variety of religions; however, in this study the sample included mostly individuals of Muslim faith. This sample was likely because the community surrounding the clinic had a largely Muslim population. Although it may be more parsimonious to remove participants of non-Muslim faith in this study, doing so assumes cultural homogeneity among Muslim Arab Americans. This study examines the acculturative process of Arab Americans, a nationally and culturally heterogeneous group. There is some cultural similarity among Muslim people in the Arab world, but there is also a great deal of cultural heterogeneity across national groups (e.g., Iraqi Muslims compared to Sudanese Muslims). Similarly, removing participants by religious faith alone would discount cultural similarity between participants who have different faiths (e.g., Christian Lebanese and Muslim

Lebanese). Consequently, all participants were included and for continuity, all participants are called “Arab American.”

Community setting. The cultural context is important in understanding the characteristics of the research sample. The demographics of the community, including statistics from the community and information about the school districts are therefore provided (see Table 1). In a survey conducted by the Arab American Institute Foundation between 2005 and 2007, the area included a population of about 70,000 native-born and 62,000 foreign-born Arab Americans. The median income in this area is about \$50,000 and a per capita income of \$23,000 (U.S. Census Bureau, 2008). The distribution of national groups includes 36% Lebanese, 23% Assyrian/Chaldean/Syriac, 16% Arab/Arabic, 7% Iraqi, with the remainder consisting of other ethnic groups including Palestinian, Syrian and Egyptian (Arab American Institute, 2002).

In a demographic questionnaire, parents were asked to indicate the school their children attended. School district information was then collected through the National Center for Education Statistics (NCES) for the 2008-2009 school year (see Table 2 for information about the school district demographics). Unfortunately, students are categorized within school districts using the U.S. Census racial categorizations. Arab Americans are an ethnic rather than racial group. It is difficult, therefore, to determine the number of Arab Americans based on those data because Arabs can be racially White, Black, or Other. The majority of parents (73%) indicated that their children attended a large urban school district, where the majority of students are White. It is unclear whether this number includes Arab Americans or whether Arab Americans categorized themselves as “Other Race.” In terms of socio-economic status of the school districts, the average percent of students in each school eligible for free or reduced price lunch was approximately 50%.

Table 1

Select Demographic Information for a Major Metropolitan Area

	Total Population	Arab Population
Total population	4,488,815	132,079
Under 18 years	25.4%	35.6%
18-64	62.7%	58.0%
Over 65	12.0%	6.5%
Household		
Total Households	1,689,695	35,354
Average household size	2.62	3.72
Average family size	3.28	4.29
Educational Attainment		
Population 25 years and over	2,977,842	70,476
High school graduate (includes equivalency)	30.3%	25.7%
Some college or associate's degree	30.1%	21.6%
Bachelor's degree	16.0%	15.9%
Graduate or professional degree	10.1%	11.0%
High school graduate or higher	86.4%	74.2%
Bachelor's degree or higher	26.1%	26.9%
Place of birth, citizenship status and year of entry		
Total population	4,488,815	132,079
Native	4,102,148	70,066
Foreign born	386,667	62,013
Naturalized U.S. citizen	51.1%	60.3%
Not a U.S. citizen	48.9%	39.7%
Entered 2000 or later	26.5%	28.4%
Entered 1990 to 1999	31.5%	37.8%
Entered before 1990	42.0%	33.8%

Note: Data obtained through the U.S. Bureau of the Census, 2005-2007 American Community Survey 3-Year Estimates, Selected Population Profile

Adolescents. Adolescents who self-identified as being of Arab descent and who were between the ages of 11 and 21 were invited to participate in the study. A total of 135 adolescents between the ages of 11 and 21 ($M = 15.56$ years, $SD = 2.75$) completed questionnaires. One case was deleted because the participant reported an age of 26. Data for age and gender were gathered through the Youth Self-Report. Twenty-three participants completed other surveys, but did not complete the YSR, while some completed the YSR but did not complete the VIA; therefore, some data are missing. Specifically, 21 participants did not complete the YSR and 2 participants did not complete the VIA. Independent samples t-tests were conducted to determine whether there were significant differences between adolescents who completed the YSR and/or VIA and those who did not on the Marlow-Crowne Social Desirability Scale. No significant differences in response bias were found between adolescents who completed the YSR and those who did not, $t(127) = .60, p = .550$, and those adolescents who completed the VIA and those who did not, $t(127) = 1.25, p = .214$.

Table 3 provides demographic information for the adolescent participants. There were 52 males and 61 females. Information about gender and age were provided on the YSR, therefore, data on gender were not available for 21 participants. The average length of time in the United States was 14.46 ($SD = 3.89$). Approximately 96% of the adolescents reported that they were Muslim, with approximately 49% of those adolescent identifying as Sunni and 18% identifying as Shi'aa. The majority of the adolescents were born in the US ($n = 102$) followed by Lebanon ($n = 21$), Yemen ($n = 3$), Iraq ($n = 1$), Ivory Coast ($n = 1$), Kuwait ($n = 1$), Saudi Arabia ($n = 1$), Syria ($n = 1$) and not indicated ($n = 3$). Most adolescents ($n = 69, 52\%$) reported that they speak both English and Arabic equally, while 37% ($n = 49$) reported speaking mostly English. Two

percent of adolescents ($n = 3$) reported speaking only English and 8% ($n = 11$) reported speaking mostly Arabic.

Adolescents develop across a variety of ecological contexts which may have distinctive influences on their socialization. Thus, adolescents in this study were placed into one of three groups based on their school context. The context of development changes from childhood to adolescence to adulthood, and these groups were created to capture differences in the social and educational contexts. Peer groups become very important during early adolescence and continue to be important through late adolescence. There may be different types of peer groups, however, that develop during middle school as compared to those affiliated with after high school. During early adolescence, peer groups may include mostly friends from school or associated with the family (e.g., family friends). After graduation, however, adolescents may obtain jobs or go to college which may facilitate an expansion of who is included within that peer group. There is greater access to other people outside of the school context. Who one associates with may be an important factor in whether one seeks to maintain heritage culture or whether one wishes to participate in the mainstream culture. As a result, in this study, adolescents were categorized into one of three groups based broadly on school level: middle school, high school, and post-high school.

In this study, only participants who reported their age and their current school level were included in analyses relating to ecological context. School level was determined by using the common American public school grade categories: middle school (grades 6 to 8), high school (grades 9 to 12), and post-high school (college or work). It is important to note that some participants may be attending college or going to work but still residing in their family home. Traditionally, Arab families often consist of multiple generations of families living in the home

and it is unknown whether some post-high school participants were living on their own or with their immediate families. Some participants ($n = 48$) indicated their birthdate and/or age but did not include their current school level. Consequently, inclusion criteria for the ecological context were that the participant indicated his or her birth date or age and level of schooling, resulting in 23 middle school, 53 in high school and 11 in post-high school. One participant reported an age 14 and being in grade 4, and therefore was not included in the analyses.

Parents. Seventy-six parents completed the questionnaires, with approximately 91% mothers and 5% fathers. Three parents did not specify their role. Parent demographic information is provided in Table 5. Parents' age ranged from 31 to 56 ($M = 43.07$, $SD = 6.27$). Most parents were born outside of the United States (79%), with most born in Lebanon, Yemen, or Iraq (see Table 5). For parents who were not born in the U.S., the average age at arrival was 23.5 years ($SD = 10.0$). Most parents reported that they were Muslim (96%), followed by Christian (4%) and Jewish (1%). In addition, most parents reported that they spoke English and Arabic equally (41%). Parents reported both the mother's and father's education and employment. Most mothers received a high school degree or GED, and were not working by choice. Most fathers had a high school degree or GED and were employed full time.

Researchers

Three research assistants who were current staff members at the clinic administered the measures. The primary investigator did not have individual contact with participants. The assistants' role in the clinic was to conduct intake interviews for youth between the ages of 11 and 21 and their parents. The assistants had a minimum of a high school diploma in addition to college credit, had worked at the clinic for at least one year, and were fluent in English and Arabic. Two research assistants were female and one was male. The assistants completed and

Table 2

School District Demographic Information

School District	Schools	Students	ELL Students	Under age 18	Racial Demographic					
					White	Black	American Indian	Asian	Hawaiian	Other
Urban school district	36	18,478	6028	29,041	23,787	554	65	451	4	258
Charter School #1	1	1210	686	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Suburban School District #1	5	2877	9	4396	4279	16	23	52	3	18
Charter School #2	3	1118	305	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Community School District	12	5689	933	6753	6216	125	41	112	3	107
Charter School #3	1	485	35	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Suburban School District #2	6	2859	329	3280	3112	20	15	26	0	31
Suburban School District #3	5	3458	236	6028	5320	99	17	174	0	72

Note: National Center for Educational Statistics. (2011). Common Core of Data. Retrieved February 12, 2011, from <http://nces.ed.gov/ccd/districtsearch/index.asp>

Table 3

Demographic Characteristics of Adolescent Participants

Variable	<i>n</i>	%
Gender	113	
Male	52	46.0
Female	61	54.0
Age	113	
Middle School (11 - 13)	58	43.3
High School (14 - 17)	28	20.9
Post High School (18 - 21)	27	20.2
Religion	133	
Muslim	128	96.2
Sunni	63	49.2
Shi'aa	23	18.0
Christian	2	1.5
Jewish	1	0.75
Druze	1	0.75
No religion	1	0.75
Language	133	
Mostly English	49	36.8
English & Arabic equally	69	51.9
Mostly Arabic	11	8.3
Only English	5	3.8
Another Language	0	0

Table 4

Country of Birth for Adolescent and Parents

Country	Adolescent (<i>n</i> = 134)		Parent (<i>n</i> = 76)	
	<i>n</i>	%	<i>n</i>	%
United States	102	76.1	16	21.1
Lebanon	21	15.7	48	63.2
Yemen	3	2.2	4	5.3
Iraq	1	0.75	4	5.3
Ivory Coast	1	0.75	0	0
Kuwait	1	0.75	1	1.32
Syria	1	0.75	1	1.32
Saudi Arabia	1	0.75	1	1.32
Jordan	0	0	1	1.32
Not reported	3	2.24	0	0

Table 5

Parents' Education and Employment

Variable	Mother	Father
Education	67	62
Grade 0 - 8	1	5
Grades 9 -11	10	12
High School/GED	28	22
Some college	17	10
College graduate	9	11
Post college	2	2
Employment	60	51
Full Time	14	33
Part Time	12	8
Not working (receiving govt	5	7
Not working by choice	29	3

passed the Michigan State University (MSU) Institutional Review Board Human Research Program online training program.

The primary investigator provided two one-hour training sessions to ensure consistent and systematic data collection procedure. The first session included an overview of the purpose of the research, a discussion of ethical responsibility in research, and a review of the standardized procedure for administering the surveys. Scripts were provided for each section of data collection. The purpose of the second training session was to review specific items on the measures.

Recruitment

Permission was obtained from the Senior Director of the community center to recruit participants. Participants were recruited in two ways. First, an informational flyer was posted in the common areas in the community center (e.g., waiting room, hallway bulletin boards) as well as in the surrounding community (e.g., local grocery stores, community centers, religious organizations). This flyer described the study and asked for participation. Participants either contacted the primary investigator for more information or contacted staff members at the center's front desk for information. Second, parents who made appointments for health screenings for their children were asked by a staff member whether they would like to participate in the study. For both recruitment procedures, parents and their children completed the survey at the health center.

Data Collection and Consent Procedure

Parent data collection procedure. Parents and adolescents were invited to come to a private office located in the clinic. Parents received a copy of the consent form (see Appendix A) in both English and Arabic. The researchers verbally informed the parent about the purpose of

the research, the expected amount of time it would take to complete the surveys, risks and benefits, and compensation. Parents were given a consent form in both English ($n = 60$) and Arabic ($n = 16$) that described the purpose of the study, how the data would be collected and used for research purposes only, and that all data would be kept confidential. As an incentive to participate, each parent and adolescent was offered a \$15 Wal-Mart gift card in appreciation of their time.

The researcher gave a packet of surveys to the parent to complete either in English or Arabic, depending on the parent's language preference. If the parent was not literate, the researcher read each item to the parent. The researcher clarified specific items for the parent as needed. Parents completed the survey in the waiting room while his/her child went to a private office to complete their questionnaires. The research assistant was available to answer any questions.

Adolescent data collection procedure. Once the parent provided consent for his or her child's participation, the researcher brought the adolescent to a private office while the parent completed the survey in the adjoining waiting room. The researcher explained to the adolescent in either English or Arabic, the purpose of the study, risks and benefits, and compensation. If the adolescent agreed to participate in the study, he or she signed the consent form if the individual was 12 years or older, or signed an assent form if he or she was 11 years old (see Appendix B). As an incentive to participate, all adolescents were given a \$15 Wal-Mart gift card in appreciation for their time

The adolescent completed a packet of surveys in either English ($n = 134$) or Arabic ($n = 1$), depending on the adolescent's language preference. The researcher asked the adolescent whether he or she preferred to have the researcher read the items or for the adolescent to read by

him or herself. As the adolescent completed the survey, the research assistant stayed in the room but sat approximately 4 feet away to provide privacy. The research assistant was available to answer or clarify specific items for the adolescent as needed.

Measures

Parents completed two measures, which took approximately 10-15 minutes: a demographic questionnaire and the Vancouver Index of Acculturation (VIA). Adolescents completed six measures which took approximately 30-45 minutes: a demographic questionnaire, the VIA, the Societal, Academic, Familial, and Environmental Acculturative Stress Scale: Children's Version (SAFE-C), subscales of the Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS), the Reynolds Short Form of the Marlowe-Crowne Social Desirability Scale (MC Scale), and the Youth Self-Report (YSR). Measures were provided to each participant in either English or Arabic, depending on the participant's language preference.

Adolescent Demographic Questionnaire. A 10-item questionnaire was developed by the researcher and adapted from Amer (2005) to obtain socio-demographic information on the adolescents. Items asked for information on age, sex, ethnicity, religious affiliation, and preferred language at home, parent conflict, and peer ethnic group (see Appendix C). Specific items include, "At home, do you speak... [Only English, Mostly English...]", "How often do you and your parent(s) disagree or have conflict?" and "Which answer best describes your grade average this semester?"

Parent Demographic Questionnaire. A 15-item questionnaire was developed by the researcher to obtain socio-demographic information (see Appendix D). Items asked for information on age, sex, ethnicity, religious affiliation, preferred language at home, and frequency of parent-adolescent conflict. Items include, "How long have you been living in the

United States?”, “How often have you visited an Arab country?” and “At home, do you speak... [Only English, Mostly English...]”.

Vancouver Index of Acculturation. The *Vancouver Index of Acculturation* (VIA) was used to measure the participant’s acculturation (Ryder et al., 2000). The VIA is a 20-item self-report using a bidimensional model of acculturation (heritage cultural orientation and mainstream cultural orientation; see Appendix E). The unidimensional model of acculturation was used in prior research to characterize a continuum, with the heritage culture on one end and mainstream culture on the other (e.g., Gordon, 1964). The bidimensional model, however, may be a more sensitive and acceptable model of acculturation because it can distinguish between individuals who identify themselves with only their heritage culture, only the mainstream culture, both cultures, or neither culture. Using this approach, individuals’ cultural orientation can be more adequately captured as bidimensional.

The VIA measures the degree to which an individual associates with each culture using a 9-point Likert scale ranging from “Strongly Disagree” to “Strongly Agree.” Items on the VIA are categorized as values, social relationships, and adherence to traditions. Items include “I often participate in my heritage cultural traditions,” “I would be willing to marry a North American person,” and “I often behave in ways that are typical of my heritage culture.” Ten items are based on North American culture and 10 items are based on the heritage culture. Two scale scores are derived from calculating the mean of all items related to either the Heritage Culture (HC) scale or the Mainstream Culture (MC). Higher scores on each scale indicate higher association with the culture.

For this study, the VIA was modified to make the wording more age-appropriate. For example, in the introductory statement, the original version states: “Please answer each question

as carefully as possible by circling *one* of the numbers to the right of each question to indicate your degree of agreement or disagreement.” This was modified to state: “Please answer each question as carefully as possible by circling *one* of the numbers to the right of each statement. Circle the 1 if you strongly disagree, circle 5 if you are neutral, and circle 9 if you strongly agree with the statement. Remember, choose one of the numbers.” To make comparisons between parent and adolescent acculturation strategies, the same modified version was also given to the parents.

The VIA was also modified by separating the two scales. In a previous study using the VIA with Arab American samples (Amer, 2005), participants noted that it was confusing to first read one Heritage Culture item followed by a Mainstream Culture item (Amer, personal communication, August 8, 2009). To minimize confusion, especially with adolescent participants, one page included all items for the Heritage Culture and a second page included all items for the Mainstream Culture. Two versions of the VIA were randomly ordered to control for order effects.

Ryder et al (2000) reported the Cronbach reliability coefficient for the Heritage Culture subscale ranged from 0.82 to 0.91 and for the Mainstream Culture subscale ranged from 0.85 to 0.89. In their study, internal structure and orthogonality were also evaluated, with an item intercorrelation of -0.18 for Chinese, -0.13 for East Asian, and -0.10 for miscellaneous samples. Concurrent validity was also assessed by comparing the percentage of time living in the mainstream culture, percentage of time educated in the country, generational status, sojourner status, language status, mainstream identification, and mean score on another acculturation measure (Suinn-Lew Asian Self-Identity Acculturation Scale). Significant correlations were found across the different indices. Principal-components analysis was also used to evaluate the

factorial validity. As expected, two component loadings were identified: Mainstream Culture and Heritage Culture.

Societal, Academic, Familial, and Environmental Acculturative Stress Scale:

Children's Version (SAFE-C). The *Societal, Academic, Familial, and Environmental Acculturative Stress Scale: Children's Version* (SAFE-C) was administered to all adolescents (see Appendix F). This scale is a modified version of the Short SAFE created to be developmentally appropriate for children (Chavez, Moran, Reid, & Lopez, 1997). The SAFE-C consists of 36 items using a 6-point Likert-type format, to measure acculturative stress. Sixteen items measure general stressors that all children may experience, regardless of ethnicity. The other items are within an acculturation domain and measure potential stressors that are specific to ethnicity. This domain includes process-oriented items and items related to perception of discrimination. Examples of process-oriented items are "People think I am shy, when I really just have trouble speaking English" or "It's hard to be away from the country I used to live in." Items related to perceived discrimination include "Because of the group I am in, I don't get the grades I deserve" and "People think badly of me if I practice customs or I do the 'special things' of my group." Scores obtained on the SAFE-C can range between 0 and 180. A total score, general social stress score (range 0 – 80), process-oriented stress (range 0 – 70), and perceived discrimination scores (range 0 – 30) can be obtained, with higher scores indicating higher-levels of perceived stress.

The SAFE-C has good reliability and validity. Chavez, et al. (1997) reported a Cronbach's alpha of 0.86 (comparable to adult version SAFE). In addition, when comparing scores obtained by Latino and White child participants, there was a significant difference between mean scores, suggesting that the measure has high validity. This measure, however, has

not been studied with other ethnic or immigrant groups. In the current study, a Cronbach's alpha of 0.75 was found, suggesting good reliability.

Dimensions of the Brief Multidimensional Measure of Religiousness/ Spirituality.

Four domains of the *Brief Multidimensional Measure of Religiousness/Spirituality* (BMMRS; Fetzer Institute & National Institute on Aging Working Group, 1999) were administered to subjects in this study (see Appendix G). The original BMMRS is a 54-item scale designed to measure 11 key dimensions of religiousness and spirituality. In this study, four domains—Organizational Religiousness, Private Religious Practices, and Overall Religiousness and Overall Spirituality—were included. These four domains were included in the survey because they were reported to have high validity and reliability. Moreover, including only four domains would minimize the number of items adolescents would have to complete.

Religiosity is a multidimensional and multifaceted construct (Hackney & Sanders, 2003), and including only one global measure of religiosity has been shown in the previous literature to have low validity. Including four domains of the BMMRS provided a broader conceptualization of religiosity than simply including a global measure of religiosity. Moreover, the four domains that were chosen for the study capture important components of religiosity such as the frequency of attendance in religious organizations, involvement in informal religious activities as well as subjective reports of religiousness and spirituality. The other domains of the BMMRS such as religious coping and forgiveness are important variables to consider in religiosity but are beyond the scope of this study. Moreover, previous studies that included the BMMRS with adolescents (e.g., Pearce, Little, & Perez, 2003) showed that the four domains are appropriate for measuring religiosity with this population.

Organizational Religiousness (ORG) domain asks for information about the extent to which the subject is involved with formal religious institutions such as church or a mosque (“How often do you go to religious services?”). There are six response options, from 1 (more than once a week) to 6 (never), and possible scores can range from 2 to 12. In this study, internal consistency reliability estimates using Cronbach's alpha for ORG was .76. The Private Religious Practices (PRP) domain asks the subject about involvement in religion that is more informal or related to non-institutions (“How often do you pray privately in places other than at church or mosque?”). Two items include an eight point Likert scale, 1 (several times a day) to 8 (never), while one item used a five point scale. Possible scores ranged from 4 to 32. In this study, internal consistency reliability estimates using Cronbach's alpha for PRP was 0.69. The Overall Religiousness (REL) and Spirituality (SPI) domains asked about the extent to which one is religious and spiritual (“To what extent do you consider yourself a spiritual person?”). There are four response options, ranging from 1 (very religious [spiritual]) to 4 (not religious [spiritual] at all). Possible scores ranged from 2 to 8.

Tests of reliability and validity were conducted by the Fetzer Institute (Fetzer Institute & National Institute on Aging Working Group, 1999). Adequate reliability was found for ORG ($\alpha = 0.82$), PRP ($\alpha = 0.72$), and OSR ($\alpha = 0.91$). The BMMRS was further tested for reliability and validity with adolescents (Harris et al., 2008). The long form of BMMRS was administered to 305 adolescents, ages 12 - 18 years. There was adequate internal consistency ($\alpha \geq 0.70$) for several scales including the Private Religious Practices domain, Organizational Religiousness and Overall Self-ranking. Test-retest reliability for the PRP ($\alpha = 0.87$), ORG ($\alpha = 0.90$), and REL/SPI ($\alpha = 0.78$). In the current study, adequate reliability was found for PRP ($\alpha = 0.69$), ORG ($\alpha = 0.76$), and REL/SPI ($\alpha = 0.65$).

Reynolds Short Form A of the Marlowe-Crowne Social Desirability Scale. The Reynolds Short Form A of the Marlowe-Crowne Social Desirability Scale was administered to each adolescent (see Appendix H). The original version of the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960) includes 33 True/False items. Several authors (e.g., Reynolds, 1982; Strahan & Gerbasi, 1972) developed short forms of the Marlowe-Crowne (MC Scale) scale as a result of a need to reduce the number of items subjects were completing, particularly when there were multiple measures in the study. Reynolds created three versions of a short form (Short Forms A, B, and C) by identifying those items that loaded on the first latent factor on a principal component factor analysis. The Reynolds Short Form A was used in this study because it has adequate validity and reliability, and is recommended as one of the two best fitting short versions of the MC Scale (Loo & Thorpe, 2000).

The Reynolds Short Form A is an 11-item True/False measure that includes items such as “It is sometimes hard for me to go on with my work if I am not encouraged” and “There are times when I was quite jealous of the good fortune of others.” Scores (2 – 22) are calculated by determining whether the respondent’s answer matches the keyed response (6 false, 5 true). High scores suggest high social desirability.

Loo and Thorpe (2000) completed a factor analysis of the full and short versions and Cronbach alpha coefficients were obtained for the Reynolds Short Form A ($\alpha = 0.59$), Form B ($\alpha = 0.61$), and Form C ($\alpha = 0.62$). Based on the fit indices, Loo and Thorpe recommended the use of either Short Form A or B. Barger (2002) also completed psychometric testing of the full and short versions and found internal consistencies in the Reynolds Short Form A ($\alpha = 0.74$), B ($\alpha = 0.75$), and C ($\alpha = 0.76$). Confirmatory factor analyses suggest that Forms A and B are

structurally adequate, although there was significant chi-square values for these forms and low fit indices (≤ 0.80).

Youth Self-Report. An English and Arabic version of the Achenbach Youth Self-Report (YSR) was administered to all adolescents. The YSR is designed to measure social and emotional functioning of children between the ages of 11 and 18. There are two main components of the YSR. The first component includes 20 items that measure the child's preferences in sports, chores, games, hobbies, and activities, friendship preferences, and performance on academic subjects, as well as open-ended questions relating to personal strengths and weaknesses. The second component of the YSR includes 112 items on a 3-point Likert scale (0 = not true, 1 = somewhat or sometimes true, 2 = very true or often true). These items measure eight sub-scale symptoms: Anxious/Depressed, Withdrawn/Depressed, Somatic Complaints, Social Problems, Thought Problems, Attention Problems, Rule-Breaking Behavior, and Aggressive Behavior (Achenbach & Rescorla, 2001). These sub-scale symptoms were then combined into three broad categories: Internalizing Problems, Externalizing Problems, and Total Problems.

The Youth Self-Report has been widely researched and found to be reliable and valid across multiple populations and settings (Achenbach & Rescorla, 2001). The YSR has high internal consistency, with a Cronbach's alpha coefficient of .79 ($p < .05$) and a test-retest reliability of .79 ($p < .05$) for empirically-based syndromes. For the Internalizing and Externalizing Scales, a Cronbach's alpha coefficient reliability was .90 ($p < .05$), with a test-retest reliability of .85 ($p < .05$). The Total Problems scale had a Cronbach's alpha coefficient of .95 ($p < .05$) with a test-retest reliability of .87 ($p < .05$). In the current study, internal consistency was found across the YSR subscales, with Cronbach's alpha coefficient of .89.

In 2007, multicultural norms were established based on 113,671 participant responses for the YSR (Achenbach & Rescorla, 2001) and from 23 societies in Africa, Asia, Australia, the Caribbean, Europe, the Middle East, and North America (Ivanova et al., 2007). Mean alphas were 0.94 for Total Problems, 0.87 for Internalizing and Externalizing, and 0.76 for the syndromes. Small to medium effect sizes for differences among the societies were found. Consistent gender and age effects were also found (Achenbach, et al., 2008).

Participants' scores were obtained in comparison to gender-specific U.S. national norms for children ages 6 –11 and 12 – 18 years. T-scores were used to determine whether the adolescent is in the clinical, borderline, and normal range. Borderline ranges are from 60 to 63, and the clinical range includes scores above 63. T-scores below 60 are considered within the normal range.

Child psychological disorders were characterized using the broad profiles of internalizing and externalizing problems. Conceptually, child psychopathology is defined in multiple ways. While the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR; American Psychiatric Association, 2000) is primarily used in psychology to diagnose children and adolescents, other approaches to categorizing symptoms have been used. In fact, some have argued that the DSM-IV-TR diagnostic criteria under-represent childhood or adolescent disorders and that these disorders are not sufficiently sensitive to development and context (Wodrich, Pfeiffer, & Landau, 2008).

Other researchers (e.g., Achenbach) suggest using clusters of symptoms within two broad profiles: internalizing and externalizing problems. These broad syndrome profiles are useful for describing a shared set of symptoms in children and adolescents. “Internalizing Problems” characterizes those symptoms within the self (e.g., anxiety, depression), while “Externalizing

Problems” characterizes problems involving conflicts with other people or context (e.g., aggression, attention; Achenbach & Rescorla, 2001). Using these dimensions can be useful for understanding the common set of patterns of symptoms. Each of the dimensions has a common pattern of etiology, treatment, outcome, and life course. For example, while internalizing symptoms tend to increase over the lifetime, externalizing symptoms tend to decrease.

In this study, U.S. norms of the ASEBA were used as an alternative to culture-specific norms. This study sought to understand how individuals from Arab heritage cultures transition to a different cultural context (i.e., host, mainstream U.S. culture), and the extent to which Arab American adolescents are adjusting based on the cultural definitions of psychopathology in the host culture. Although it may be useful to compare psychopathology to available culture-specific norms because behavior can be judged in relation to their heritage culture, Arab Americans have been transplanted to a new host culture where their behaviors are judged based on the norms of that host society. The educational context is one of the primary means by which psychological problems are discovered (e.g., referrals from teachers), and it is also where adolescents spend the majority of their time. Behaviors are therefore judged based on mainstream American definitions of “normal” behavior.

Another option, however, may be to use culture-specific norms in addition to U.S. norms. In this way, the adolescent’s behavior is compared to his or her heritage culture as well as the host culture. This comparison would allow for culturally-meaningful interpretations of adolescent behavior while at the same time comparing that behavior to American peers. While this may be ideal, the current ASEBA norms only include a limited number of societies from the Middle East and Northern Africa. While there are cultural similarities within Arab societies, it

would not be valid to compare, say, a Lebanese American adolescent to norms from Algeria. Consequently, U.S. norms were used.

CHAPTER IV

Results

Data were entered and scored on a computer that was password protected. No personal identifying information was recorded on the database and ID numbers were used. Raw data were reviewed using descriptive statistics and visual presentation of data to determine if there were errors. To examine the socio-demographic variables of the participants, descriptive and bivariate statistics were used for examining the means, frequencies, standard deviations. Preliminary analyses are first presented to test for any violations of statistical assumptions. Then, descriptive data are summarized. Finally, the results of data analyses for each of the seven research questions are presented.

Preliminary Analyses

Preliminary analyses were conducted to ensure that the assumptions were met. Graphical analyses of probability plots and histograms were used to examine whether the data were normally distributed. Statistical analyses (e.g., Levene's statistic) were used to ensure the data did not violate the assumption of homogeneity of variance.

For VIA-Heritage, preliminary analyses were conducted to determine whether assumptions were met for analyses of variance. Tests of homogeneity of variance using Levene's statistic was significant, $W(2,108) = 4.487, p = .013$. Given that analyses of variance are robust even when there is small to moderate deviation from the assumption, the variances across the three groups were compared to determine whether the ratios across the smallest and largest variance were greater than three (Box, 1954), although some have argued that a more lenient ratio is 4 to 1 (Moore, 1995, as ctd in Garson, 2010). The variances across middle school

(variance = 4.97), high school (variance = 2.57) and post-high school (variance = 5.58) resulted in ratios that were less than 3. Consequently, analyses of variances were used.

Preliminary analyses were also conducted for gender on integrated acculturation to determine whether there were any violations of assumptions. Tests of homogeneity using Levene's statistic was significant, $W(2, 109) = 8.33, p < .001$. The variances across males (variance = 401.47) and females (variance = 170.0) suggested that the ratio was lower than 3 (ratio = 2.34) and ANOVA was used.

Descriptive Statistics

Descriptive statistics were computed for the four primary measures (VIA, SAFE-C, BMMRS, and YSR). Adolescent participants who completed the VIA reported relatively high scores on the VIA-American ($M = 5.91, SD = 1.72$) and the VIA-Heritage ($M = 6.91, SD = 1.88$) subscales. There was a possible range on the VIA of 1 to 9. Adolescents reported a mean of 40.79 ($SD = 16.80$) for VIA-Integrated. Parent participants who completed the VIA reported a mean of 5.42 ($SD = 2.01$) for VIA-American and a mean of 7.30 ($SD = 1.78$) for VIA-Heritage, and a mean of 38.45 ($SD = 17.54$) for VIA-Integrated.

On the SAFE-C Total Score completed by the adolescent participants, there was a mean of 50.18 ($SD = 25.21$) with a range of 2 to 126. Finally, for adolescents who completed the YSR, there was a mean of 41.35 ($SD = 32.58$) in the Total Problems score and a mean of 2.71 ($SD = 2.74$) in the Total Competence score.

Descriptive statistics were also conducted for the composite score of the *Brief Multidimensional Measure of Religiousness/Spirituality*. The composite score is comprised of four domains of the BMMRS: religiousness (REL), spirituality (SPI), organizational religiousness (ORG) and private religious practices (PRP). Bivariate correlations were conducted

and presented in Table 6. The composite score of the BMMRS had a mean of 33.39 ($SD = 9.42$) with a range of 11 to 52. Religiosity composite score was computed into three groups for 128 participants: 1 = low, 2 = medium, and 3 = high.

Table 6
Bivariate Correlations of Four Domains of the Brief Multidimensional Measure of Religiousness/Spirituality

Variable	Zero Order r			
	1	2	3	4
1. Religiousness	-	.48***	.49***	.52***
2. Spirituality	-	-	.47***	.52***
3. Organizational Religiousness	-	-	-	.51***
4. Private Religious Practices	-	-	-	-

Intercorrelations across the four primary measures completed by the adolescent participants were computed. For the acculturation measure, VIA-American was significantly positively correlated with SAFE-C Total ($r = .24, n = 132, p < .01$) and with VIA-Integrated ($r = .76, n = 131, p < .01$). VIA-Heritage was significantly negatively correlated with YSR-Total Problems ($r = -.20, n = 111, p < .05$) and with the composite score of the BMMRS scales ($r = -.25, n = 126, p < .001$). VIA-Integrated was also significantly positively correlated with SAFE-C Total ($r = .18, n = 131, p < .05$). Acculturative stress as measured by the SAFE-C Total was significantly negatively correlated with BMMRS ($r = -.26, n = 128, p < .001$) and positively correlated with YSR Total Competence ($r = .32, n = 105, p < .001$) and with YSR Total Problems ($r = .47, n = 112, p < .001$). Finally, YSR Total Problems was negatively correlated with BMMRS ($r = -.21, n = 108, p < .05$) as well as positively correlated with Total Competence ($r = .26, n = 106, p < .001$).

Additionally, correlations were conducted between the variables and the Marlow-Crowne scales to examine participants' level of social desirability. Pearson bivariate correlations were calculated for VIA-American ($r = -.08, p = .36, n = 128$), VIA-Heritage ($r = .02, p = .82, n = 127$), and VIA-Integrated ($r = -.07, p = .43, n = 127$). Additionally, Pearson bivariate correlations were calculated for Religiosity composite score, ($r = -.03, p = .73, n = 124$). Finally, Pearson bivariate correlations were calculated for SAFE-C Total Score ($r = -.21, p = .02, n = 129$), suggesting a significantly negative correlation between social desirability and acculturative stress.

Research Question 1. *Does acculturation (heritage cultural orientation, mainstream cultural orientation, and integrated acculturation) vary by school level, gender, religiosity, and by length of time in the U.S.?*

The first goal of this study was to determine whether acculturation varied by school level, gender, religiosity and length of time in the United States. Three separate analyses of variance were conducted for the independent variables on VIA-Heritage, VIA-American, and VIA-Integrated. Although multivariate analyses of variance (MANOVA) were considered for this data analysis, univariate analyses of variance was chosen because some MANOVA assumptions were not met. Specifically, this study had a relatively small sample size and there is a small correlation between two of the dependent variables (VIA-American and VIA-Heritage, $r = .17$). Consequently, univariate analyses of variance were chosen.

To determine whether acculturation varied by school level and gender, three scores from the Vancouver Index of Acculturation (VIA) were tabulated. The heritage cultural orientation score (VIA-Heritage) and the mainstream cultural orientation (VIA-American) scores were calculated by finding the means of items in each subscale. An additional variable, "interaction

multiculturalism” (Rudmin, 2006) was created (heretofore called integrated acculturation). The integrated acculturation variable (VIA-INT) was calculated from the two subscales to measure the interaction between VIA-H and VIA-M orientations: $H - M_H \times M - M_M$, where M_M and M_H are the means of the mainstream and heritage scales, respectively. Then, separate analysis of variance (ANOVA) was conducted to determine whether acculturation varied by gender (female, male), age (middle school, high school, post-high school), religiosity (REL, SPI, ORG, and PRP), and length of time on the heritage cultural orientation (VIA-Heritage), mainstream cultural orientation (VIA-American), and integrated acculturation (VIA-Integrated).

School level. School level was coded as middle school = 1, high school = 2, post-high school = 3. A one-way independent ANOVA was conducted to examine differences across the three groups on mainstream cultural orientation (see Table 7). No main effect was found for school level on VIA-American, $F(2, 83) = 1.44, p = .243$. Then, a one-way independent ANOVA was conducted to examine differences by school level on heritage cultural orientation and no significant main effect was found $F(2, 82) = .918, p = .403$. Finally, a one-way independent ANOVA was conducted to examine differences by school level on integrated acculturation. No significant main effect was found on VIA-Integrated, $F(2, 83) = .412, p = .664$. In sum, results showed no significant difference between adolescents in middle school, high school, or post-high school on any of the cultural orientations.

Although no significant differences were found across orientations by school level, there may be differences between school levels in the number of years the participant had lived in the United States. In other words, perhaps one or more groups were comprised of participants who lived in the U.S. for different amounts of time, perhaps resulting in some differences between participants at each school level. Age of arrival was compared across school level. Analyses of

variance showed no significant differences between middle school, high school, and post-high school participants, $F(2, 17) = .605, p = .558$. Then, school level was compared by the number of years the adolescents have lived in the United States. Analyses of variance showed that there was a significant main effect on length of time in the U.S. by school level, $F(2, 78) = 13.09, p < .001$. There was a significant difference in length of time between middle school ($M = 11.16, SD = 2.73$) and high school ($M = 14.21, SD = 2.873$) and between middle school and post-high school adolescents ($M = 16.55, SD = 4.25$). There was no significant difference between high school and post-high school adolescents in the number of years they had lived in the United States.

Table 7

Mean Differences of Demographic Factors on Acculturation

Variable	VIA-American		VIA-Heritage		VIA-Integrated	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
School level						
Middle School	5.52	1.73	6.47	2.23	41.74	18.23
High School	6.10	1.61	6.87	1.60	39.26	16.90
Post-high school	6.05	1.50	6.09	2.36	39.26	18.65
Gender						
Males	5.89	19.7	6.42	2.13	38.03	20.56
Females	5.84	14.7	7.00	1.70	40.96	13.04
Length of Time in U.S.						
2 – 8 years	6.75	0.82	6.93	.95	47.14	11.25
9 – 15 years	5.81	1.61	6.71	1.88	39.21	16.61
16 – 21 years	6.03	1.73	6.95	2.00	42.39	16.46

Note: VIA = *Vancouver Index of Acculturation*

Gender. Analyses were conducted to investigate whether there were differences between males and females on acculturation. A one-way independent ANOVA was conducted to compare males and females on VIA-American and no main effect was found for gender, $F(1, 110) = .027$, $p = 0.87$. A one-way independent ANOVA was conducted to compare males and females on VIA-Heritage. No significant main effect was found for gender on heritage cultural orientation, $F(1, 110) = 2.59$, $p = 0.11$. A one-way independent ANOVA also showed no main effect for gender on VIA-Integrated, $F(1, 110) = 0.838$, $p = 0.362$.

Religiosity. Religiosity is comprised of four subscales—religiousness, spirituality, organizational religiousness and private religious practices. Originally, all four variables were going to be included separately in the analyses. However, when the correlations were computed using Pearson product-moment correlation coefficient, there was high multicollinearity across the four variables due to their conceptual similarity. Religiousness (REL) and spirituality (SPI) were significantly positively correlated, $r = .48$, $n = 130$, $p < .001$. A positive correlation was also found between organizational religiousness (ORG) and REL ($r = .49$, $n = 131$, $p < .001$) and ORG and SPI ($r = .47$, $n = 128$, $p < .001$). In addition, private religious practices (PRP) was significantly positively correlated with REL ($r = .52$, $n = 133$, $p < .001$), SPI ($r = .52$, $n = 130$, $p < .001$) and ORG ($r = .51$, $n = 131$, $p < .001$). Although there was a high degree of collinearity across the religiosity variables, none of the r values were above 0.7. Moreover, Variance Inflation Factors (VIF) were examined in all the regression models and were less than 10 (Bowerman & O'Connell, 1990). Nonetheless, for the second research question in this study, which requires regression analyses, the model was non-significant while some of the individual betas were statistically significant, making interpretation of the results difficult.

To minimize the influence of multicollinearity, several options were available. For example, reducing the number of predictor variables (e.g., dropping the least correlated religiosity variable) was one possibility. However, given that religiosity is a multidimensional construct, dropping some of the variables may mask some of the predictive value of religiosity. Similarly, conducting an exploratory factor analyses would reduce the number of variables, but would ignore important information related to religiosity. As a result, a third option of computing a composite of the four variables was chosen (“Religiosity Composite Scale”). The reliability of the scale was computed, and the Cronbach alpha coefficient was .80. Consequently, to create consistency across data analyses in this study and to ensure interpretability of the religiosity construct, the Religiosity Composite Score was chosen as the primary variable.

The four subscales were added to make a composite religiosity variable. The range of scores in this sample is 11 to 52. Participants were divided into three groups based on the following range of composite religiosity scores: Low (11 – 24), Moderate (25 – 38), and High (39 – 52). Mean differences are shown on Table 8.

A one-way ANOVA was conducted to determine whether mainstream cultural orientation varied by religiosity. Results showed no significant main effect of REL on VIA-American, $F(2, 126) = 2.36, p = 0.10$. A one-way ANOVA conducted on VIA-Heritage resulted in a significant main effect for REL, $F(2, 125) = 10.98, p < .001$. Bonferroni post-hoc analyses indicated that there was a significant difference between the Low ($M = 5.30, SD = 2.11$) and Moderately religious groups ($M = 7.37, SD = 1.57$), and between the Low and Highly religious groups ($M = 6.98, SD = 1.86$). Effect sizes were calculated for the analyses of variance ($\eta^2 = 0.15$), showing a small effect size. Finally, a one-way ANOVA was conducted on VIA-Integrated yielded a significant main effect for REL, $F(2, 125) = 5.358, p = .006$. Bonferroni post-hoc analyses

Table 8

Mean Differences in Religiosity on Acculturation

Variable	VIA-American		VIA- Heritage		VIA- Integrated	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
REL						
Low	5.19	1.92	5.30	2.11	30.47	1.91
Medium	5.93	1.63	7.37	1.57	42.91	1.56
High	6.16	1.73	6.98	1.86	42.99	1.47

Note. VIA = *Vancouver Index of Acculturation*; Religiosity subscales were taken from the *Brief Multidimensional Measurement of Religiousness/Spirituality* (BMMRS)

indicated that there was a significant difference between the Low ($M = 30.47$, $SD = 1.91$) and Moderate groups ($M = 42.91$, $SD = 1.55$) and between the Low and High groups, ($M = 42.10$, $SD = 1.47$). Effect sizes were calculated ($\eta^2 = 0.08$), showing a small effect size.

Length of time living in the U.S. To compare how acculturation varies by length of time living in the United States, first, three groups were created with adolescents who have lived for 2 to 8 years ($n = 8$), 9 to 15 years ($n = 56$), and 16 to 21 years ($n = 46$). A one-way independent ANOVA was conducted of length of time in the U.S. on VIA-American. No significant main effect was found, $F(2, 129) = 1.21$ $p = .30$. Then, a one-way independent ANOVA was conducted on length of time in the U.S. on VIA-Heritage. No significant main effect was found of length of time on VIA-Heritage, $F(2, 128) = 0.22$ $p = .80$. Finally, a one-way independent ANOVA was conducted of length of time in the U.S. on VIA-Integrated. No significant main effect was found, $F(2, 128) = 1.08$, $p = 0.34$.

Overall, the focus of this first research question was to examine how acculturation varied by school level, gender, religiosity, and length of time living in the United States. There were no

significant differences on school level, gender or length of time in the U.S. on mainstream cultural orientation, heritage cultural orientation, or integrated acculturation. There were significant differences, however, on religiosity. Results in this study supported the hypothesis that Arab American adolescents who reported high religiosity would be more likely to report higher heritage cultural orientation and lower mainstream cultural orientation compared to those adolescents who reported low or moderate religiosity. Moreover, moderately religious adolescents were more likely to report higher heritage cultural orientation than less religious adolescents. Finally, highly religious and moderately religious adolescents were also more likely to report higher integrated acculturation compared to less religious adolescents.

Research Question 2 *How do age, gender, religiosity, and length of time in the United States explain acculturation (heritage cultural orientation, mainstream cultural orientation, and integrated acculturation)?*

The second goal of this study was to examine how age, gender, religiosity, and length of time in the U.S. explained acculturation (VIA-American, VIA-Heritage, and VIA-Integrated). To determine which variable is likely to predict heritage cultural orientation, mainstream cultural orientation and integrated acculturation, three separate multiple regression analyses were used. Age (continuous), gender (male, female), religiosity (continuous), and length of time living in the U.S. (continuous) were the independent variables and acculturation (VIA-American, VIA-Heritage, and VIA-Integrated) were the dependent variables. Prior to conducting the regression analyses, preliminary analyses were conducted to determine whether there were any violations of assumptions. Normal probability plots and standardized residuals were examined and no violations of assumptions for normality, linearity, or homoscedasticity were identified. Correlations were first conducted between VIA subscales and the Marlowe-Crowne Social

Desirability Scales to determine whether there was any socially desirable responding. Bivariate correlations were conducted between Marlowe-Crowne and VIA-American ($r = -.082, p = 0.360$), VIA-Heritage ($r = .020, p = 0.819$), and VIA-Integrated ($r = -.070, p = 0.433$). These non-significant correlations suggest that participants in this study are not responding in socially desirable ways.

VIA-American. A standard multiple regression model was used to assess the ability of age, gender, religiosity, and length of time in the U.S. to predict mainstream cultural orientation (VIA-American). Table 9 presents the correlations and results of the analyses. The overall multiple regression model was non-significant, $F(4, 102) = .610, p = .66$.

VIA-Heritage. Pearson correlational analyses were conducted between the predictor variables and VIA-Heritage. Table 10 presents the results of the analyses. As can be seen, religiosity was significantly correlated with VIA-Heritage, $r(126) = .25, p = 0.002$. Gender (coded 1 = female, 0 = male) was negatively correlated with VIA-Heritage and approaching significance, $r(111) = .15, p = .06$. Standard multiple regression analyses were conducted to assess the ability of age, gender, religiosity, and length of time in the U.S. to predict heritage cultural orientation (VIA-Heritage). The overall multiple regression model was significant, $R^2 = 0.11, F(4, 102) = 2.98, p = .02$. Eleven percent of the variance was accounted by the predictor variables. Religiosity was the strongest predictor of VIA-Heritage ($\beta = .24, p = .012$) in comparison to the other variables.

VIA-Integrated. Pearson correlational analyses were conducted to examine the relationship between VIA-Integrated and the potential predictors. Table 11 presents the results of

Table 9

Multiple Regression of Predictors for Vancouver Index of Acculturation American Scale

Variable	Zero-order <i>r</i>					<i>B</i>	<i>SE β</i>	<i>β</i>
	VIA- American	Gender	Age	Religiosity	Time in U.S.			
Gender	.06	-				-0.12	0.34	0.12
Age	-.02	.03	-			0.08	0.08	-0.04
Religiosity	.11	.08	.14	-		-0.37	0.02	-0.13
Time in U.S.	-.03	-.05	.64***	.15	-	0.02	0.36	0.11

Note: VIA = *Vancouver Index of Acculturation*

*** $p < .001$

Table 10

Multiple Regression of Predictors for Vancouver Index of Acculturation Heritage Scale

Variable	Zero-order <i>r</i>					<i>B</i>	<i>SE β</i>	<i>β</i>
	VIA- Heritage	Gender	Age	Religiosity	Time in U.S.			
Gender	.15	-				0.54	0.35	0.14
Age	-.08	.03	-			-0.14	0.08	-0.21
Religiosity	.25**	.08	.14	-		0.05	0.02	0.24*
Time in U.S.	.04	-.05	.64***	.15	-	0.44	0.38	0.14

Note: VIA = *Vancouver Index of Acculturation*

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

Table 11
Multiple Regression of Predictors for Vancouver Index of Acculturation Integrated Scale

Variable	Zero-order <i>r</i>					<i>B</i>	<i>SE β</i>	<i>β</i>
	VIA-Integrated	Gender	Age	Religiosity	Time in U.S.			
Gender	.09	-				2.51	3.30	0.08
Age	.004	.03	-			-0.14	0.78	-0.02
Religiosity	.16*	.08	.14	-		0.28	0.18	0.16
Time in U.S.	.01	-.05	.64***	.15	-	0.11	3.52	.004

Note: VIA = *Vancouver Index of Acculturation*

*** $p < 0.001$, * $p < 0.05$ ***

the analyses. VIA-Integrated was significantly correlated with Religiosity ($r = .16, p = 0.04$).

Standard multiple regression analyses were conducted to assess the ability of age, gender, religiosity, and length of time in the U.S. to predict integrated acculturation (VIA-Integrated).

The overall linear regression model was non-significant, $R^2 = 0.03, F(4, 102) = .827, p = .511$.

In sum, the second goal of this study was to examine how age, gender, religiosity and length of time in the U.S. explained mainstream cultural orientation, heritage cultural orientation, and integrated acculturation. Results of the study indicated that these variables significantly predicted heritage cultural orientation but not mainstream cultural orientation or integrated acculturation.

Research Question 3: *How do age, gender, religiosity, and length of time in the United States explain acculturative stress?*

A third goal of this study was to examine how age, gender, religiosity, and length of time in the U.S. explained acculturative stress (SAFE-C General Social Stress, SAFE-C Perceived Discrimination, and SAFE-C Process Oriented Stress). Preliminary analyses were conducted to determine whether there were any violations of assumptions in the regression models. Variance inflation factors (VIF) were examined in all the regression models and were less than 10. Normal probability plots and standardized residuals were examined and no violations of assumptions for normality, linearity, or homoscedasticity were identified. Multiple regression analyses were conducted to determine how age (continuous), gender (female, male), religiosity (continuous), and length of time (continuous) explained levels of acculturative stress (SAFE-C). Three separate regression analyses were conducted with the predictor variables and the SAFE-C GSS, SAFE-C POS, and SAFE-C PD scores.

General Social Stress. Pearson correlations were first conducted to examine the relationship between SAFE-C General Social Stress (GSS) and the potential predictors. Age was negatively and significantly correlated with GSS ($r = -.39, n = 112, p < .001$). GSS and religiosity were significantly negatively correlated ($r = -.20, p = .01$). Finally, length of time in the United States was also significantly negatively correlated with GSS ($r = -.028, p = .002$), indicating that the fewer years the adolescent resides in the U.S., the more stress he or she experiences. Gender was not significantly correlated with GSS, and therefore was removed from the regression model.

A hierarchical linear regression was conducted to assess the ability of age, length of time in the U.S., and religiosity to predict general social stress. After examining the correlations of the variables with GSS, age was entered in Step 1, length of time in Step 2, and the religiosity composite scale in Step 3. The regression analyses with GSS as the dependent variable showed

that age explained 13% of the variance, $F(1, 101) = 15.126, p < .001$. After length of time in the U.S. was entered in the model, the total variance explained was 14%, with an R^2 changed = .011, F change (1, 100) = 1.24, $p = .269$. After religiosity was entered, the total variance explained was 17%, with an R^2 changed = .031, F change (1, 99) = 3.646, $p = .059$. The final model was significant, $F(3, 99) = 6.83, p < .001$, suggesting that age, length of time in the U.S. and religiosity significantly predicted general social stress. Age was the strongest predictor in the model ($\beta = -.36, p < .001$) in comparison to the other predictors, length of time ($\beta = -.15, p = .269$) and religiosity ($\beta = -.176, p = .059$); however age was entered first in the ANOVA and likely shares variance with length of time.

Perceived Discrimination Stress. Correlational analyses were conducted to examine the relationship among the potential predictor variables and SAFE-C PD. Age was negatively and significantly correlated with SAFE-C PD ($r = -.24, n = 112, p = .006$). Also, there was a negative and significant correlation between SAFE-C PD and religiosity ($r = -.27, n = 112, p = 0.001$). Finally, length of time in the U.S. was negatively and significantly correlated with perceived discrimination stress, ($r = -.26, n = 112, p = .003$). Gender was not significant correlated with SAFE-C PD ($r = -.15, n = 112, p = .06$), and therefore was removed from the model.

A hierarchical linear regression was conducted to assess the ability of age, length of time in the U.S., and religiosity predicted perceived discrimination stress. After examining the correlations of the variables with PD, the variables were entered in each step based on the strength of the correlation with PD. Consequently, length of time was entered in Step 1, the religiosity composite scale in Step 2, and age in Step 3. The regression analyses with PD as the dependent variable showed that length of time explained 12.5% of the variance, $F(1, 101) = 14.432, p < .001$. After religiosity was entered in the model, the total variance explained was

18.7%, with an R^2 changed = .062, F change (1, 100) = 7.677, p = .007. After age was entered, the total variance explained was 18.8%, with an R^2 changed = .062, F change (1, 99) = .032, p = .858. The final model was significant, $F(3, 99) = 7.624$ p < .001, suggesting that length of time in the U.S., religiosity, and age significantly predicted perceived discrimination stress. Length of time in the U.S. was the strongest predictor in the model (β = -.35, p < .001) in comparison to the other predictors, age (β = -.024, p = .858) and religiosity (β = -.252, p = .007).

Process-oriented Stress. Correlational analyses were conducted to examine the relationship among the predictor variables and SAFE-C POS. Age was negatively and significantly correlated with SAFE-C POS (r = -.34, n = 112, p < .001), suggesting that the older the adolescent, the less process oriented stress they experienced. Also, religiosity was negatively and significantly correlated with SAFE-C POS, r = -.23, n = 112, p = .005. Finally, length of time in the U.S. was significantly negatively correlated with SAFE-C POS, (r = -.30, n = 111, p < .001). Gender was not significantly correlated with SAFE-C POS (r = -.16, n = 112, p = .097), and therefore was not included in the model.

A hierarchical linear regression was conducted to assess the ability of age, length of time in the U.S., and religiosity predicted process-oriented stress. After examining the strength of the correlations of the variables with POS, age was entered in Step 1, length of time in Step 2, and the religiosity composite scale in Step 3. The regression analyses with POS as the dependent variable showed that age explained 12.8% of the variance, $F(1, 101) = 14.84$, p < .001. After length of time was entered in the model, the total variance explained was 15.5%, with an R^2 changed = .026, F change (1, 100) = 3.12, p = .080. After religiosity was entered, the total variance explained was 17.4%, with an R^2 changed = .044, F change (1, 99) = .032, p = .023.

The final model was significant ($F(3, 99) = 8.149, p < .001$), suggesting that age, length of time in the U.S., and religiosity significantly predicted process-oriented stress. Age was the strongest predictor in the model ($\beta = -.358, p < .001$) in comparison to the other predictors, length of time ($\beta = -.242, p = .080$) and religiosity ($\beta = -.211, p = .023$).

In sum, the third goal of this study was to examine how age, gender, religiosity, and length of time predicted acculturation stress, including general social stress, perceived discrimination stress, and process-oriented stress. Results showed that these variables significantly predicted general social stress, supporting the research hypothesis. Similarly, the variables significantly predicted perceived discrimination stress, with length of time contributing to the most variance. The longer the adolescent lived in the United States, the less stress the adolescent experienced related to perceived discrimination. Finally, the variables significantly predicted process-oriented stress, with age as the strongest predictor in the model. The younger the adolescent, the more likely he or she experienced process-oriented stress

Research Question 4: *How are acculturation and acculturative stress related to psychological adjustment among Arab American adolescents?*

A fourth goal of this study was to determine whether acculturation and acculturative stress predicted psychological adjustment. Two separate standard multiple linear regressions were conducted to examine how VIA-American, VIA-Heritage, VIA-Integrated, and SAFE-C Total predicted YSR-Total Problems and YSR-Competence.

Total Psychological Problems. Partial correlations were also used to explore the relationship between acculturation, acculturative stress and psychological problems, while controlling for scores on the Marlowe-Crowne Social Desirability Scale. Preliminary analyses were conducted to ensure no violation of the assumptions of normality, linearity, and

homoscedasticity. There was a medium, positive, partial correlation between SAFE-C Total and YSR-Total Problems, $r = .37$, $n = 104$, $p < .001$, with high levels of acculturative stress being associated with higher levels of psychological problems. There was a non-significant, positive, partial correlation between VIA-American and YSR-Total Problems ($r = .02$, $n = 104$, $p = .821$). A significantly small, negative, partial correlation was found between VIA-Heritage and YSR-Total Problems, $r = -0.23$, $n = 104$, $p = .016$, with higher levels of heritage cultural orientation associated with lower symptoms of psychological problems. Finally, a non-significant, negative, partial correlation was found between VIA-Integrated and YSR-Total Problems, $r = -0.10$, $n = 104$, $p = .289$.

Pearson correlational analyses among the predictor variables (VIA-American, VIA-Heritage, SAFE-C Total) and the predictor variable (YSR Total Problems) were computed (see Table 12). An inspection of the zero-order correlations suggested that controlling for socially desirable responding had a very small effect on the strength of the relationship.

A hierarchical linear regression was conducted to assess the ability of acculturation and acculturative stress to predict psychological problems. After examining the strength of the correlations of the variables with YSR-Total Problems, VIA-American, VIA-Heritage, and VIA-Integrated were entered in Step 1 and SAFE-C Total was entered in Step 2. The regression analyses with Total Problems as the dependent variable showed that acculturation explained 6.4% of the variance, $F(3, 107) = 2.435$, $p = .069$. After SAFE-C was entered in the model, the total variance explained was 19.5%, with an R^2 changed = .16, F change (1, 106) = 23.165, $p < .001$. The final model was significant, $F(4, 107) = 7.657$, $p < .001$, suggesting that acculturation and acculturative stress significantly predicted psychological problems. Acculturative stress was the strongest predictor in the model ($\beta = .423$, $p < .001$) in comparison to the other predictors,

Table 12

Correlations of Predictor Variables on YSR Total Problems and YSR Total Competence

Variables	Zero-order <i>r</i>					
	YSR- Total Problems	YSR- Total Competence	VIA-Am	VIA- Her	VIA- Integrated	SAFE-C Total
VIA-Am	0.057	0.10	-			
VIA-Her	-0.21*	0.07	0.17	-		
VIA-Int	-0.05	0.15	0.76*	0.67*	-	
SAFE-C Total	0.44***	0.32***	0.24***	-0.07	0.18*	-

Note: VIA = *Vancouver Index of Acculturation*; VIA-Am = VIA American Scale, VIA-Her = VIA Heritage Scale, VIA-Int: VIA Integrated; SAFE-C = *Societal, Academic, Familial, and Environmental (SAFE) Acculturative Stress Scale: Children's Version*

*** $p < 0.001$, * $p < 0.05$

VIA-American ($\beta = -.045, p = .816$), VIA-Heritage ($\beta = -.375, p = .037$) and VIA-Integrated ($\beta = -.249, p = .349$).

Total Competence. Partial correlations were also used to explore the relationship between acculturation, acculturative stress and total competence, while controlling for scores on the Marlowe-Crowne Social Desirability Scale. Preliminary analyses were conducted to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a medium, positive, partial correlation between SAFE-C Total and YSR-Total Competence ($r = .37, n = 99, p < .001$) with higher acculturative stress associating with higher levels of overall competence. A statistically non-significant partial correlation was found between acculturation and YSR-Total Competence: VIA-American ($r = .08, n = 99, p = .42$), VIA-Heritage ($r = .18, n = 99, p = .08$), and VIA-Integrated ($r = 0.18, n = 99, p = .069$). Moreover, there was a significantly positive correlation with YSR-Total Problems ($r = .26, n = 106, p < .001$).

Pearson correlational analyses among the predictor variables (VIA-American, VIA-Heritage, SAFE-C Total) and the predictor variable (YSR Total Competence) were computed (see Table 12). An inspection of the zero-order correlations suggested that controlling for socially desirable responding had a very small effect on the strength of the relationship.

A hierarchical linear regression was conducted to assess the ability of acculturation and acculturative stress to predict overall competence. After examining the strength of the correlations of the variables with YSR-Total Problems, VIA-American, VIA-Heritage, and VIA-Integrated were entered in Step 1 and SAFE-C Total was entered in Step 2. The regression analyses with Total Competence as the dependent variable showed that acculturation explained 3.0% of the variance, $F(3, 100) = 1.027, p = .384$. After SAFE-C was entered in the model, the total variance explained was 14.8%, with an R^2 changed = .152, F change (1, 99) = 23.165, $p <$

.001. The final model was significant, $F(4, 99) = 5.49, p < .001$, suggesting that acculturation and acculturative stress significantly predicted overall competence. Acculturative stress was the strongest predictor in the model ($\beta = .406, p < .001$) in comparison to the other predictors, VIA-American ($\beta = -.050, p = .795$), VIA-Heritage ($\beta = .064, p = .731$) and VIA-Integrated ($\beta = .149, p = .576$). SAFE-C Total accounted for the most unique variance in the model ($\beta = .30, p = .002$) in comparison to the other variables.

Overall, the fourth goal of this study was to examine whether acculturation and acculturation stress significantly predicted psychological adjustment, defined as YSR-Total Problems and YSR-Total Competence. It was hypothesized that acculturation and acculturation stress would significantly predict YSR-Total Problems, where the higher acculturation and stress, the more psychological problems. Results showed that the hypothesis was supported. In contrast, it was hypothesized that higher acculturation and stress would negatively predict overall competence. The results, however, showed that higher acculturation and acculturative stress positively predicted overall competence among this sample of Arab American adolescents.

Research Question 5: *What is the prevalence of psychological problems in this sample of 11- to 18-year-old Arab American adolescents?*

A fifth goal of the study was to examine incidence rates of psychological problems among this community-based sample of Arab American adolescents. Incidence rates as measured by the YSR were analyzed by comparing the percentage of participants with clinically significant problems within the sample. Because the YSR was developed for ages 11 – 18, U.S. norms were only available for this age group. The Youth Self Report includes subscales for Competence, Somatic Complaints, Anxious/Depressed, Social Problems, Thought Problems, Attention Problems, Delinquent Rule-Breaking Behaviors, Aggressive Behaviors, Internalizing,

Externalizing, and Total Problems. Within the clinically significant sample, the percent of females and males was analyzed. Finally, differences in age (middle school, high school, and post-high school) within the clinically significant sample were compared.

Table 13 shows the percentage of at-risk and clinically significant problems within the sample of 11- to 18-year-olds by gender ($n = 94$). Results showed that 6% of females and 7% of males reported that they experiencing clinically significant Total Problems. Among those who reported clinically significant problems, 4% of females and 5% of males experienced clinically significant Internalizing Problems and 2% of females and 7% of males experienced clinically significant Externalizing Problems. In terms of participants at-risk for psychological problems, 20% of males and 8% of females in this study were at-risk for Internalizing Problems. Similarly, 11% of males and 12% of females were at-risk for Externalizing Problems.

The majority of males who had clinically significant problems reported that they experienced Somatic Complaints (9%) and Rule-Breaking Behaviors (9%), followed by Thought Problems (7%). Approximately 25% of males in this study were at-risk for Anxious/Depressed and Aggressive Behavior. Another 16% were at-risk for Social Problems and Withdrawn/Depressed.

Among the females in this study, 6% reported clinically significant symptoms for Anxious/Depressed and Social Problems. Another 4% reported clinically significant symptoms for Withdrawn/Depressed, Thought Problems, and Aggressive Behavior. In terms of at-risk symptoms, most females in this study (16%) reported being at-risk for Somatic Complaints, Attention Problems and Aggressive Behavior.

Research Question 6. *Do adolescent and parents have similar levels of acculturation (heritage cultural orientation, mainstream cultural orientation, and integrated acculturation)?*

The sixth goal of this study was to examine whether a relationship existed between adolescent and parent acculturation. To determine whether generational discrepancies exist between parents' and adolescents' acculturation, parents and their children were placed into dyads. A dyad was included if both a parent and adolescent completed at least one of the VIA subscales. Some parents who participated in the study had multiple children who also

Table 13

Percent of At-risk and Clinically Significant Symptoms by Gender using the Youth Self-Report

Symptom	Gender			
	Female <i>n</i> = 50		Male <i>n</i> = 44	
	At Risk	Clinically Significant	At Risk	Clinically Significant
Anxious/Depressed	6	6	25	5
Withdrawn/Depressed	8	4	16	5
Somatic Complaints	16	0	14	9
Social Problems	6	6	16	2
Thought Problems	6	4	14	7
Attention Problems	16	2	9	2
Rule-breaking Behavior	6	2	14	9
Aggressive Behavior	16	4	25	2
Internalizing	8	4	20	5
Externalizing	12	2	11	7
Total Problems	6	6	18	7

Note: At-risk is defined as a T-score of 1.5 standard deviations below the mean and clinically significant symptoms are those 2 standard deviations below the mean

participated in the study, and therefore some dyads had the same parent, but different child. A total of 119 dyads were included in the study. Pearson correlational analyses were then conducted for acculturation within dyads. The adolescent VIA-Heritage, VIA-American, and VIA-Integrated were included as independent variables while the parent VIA-Heritage, VIA-American, and VIA-Integrated were included as dependent variables. Preliminary analyses were conducted and no violations of assumptions were found. Analyses of the dyadic data were conducted to determine whether there is non-independence of the data (Alferes & Kenny, 2009). First, a Pearson's correlation was computed for each dyad. A non-significant correlation was found for VIA-American, $r = .12$, $n = 117$, $p = .19$. A positive, significant Pearson's correlation was found for VIA-Heritage, $r = .21$, $n = 115$, $p = .03$. Finally, a non-significant Pearson's correlation was found for VIA-Integrated, $r = .08$, $n = 113$, $p = .41$.

A paired-samples t-test using dyadic data was conducted to evaluate whether there was a significant difference between parents and adolescents on acculturation. There was a statistically significant difference between parents ($M = 5.28$, $SD = 2.10$) and adolescents ($M = 5.82$, $SD = 1.72$) on VIA-American, $t(116) = -2.71$, $p = .008$ (two-tailed). The eta squared statistic (0.06) indicated a moderate effect size. A paired-samples t-test was conducted between parents ($M = 7.26$, $SD = 1.93$) and adolescents ($M = 6.93$, $SD = 1.93$) on VIA-Heritage. No significant difference was found $t(114) = 1.46$, $p = .148$ (two-tailed). Finally, a paired-samples t-test was conducted between parents ($M = 37.37$, $SD = 17.76$) and adolescents ($M = 41.40$, $SD = 16.59$) on VIA-Integrated. No significant difference was found, $t(112) = -1.83$, $p = .07$ (two-tailed).

Overall, the sixth goal of this study was to determine whether there were significant differences between parents and their children on mainstream cultural orientation, heritage cultural orientation, and integrated acculturation. Results showed that there was a significant

difference between parents and adolescents on mainstream cultural orientation but not for heritage cultural orientation or integrated acculturation.

Research Question 7: *If generational discrepancies in acculturation exist, how is it related to adolescent psychological problems?*

The final goal of the study was to examine generational discrepancy in acculturation. To determine whether generational discrepancy in acculturation predicted adolescent psychological problems, parent and adolescent acculturation scores in each dyad were standardized and cross-classified as first suggested by De Los Reyes and Kazdin (2004) and later tested using the VIA by Kim and colleagues (2009). First, within the dyadic data, each respondent's score from the mainstream cultural orientation scale (VIA-American) and the heritage cultural orientation scale (VIA-Heritage) was standardized into z-scores. Next, based on Kim and colleagues (2009) method for categorizing respondents, each respondent's acculturation score was categorized as *low*, *medium*, or *high* in both the mainstream and heritage cultural orientations of the VIA. If the respondent's standardized score was in the highest third, the score was designated as *high*, if the respondent's score was in the middle third, the score was designated *medium*, and finally, if the respondent's score was in the lowest third, the score was designated *low*. Each adolescent's acculturation z-score was subtracted from his/her parent's score to create a discrepancy z-score. Then, this discrepancy score was dummy coded: low discrepancy (comparison variable), medium discrepancy (MD = 1, other = 0), and high discrepancy (HD = 1, other = 0). In contrast to using raw score differences, standardizing the respondents' score to create an informant response discrepancy is more appropriate because the discrepancy score is correlated equally with each respondent (De Los Reyes & Kazdin, 2004).

Then, each adolescent and parent was cross-classified to determine generational discrepancy (*low*, *moderate*, or *high* discrepancy). When there was a similar orientation score between the parent and adolescent, the discrepancy score was categorized as *low* (e.g., low parent-low adolescent). If there was a large amount of discrepancy between the parent and adolescent, the discrepancy score was categorized as *high* (e.g., low parent-high adolescent). Finally, if there was a moderate amount of discrepancy, then the score was categorized as *moderate* (e.g., low parent-medium adolescent).

To determine whether generational discrepancy predicted adolescent psychological problems, a multiple linear regression was conducted. Generational discrepancy was the independent variable (low, moderate, high) and the dependent variable was the Total Problem score of the YSR.

Figure 1
Generational Discrepancy Category Based on Parent and Adolescent Cross-classification on each Acculturation Score

Generational Discrepancy Category		
Low	Moderate	High
Low Parent Low Adolescent <i>n</i> = 14	Low Parent Med Adolescent <i>n</i> = 10	Low Parent High Adolescent <i>n</i> = 14
High Parent High Adolescent <i>n</i> = 15	Med Parent High Adolescent <i>n</i> = 15	High Parent Low Adolescent <i>n</i> = 12
Med Parent Med Adolescent <i>n</i> = 10	High Parent Med Adolescent <i>n</i> = 114	-

Linear regression analyses were then conducted to determine whether acculturation generational discrepancy (low, medium, high) predicted the adolescent's psychological problems on the YSR-Total Problems scale. First, linear regression analyses were conducted for VIA-American, in which HD and MD dummy variables were entered together. Results showed that there that generational discrepancy on VIA-American did not predict YSR-Total Problems, $R^2 = 0.025$, $F(2, 103) = 1.335$, $p = .268$. Then, linear regression analyses were conducted for VIA-Heritage, in which HD and MD dummy variables were entered together. Results showed that the overall model was significant using a 90% confidence interval, $R^2 = 0.051$, $F(2, 103) = 2.772$, $p = .067$. Compared to those dyads with low VIA heritage discrepancy, on average, dyads with high VIA heritage discrepancy are more like to predict higher Child YSR Total problems, $B = 6.417$, $t = 2.30$, $df = 2$, $p = .023$. Finally, linear regression analyses were conducted for VIA-Integrated, in which HD and MD dummy variables were entered together. Results showed that the overall model was not significant, $R^2 = 0.03$, $F(2, 103) = 1.573$, $p = .212$.

CHAPTER V

Discussion

Demographic Factors Related to Acculturation

The first focus of this research was to examine how acculturation varied by different demographic factors: school level, gender, religiosity, and length of time living in the United States.

School level. Adolescence is characterized by different stages of identity (Erikson, 1968; Marcia, 1980) and for ethnic minority adolescents, the process of acculturation may differ based on the adolescent's developmental stage and the degree to which the adolescent identifies with his or her ethnic group (Phinney, 1989). Moreover, the ecological context may have an influence on the adolescent's development (Bronfenbrenner, 2005). Adolescents may interact with different individuals depending on the context. In middle school, for example, adolescents may primarily interact with peers in their school while adolescents who have graduated or who are in college may interact with a variety of individuals from different cultural and linguistic backgrounds through work or college. The context in which the adolescent develops may influence with whom the adolescent interacts.

The current study examined whether heritage cultural orientation, mainstream cultural orientation and integrated acculturation varied by school level. It was hypothesized that post-high school adolescents would be more likely to have high mainstream cultural orientation and high heritage cultural orientation compared to middle school and high school adolescents. In addition, post-high school adolescents would have high integrated acculturation compared to middle school and high school adolescents.

Results suggested that there were no significant differences across the school levels on mainstream cultural orientation, heritage cultural orientation, or integrated acculturation. It was hypothesized that post-high school adolescents would be more likely to report higher mainstream cultural orientation compared to middle school and high school adolescents. Results of this study, however, suggest that on average, adolescents across the different school levels reported similar levels of mainstream cultural orientation. Perhaps for an ethnic minority group such as Arab Americans, the degree to which an adolescent identifies with the mainstream culture is relatively the same across adolescence. While the ecological context changes across adolescence, Arab American adolescents in this sample report similar levels of mainstream cultural orientation. The extent to which Arab American adolescents are involved in American culture may be similar whether they are in middle school or have graduated from high school.

Similarly, there were no significant differences by school level on heritage cultural orientation. It was hypothesized that post-high school adolescents who have higher heritage cultural orientation compared to middle school and high school adolescents. Results of the study do not support this hypothesis. Rather, Arab American adolescents in middle school, high school, and post-high school report adhering to their Arab heritage at similar levels. While it was hypothesized that because of ecological differences in middle school, high school, and post-high school, adolescents would be socialized in different contexts and with different peer groups,, these differences were not observed in the current study.

In addition to the relative stability of reported mainstream cultural orientation across school level, results suggest that there was also similarity across school level on integrated acculturation. It was hypothesized that late adolescents/young adults would have higher integrated acculturation compared to middle school and high school adolescents because they

maintain their heritage culture as well as participate in the mainstream American culture. However, the results of the study suggest that, in fact, post-high school adolescents have relatively similar integrated acculturation compared to middle school and high school adolescents. As Berry (2009) describes, acculturation is not simply accumulating the norms, behaviors and values of a new culture; rather, acculturation is a process of negotiating the new culture while at the time, maintaining the practices of the heritage culture. To some degree, Arab Americans in this study negotiate between their two cultures in similar ways across adolescence. In other words, the desire to keep those salient aspects of their Arab culture as well as aspects of American culture does not significantly vary by age. These results were unexpected because it was predicted that post-high school adolescents would have more interactions with individuals from different ethnic groups and continue to maintain their heritage cultural traditions, resulting in higher integrated acculturation. The results, however, suggest that Arab American adolescents across school levels also have similar levels of integrated acculturation.

One possibility for the lack of significant differences across school levels on all three cultural orientations was the small sample size. Only 85 out of the 135 participants in this study completed information related to their schooling. As a result, there were few participants in each of the school levels. Although there could be differences across school levels, these differences may not have been observed due to the low statistical power. Furthermore, there may be other contextual variables that influence the adolescents' development beyond school level alone. Arab Americans often live among extended family and/or within a strong ethnic enclave that may influence the adolescent's development. School level may not adequately capture the cultural influences of the acculturative process during adolescent development.

Gender. Gender roles and expectations are an integral aspect of cultural practices, particularly in Arab culture (Gregg, 2005). Consequently, one of the goals of this study was to examine whether there were differences between male and female Arab American adolescents on acculturation. Results of the study found that, contrary to the hypothesis, there were no significant differences between female and male adolescents on mainstream, heritage, or integrated acculturation. On average, boys and girls did not report significantly different orientations towards Arab or mainstream American cultures.

This finding that no significant differences on acculturation between Arab American boys and girls were unexpected largely because the research literature on Arab Americans highlights the importance of gender roles and expectations in the acculturative process. Amer and Hovey (2007), for example, found that adult Arab American females reported higher Arab heritage orientation and practices compared to adult males. They suggest that Arab American women may have a role in “preserving and transmitting cultural and religious traditions” (p. 343). In a qualitative study of first-generation Jordanian American women, continuing the Arab ethnic traditions was an important function of being a mother, particularly because the women felt that their children were exposed to different value systems in the schools (Hattar-Pollara & Meleis, 1995). In other words, the responsibility and expectation for Arab American woman may be to maintain Arab heritage cultural traditions and practices, and then pass on those traditions to their children. Furthermore, in another study of Iranian participants, Ghaffarian (1998) found that men experienced greater acculturative influences compared to women. Women were more culturally resistant in that they were less likely to speak the host culture language and have less social affiliation with the host culture. As a result, these studies suggest that women of Arab descent are more likely to have strong heritage cultural orientations compared to men. Arab women and

men experience acculturation differently because of differences in gender roles and expectations within Arab culture.

Consequently, the findings of the current study were surprising in light of the previous research. No known research studies have been conducted on acculturation among Arab American youth, making it difficult to conclusively interpret these findings. Nonetheless, the results of the study spark additional questions about the social context of Arab American adolescents. Gregg (2005) argues that adolescence is a period of development that is much shorter in Arab culture, and issues of sexuality, the social self, and religion are particularly relevant to this culture. These issues were not explicitly examined in the current study, and further investigation of how these issues intersect for Arab American adolescents may provide additional information about differences between girls and boys during the acculturative process.

Religiosity. Religiosity is a multidimensional construct that includes cognitive, behavioral and emotional components (Cornwall et al., 1986). Religion has been shown to be related to ethnic and cultural practices, particularly among Arab American communities (Ajrouch, 1999). The goal of the current study was to examine whether acculturation varied by Arab American adolescents' self-reported religiosity.

It was hypothesized that Arab American adolescents who reported high religiosity would be more likely to report higher heritage cultural orientation and lower mainstream cultural orientation compared to those adolescents who are low or moderately religious. Results of the study found that although there were no significant differences between groups on mainstream cultural orientation, there were significant differences on heritage cultural orientation. Specifically, adolescents who reported high religiosity also reported higher heritage cultural orientation compared to those who reported low religiosity. Moreover, moderately religious

adolescents were also more likely to report higher heritage cultural orientation compared to those who were less religious. In other words, adolescents in the low religiosity group did not adhere to their Arab heritage cultural values and traditions to the extent of those in the moderate or high religiosity groups.

These results suggest that among primarily Muslim Arab Americans, religiosity is an important aspect of their heritage cultural orientation. Research has suggested that religious practices often coincide with cultural traditions and customs, particularly among Arab communities (Haddad, 1994). Perhaps adolescents who participate moderately in religious practices may endorse higher heritage cultural orientation compared to adolescents who participate less frequently because their religious practices may be inherently connected with their heritage culture. For example, Muslim Arab American adolescents may participate in religious services in a local mosque where many local community members gather. Mosques are often places in which members of the community gather to pray, conduct charitable work, and where some children attend Islamic classes. Furthermore, mosques are places of worship in which Americans maintain the Muslim values and customs (Bagby, 2009). Adolescents who participate in religious services may continue to maintain the core values and customs associated with their ethnic heritage. For adolescents who reported moderate religiosity may have a closer tie with their heritage culture compared to those who report less religiosity. Praying in private or saying grace or *bismallah* may be related to the cultural practices at home. In turn, Arab American adolescents may associate these religious practices with their heritage cultural orientation.

Results of the study also revealed significant differences in integrated acculturation based on level of religiosity. Adolescents who reported being highly religious were more likely to

report higher integrated acculturation compared to those who reported being less religious. Furthermore, adolescents who reported being moderately religious were also more likely to report higher integrated acculturation compared to those were less religious. These results suggest that Muslim Arab American adolescents who reported being highly religious also reported strongly identifying with both their Arab and American cultures. One possibility is that adolescents who identify themselves as bicultural continue to maintain the private practices of their faith, participating in organized religion, and consider themselves to be religious or spiritual. Given the close tie between Islam and Arab culture, these adolescents may continue to practice their religion as a way to continue to identify with their Arab heritage. At the same time, they also participate in the activities and pursue the values of the mainstream American.

Length of time in the U.S. Previous research has suggested that length of time living in the host culture is closely associated with acculturation (Zlobina et al., 2006). Consequently, it was hypothesized that adolescents who have lived longer in the United States would be more likely to report higher mainstream cultural orientation compared to those who lived in the U.S. for a shorter amount of time. Conversely, it was hypothesized that adolescents who have lived in the U.S. for a shorter amount of time would report higher heritage cultural orientation. Results of the current study found that there were no significant differences in length of time living in the United States on acculturation. These results are surprising in the light of previous research; it is important to note, however, that in this study, length of time was calculated using the adolescent's age and age of arrival in the United States. It is difficult to compare an eleven-year-old who arrived in the United States at age 2 with a twenty-one-year old who arrived at age 12. Although both have lived in the United States for the same period of time, they arrived at different developmental stages of their lives. It is easier to compare adults in terms of length of

time in a country because, by definition, they have lived longer and length of time is less confounded. As a result, much of the acculturation research uses adult samples, and findings show that length of time in a country is correlated with more assimilation to the host culture.

Demographic Factors Predicting Acculturation

Another goal of this study was to examine whether age, gender, religiosity, and length of time in the U.S. predicted acculturation among Arab American adolescents. Overall, results of the current study showed that together, age, gender, religiosity, and length of time, significantly predicted heritage cultural orientation but not mainstream or integrated acculturation.

Heritage cultural orientation. Results of the current study found that together, age, gender, religiosity and length of time in the United States significantly predicted heritage cultural orientation. Religiosity had the most unique influence in the model, which was unexpected given that previous research with Arab Americans, (e.g., Faragallah et al., 1997) and other ethnic groups (e.g., Zlobina et al., 2006) have suggested that length of time in the United States was the strongest predictor of acculturation. It may be that for adolescents, the number of years in the United States did not significantly predict Arab cultural orientation because their family and community continuously teach them those traditions and values regardless of the amount of time they have lived in the United States. In the current study, participants were recruited within a community that had a large proportion of Arab Americans. Adolescents are enculturated within a cultural context that reinforces those Arab values and traditions. As a result, children may be learning those customs and identifying with their Arab heritage throughout their adolescent years.

While length of time in the United States did not predict heritage cultural orientation, results of the study suggested that adolescents' religiosity, as defined by their public and private

practices, significantly predicted heritage cultural orientation. Adolescents who reported higher levels of religious behaviors were more likely to identify with their heritage culture. It may be that Arab American adolescents' heritage culture is represented through their faith and religious practices. A previous study with Muslim young adult participants (mean age 18.3) in Belgium examined whether personal faith and involvement in religious practice was related to acculturation and identity (Saroglou & Mathijssen, 2007). Results of the study found a positive association between intensity of faith and religious practices (i.e., personal investment in their religion) and cultural attachment (i.e., cultural orientation) towards their culture of origin. The authors hypothesized that intrinsic religiousness, which is characterized by an individual's belief in the importance of God and religion in their life as well as importance of their religion in their values, emotions, and personal experience, is an important aspect of Belgian Muslim young adults. Furthermore, in another recent study with a similar population, Friedman and Saroglou (2010) examined religiosity and psychological acculturation and found that intrinsic religiosity was associated with reduced acculturation to the host culture. They suggest that this negative association occurs indirectly through perceived cultural distance between one's heritage culture and the host culture, particularly for individuals from stigmatized religions, such as Islam. In other words, the more a person of Muslim faith perceives a large cultural distance between his heritage culture and the host culture, the more likely he will not identify with the host culture.

The current study extends these findings for Arab American adolescents. Perhaps the private aspects of their religion significantly predicted their orientation towards their Arab culture because it provides the adolescent with a feeling of security without undermining their ethnic identity. Given the large proportion of Muslim adolescents in the study and Islam's stigmatization in the United States, adolescents may be adhering to their religious convictions

more strongly because it provides a sense of security. This feeling of security may be particularly relevant for this sample of Arab American adolescents who live in a community with primarily Arab Americans who are Muslim. This enclave may provide opportunities to reinforce religious behaviors, such as being involved in the local mosque or doing charity work.

Furthermore, the cultural influence on religiousness may have more to do with social and community aspects rather than the adolescent spiritual development. As adolescents, their religiosity and spirituality may be based on behaviors (e.g., praying) rather than an intrinsic sense of faith in God. They may be practicing their religion as their parents practice, but may not necessarily be striving to make meaning of their lives from their faith. In other words, developmentally, adolescents may be behaving, but not necessarily thinking, religiously. In sum, the sense of community among an ethnic minority group, the association of the culture and religious practices, as well as the developmental stage of adolescence may explain why Arab American adolescents with high religiosity may be more likely to have higher orientation towards their Arab culture.

Mainstream cultural orientation. In contrast, age, gender, religiosity and length of time in the United States did not significantly predict mainstream cultural orientation among Arab American adolescents. While these factors predicted adolescents' maintenance of their heritage culture, these factors did not play a significant role in predicting adolescents' participation in American mainstream culture. Moreover, no significant correlations were found between the predictor variables and mainstream cultural orientation. In particular, length of time in the United States was not significantly correlated with adoption of American identity and values. This result is not consistent with previous studies that have shown that, among Arab Americans, there is a

relationship between number of years they have lived in the United States and adoption of American identity (Ajrouch, 2000; Amer, 2005).

Integrated acculturation. In regards to integrated acculturation, age, gender, religiosity and length of time did not significantly predict integrated acculturation. However, results suggested a weak but significant correlation between religiosity and integrated acculturation. As Arab American adolescents report higher religiosity, they also endorsed higher integrated acculturation. Integrated acculturation is characterized by an individual's desire to maintain those salient parts of their heritage culture and adopting those salient parts of the host culture (Berry, 2003). For Arab American adolescents, practicing their religion may be important for not only identifying with their heritage culture, but also for identifying with *both* their mainstream and heritage cultures. It may be that their faith and religious practices provides a refuge from the views from the majority culture. As adolescents identify with their mainstream and heritage cultures, they continue to preserve their faith and religious practices. Arab American adolescents who identify with both cultures are not letting go of their religious faith; rather, they are maintaining their sense of religiousness and spirituality in the context of *both* their American and Arab culture.

The results of the current study highlight an important consideration, and perhaps concern, in acculturation research. The construct of acculturation is defined in multiple ways across cross-cultural psychological research, such as the debate in the field between acculturation as second culture acquisition (e.g., Rudmin, 2009) and acculturation as a complex negotiation of cultures (e.g., Berry, 1997). Acculturation, defined in this study as the degree to which individuals experience cultural maintenance of their heritage culture in relation to their contact with and participation in the host culture, suggests a bidimensional construct. Indeed, the

measure used in this study, the Vancouver Index of Acculturation, accounts for this definition. Consequently, the results in the study may suggest that perhaps it is not acculturation that is important in accounting for psychological adjustment, but rather, perhaps cultural identity. More specifically, religiosity, as a central dimension of identity may influence adjustment in this sample of Arab American adolescents. Cultural identity differs from personal identity in that it incorporates the cultural practices, personal response to one's ethnic group and how one interacts with that groups (Schwartz, Zamboanga, & Weisskirch, 2008). For Arab Americans, religiosity intersects with cultural identity; therefore, their cultural practices may be linked with their religious beliefs and their interactions with their ethnic group. It may be that acculturation as a process of negotiation between cultural groups (e.g., American and Arab groups) is less important than the identification, or orientation, with that cultural group. An Arab American adolescent's psychological adjustment may not be related to their ability to negotiate multiple cultures but instead may be related to their cultural identity with either or both Arab and American cultural groups.

Demographic Factors Predicting Acculturative Stress

Acculturative stress can occur during the process of acculturation and is a way to understand how the interaction between cultures affects an individual psychologically (Berry & Annis, 1974). Therefore, the third goal of this study was to examine how age, gender, religiosity, and length of time predicted acculturative stress.

The current study found that the more Arab American adolescents endorse religiosity, the less acculturative stress they experienced. One possible explanation is that being a member of a religious community, perceiving support from God, and practicing their religion provide a buffer from the stress of acculturation. Being a member of the Muslim faith entails both faith-based

practices, such as prayers, as well as the social-based practices, such as working with charitable organization or gathering of the community for celebrations. Islam creates a bond across the members of the community and is an important support system for those members. It may be that this social support system is a protective factor for acculturative stress. Indeed, previous research studies examining the relationship between religiosity and stress among non-immigrant groups have shown that more religious individuals are less likely to experience overall stress or psychological problems (Hackney & Sanders, 2003). The social support, community resources, and experience of praying to a higher power may provide a way for individuals to cope with life stressors.

Another possible explanation is that Arab American adolescents who experience higher acculturative stress actively seek more opportunities to practice their religion and more actively follow their faith. Adolescents who are experiencing a great deal of stress may more actively engage in religious practices, hold to their religious convictions, and participate in organized religion because their faith may provide a refuge from these stressors. This greater involvement in their religion may, in turn, reduce their acculturative stress.

General social stress. Results of the current study showed that age, religiosity, and length of time in the United States significantly predicted general social stress. Age contributed to the most variance in predicting social stress, suggesting that as children develop across adolescence, the less likely they would experience general social stress. Length of time in the United States was hypothesized to predict general social stress, however, there is a potential that there was some confound because of the high correlation between age and length of time. Age was entered into the analyses first, resulting in age accounting for the most variance.

One possible explanation is that as the individual undergoes the normal process of adolescent development, the better he or she is able to cope with acculturative stress. Berry (2006) suggests that when an individual encounters multiple societies or cultures, the individual's ability to appraise a problem and maintain cognitive control is important in influencing whether he or she experiences acculturative stress. Older adolescents may have more opportunities to develop and practice their problem-solving skills and have a broader, more abstract, understanding of the world. They may be able to recognize when they are experiencing a problem and have the cognitive capacity, as well as the required skills, to appraise the problem and determine the appropriate way to solve the problem.

Furthermore, problem appraisal and coping require a strengthening of emotional regulation. Emotional regulation is characterized by both understanding emotions (i.e., emotional intelligence) as well as emotional responding (Koole, 2009). Across adolescence, children continue to develop their emotional regulation skills when encountering new problems. For ethnic minority and/or immigrant children, these skills may be even more important. As they develop, they may be able to regulate their emotions in more efficient and effective ways, which in turn, leads to better coping strategies and decreased stress.

Finally, adolescence is also characterized by the increasing importance of peer groups which may provide a protective factor for experiencing general social stress associated with acculturation. As a child progresses through adolescence and begin to form their own identity, they also develop their identity in the context of their peer social group (Brown & Lohr, 1987). These peer social groups become increasingly important across adolescence. Adolescents of Arab descent in this study may experience general social stress, but as they develop more social groups and have the support system in place, their stress may decrease across time.

Perceived discrimination stress. In addition to general social stress, another component of acculturative stress was stress associated with how individuals perceive that they are being discriminated against because of their ethnic group. This study found that age, religiosity and length of time in the United States significantly predicted stress related to perceived discrimination. Specifically, length of time in the U.S. most strongly predicted perceived discrimination stress, where the longer the adolescent lived in the U.S., the lower the perceived discrimination stress. It may be that the longer the adolescent has lived in the mainstream culture, the more the adolescents become comfortable in that culture, and the less likely they experience stress related to perceived discrimination. Adolescents may develop a stronger peer group that includes both Arab and non-Arab peers, which then reduces the likelihood that they perceive that others are discriminating against their ethnic group.

Religiosity also appears to have an important function in buffering the effects of stress associated with acculturation. Similar to the previous findings in this study, social support derived from the surrounding Muslim community may be a critical protective factor that reduces the likelihood that adolescents experience stress related to perceived discrimination. This may be particularly important in a primarily Muslim community. In a study with Arab adults, religious affiliation (Muslim or Christian) was the strongest predictor of perceived discrimination (Awad, 2010). Muslim adults were more likely to expect to be discriminated against compared to Christian adults. Being Muslim in the United States may be an additional stressor for many Americans who follow the Islamic faith. For Muslim Arab American adolescents in this study, the experience of stress associated with perceived discrimination may be buffered by their sense of religiosity and spirituality. It may be that adolescents are not as aware of, or sensitive to, the

negative portrayals of their ethnic and religious group, and do not experience stress related to perceived discrimination as compared to adults.

Furthermore, the extent to which religiosity predicts acculturative stress may be related to the adolescent's ecological context. Arab American adolescents are commonly surrounded by their immediate and/or extended family. Developing independence and a stronger sense of identity are important developmental markers during the period of adolescence (Erikson, 1968). For adolescents from immigrant families, however, their self-construal may be developed within the context of their family, and their beliefs, behaviors, and goals may be contingent upon their sense of obligation to the family (Markus & Kitayama, 1991). An adolescent's sense of religiosity, therefore, may be derived directly from their own family's religiosity. It may not be until they are fully independent adults that they choose their religious path and determine the extent of their religiosity.

Process-oriented stress. Age, religiosity and length of time in the U.S. were also found to predict process-oriented stress. Age was the strongest predictor of process-oriented stress, suggesting that the older the adolescent, the less stress he or she experienced during the process of acculturation. Like general social stress, it may be that as an individual develops through adolescence, they continue to develop their problem-solving skills and are able to cope with the stressors associated with the process of acculturation. As adolescents develop, they may develop close relationships with their peers, which provide support to cope with stress related to people's perceptions of them or the difficulty with being away from their home country. Younger adolescents have rely on their family to provide them strategies to cope with acculturative stress while older adolescents have developed their skills as well as have a broader network of social support.

Acculturation, Acculturative Stress and Psychological Adjustment

A fourth goal of the study was to examine whether acculturation and acculturative stress predicted psychological adjustment among Arab American adolescents. Psychological adjustment is characterized by both psychological problems and overall competence.

Psychological problems. First, the study examined whether acculturation and acculturative stress significantly predicted psychological problems. It was hypothesized that adolescents who reported higher integrated acculturation would experience significantly fewer symptoms of psychological disorders. Furthermore, it was hypothesized that adolescents with increased acculturative stress would predict increased symptoms of psychological disorders. Results of the study found that together, acculturation and acculturative stress significantly predicted psychological problems, accounting for approximately 24% of the variance. These results align with the previous research that shows there is an association between acculturation, acculturative stress and psychological problems across a variety of ethnic minority and/or immigrant groups (Berry, 1997; Kovacev & Shute, 2004; Lopez et al., 2002).

Acculturative stress had the most influence in predicting psychological problems. Acculturative stress is the behavioral response that results from intercultural contact and has been shown to lead to psychological problems such as depression and anxiety (Berry, 1997; Ghaffarian, 1998; Kovacev & Shute, 2004). Findings from the current study extend these previous research studies to Arab American adolescents. Adolescents who undergo the process of acculturation may experience additional family, societal, and community stressors (Berry & Annis, 1974) which, in turn, may lead to an increase in psychological problems. Conversely, adolescents who have fewer concerns about grades, being teased by peers, money, and family

issues are less likely to experience psychological problems such as depression, anxiety, or psychosomatic symptoms.

Results of the current study also suggest that heritage cultural orientation had a small negative correlation with psychological problems. Arab American adolescents who endorsed higher acculturation to their Arab heritage were less likely to report psychological problems. Immigrant or ethnic minority groups who maintain their cultural traditions and values may experience fewer psychological problems such as depression because they are able to identify with, and feel a part of, their ethnic community. For example, previous research with Muslim college students found that students who maintained a connection with their Muslim heritage culture experienced fewer depressive symptoms (Asvat & Malcarne, 2008). Likewise, it may be that Arab American adolescents who maintain their heritage cultural traditions and practices are able to keep a closer connection with, and obtain support from, their Arab ethnic community. This connection and support, in turn, may provide a buffer to stressors and reduces the likelihood for the manifestation of a psychological disorder.

One of the primary hypotheses of the study was that higher integrated acculturation would significantly predict fewer psychological problems. Berry and colleagues (2006) have suggested that integrated acculturation, in which an individual maintains his or her heritage culture while simultaneously adapting to the new host culture, is less likely to experience symptoms of depression. They purport that individuals who uphold multiple aspects of their cultural identity are better able to cope during the process of acculturation. Others (e.g., Rudmin, 2006; Rudmin & Ahamadzadeh, 2001), however, have argued that their previous research lacked validity. Indeed, results of the current study do not support the hypothesis that integrated acculturation predicted fewer psychological problems. In fact, results suggest that it is the

adolescent's maintenance of their *heritage culture* that significantly predicts fewer psychological problems. It may be that maintaining their heritage culture and having the support of their peers and family within a traditional Arab environment provides a safeguard to experiencing psychological problems. It is important to remember however, that this sample of adolescents were part of a large community of Muslim Arab Americans, a unique context that might explain the adaptive role of maintaining the heritage culture.

Overall competence. The current study also examined whether acculturation and acculturative stress predicted overall competence. The previous research literature has largely focused on the negative outcomes of acculturation (i.e., psychological disorders). As a result, this study extends the current research by examining how acculturation and acculturative stress are related to positive outcomes, such as an adolescent's ability to make and maintain friendships, involvement in organizations and teams, and performance in school.

It was hypothesized that integrated acculturation and lower acculturative stress would predict overall competence. Results of the study showed that acculturation and acculturative stress predicted Arab American adolescents' overall competence. Specifically, adolescents who reported higher acculturative stress were more likely to also report higher competence. This unexpected positive relationship between social stress and overall competence may be because overall competence includes participation in activities (e.g., hobbies, organizations and chores) in addition to social competence (e.g., number of close friends, getting along with others). Perhaps as adolescents become more involved in activities and develop social competence, they are also more likely to experience increased stress related to their relationships with peers, family, and school. Adolescent development is characterized by increased egocentricity (Elkind, 1967) and the increased importance of peer groups (Erikson, 1968); consequently, as Arab

American adolescents develop relationships with peers and become involved in activities in and out of school, they may also have a tendency to experience additional stress related to their social environment.

Another finding in the current study was a significant positive correlation between heritage cultural orientation and overall competence. Arab American adolescents who reported higher orientation towards their heritage culture were also more likely to report higher total competence scores. In other words, adolescents who reported higher heritage cultural orientation were also more likely to report higher grades, more involvement in activities, and better relationships with peers and siblings. Research studies with other ethnic groups have found that integrated acculturation or biculturalism is associated with better academic achievement and social competence (Cauce et al., 1982; Feliciano, 2001). The current research, however, found that integrated acculturation did not significantly predict social competence; rather, for Arab American adolescents in this sample, identifying with their heritage culture is more important in predicting social competence. It may be that identifying with their heritage culture and being connected with their Arab ethnic community through peers and family provides a great deal of social support during a potentially stressful acculturative experience. Although these findings are correlational rather than causal, connecting with their Arab heritage may be more important than connecting with their mainstream culture in developing relationships with peers and maintaining social connection.

Incidence of Psychological Problems among Arab American Adolescents

The incidence of psychological problems among Arab American adolescents has not been adequately addressed in previous research. The current study examined the incidence rates of clinically significant symptoms of psychological problems among a community-based sample

of Arab American adolescents. Approximately 6% of females and 7% of males in this sample experienced symptoms of a psychological disorder. A report by the U.S. Surgeon General (2001) indicates that approximately 20% children and adolescents between the ages of 9 and 17 experience some kind of psychological disorder. Within this sample of Arab American adolescents, there was a lower incidence of psychological problems.

In this sample of Arab American adolescents, boys and girls reported that they experienced somatic complaints, such as headaches or stomach aches. Although boys reported higher level of clinically significant symptoms, there was a high percentage of both boys and girls who were at-risk for somatic complaints. These incidence rates in this sample is in line with other research indicating that the presentation of mental health problems through psychosomatic symptoms is common among Arab cultural groups (Al-Krenawi & Graham, 2000). Arab clients who seek help for emotional distress may discuss their symptoms in physical terms, such as headaches or stomach aches. Indeed, Al-Krenawi and Graham suggest that “physical symptoms...are accepted as legitimate and morally acceptable expressions of pain” (p. 16). Psychologists, therefore, may need to be aware that physical symptoms may be indicators of affective disorders for many Arab American youth.

The current study also found that this sample of Arab American boys and girls experienced similar rates of clinically significant Internalizing Problems, but boys reported higher rates of Externalizing Problems than Internalizing Problems compared to girls. These rates are similar to previous studies conducted in the United States (Twenge & Nolen-Hoeksema, 2002) and internationally (Crijnen, Achenbach, & Verhulst, 1999; Verhulst et al., 2003) that found that boys are more likely to report higher rates of Externalizing Problems compared to girls. The current study suggests that this sample of Arab American boys were more

likely to act out, such as breaking rules and acting aggressively to others whereas girls are more likely to internalize their emotions.

There were a higher percentage of boys in this sample, however, who are at-risk or are experiencing clinically significant symptoms of Internalizing Problems and a high percentage of girls who are at-risk for Externalizing Problems. For example, nearly 25% of the boys in this sample were at-risk for anxious/depressed and another 16% were at risk for withdrawn/depressed. Similarly, there was 16% of girls who are at-risk for Attention Problems and another 16% who are at-risk for Aggressive Behavior. These incidence rates are difficult to compare due to the lack of studies examining prevalence rates of Arab American children and adolescence in the United States. However, some research that has examined Arab American adults examined found no significant differences between males and females in Depression and Post-Traumatic Stress Disorder (Abu-Ras & Abu-Bader, 2009). The study did find a significant positive correlation between Depression and age. It may be that adolescent Arab American boys experience higher rates of Internalizing Problems compared to girls, but this difference decreases with age. Then, as Arab Americans grow older, they are more likely to experience symptoms of Depression. Although this is a small sample of Arab American adolescents, the high percentage of at-risk symptoms of Internalizing Problems among boys and the high percentage of at-risk symptoms of Externalizing Problems among girls may suggest that psychologists need to do a more thorough assessment when referred Arab American adolescents.

Generational Discrepancy in Acculturation

The final goal of the study was to determine whether there was a generational discrepancy in acculturation between parents and adolescents. Generational discrepancy in acculturation among immigrant groups has been hypothesized to occur because immigrant

parents are socialized to their home country and expect that the cultural norms and values of their heritage are transmitted to, and maintained by, their children (Phinney et al., 2000). Moreover, previous research indicates that there may be differences between parents and children in levels of acculturation because children are socialized in the host culture and are more likely to learn the host language (e.g., English). Frustration and conflict between parent and child may occur because of differences in communication (Portes & Schauffler, 1994).

In the current study, it was hypothesized that there would be a significant difference between parent acculturation and adolescent acculturation. Results of the current study supported this research hypothesis. A significant difference was found between adolescents and parents on mainstream cultural orientation, with parents, on average, reporting lower identification with mainstream American culture compared to adolescents. No significant differences were found on heritage cultural orientation or integrated acculturation.

The difference in mainstream cultural orientation between parents and adolescents is likely to be related to the cultural context in which adolescents develop. Previous research studies on generational discrepancies across a variety of ethnic minority and/or immigrant groups have suggested that parents and adolescents differ in their values and beliefs (Phinney et al., 2000; Smetana, Aaron, & Campione-Barr, 2004). Immigrant children are raised within a different cultural context compared to their parents. While parents may want to teach their children their heritage cultural traditions, their children are being socialized into a new host culture through schools and peers. In this study, 76% of adolescents and 21% of parents were born in the U.S., meaning that most of the adolescents in this sample have likely been socialized to American norms to a greater extent compared to their parents. More adolescents also reported speaking both English and Arabic equally, while less than half of the parents reported speaking

English and Arabic equally. Language is an important indicator of acculturation, and given the higher number of adolescents who feel comfortable speaking both languages, adolescents may be assimilated to American culture to a greater extent compared to their parents. As a result, adolescents may be endorsing their American identity to a higher degree compared to their parents.

While there was a significant discrepancy between parents and adolescents on mainstream cultural orientation, no significant discrepancy was found on heritage cultural orientation or integrated acculturation. On average, parents and adolescents have similar levels of heritage cultural orientation. One possible explanation for this finding is that the community in which participants were sampled has a large population of people of Arab descent. Parents and their children live in a community in which Arab culture is instilled in daily life. Restaurants and grocery stores have signs written in both English and Arabic, schools have teachers, staff, and students who are of Arab descent, and billboard signs advertising products include characters wearing the *hijab*. Adolescents and adults, therefore, are being socialized in a community that is characterized primarily by their heritage culture.

Consequently, these findings may be different for adolescents and adults who are in a community with few or no other Arab Americans. On the one hand, the lack of community support in maintaining Arab traditions and norms may lead to adolescents becoming less exposed and less socialized to Arab culture. Children may begin to endorse more of their American identity and less of their Arab identity. On the other hand, perhaps parents may feel a stronger need to teach their children the traditions of their Arab culture because there is no one else in the community who can fulfill this role. Parents may fear that their children would lose this aspect of their identity, and as a result, children are taught to adhere to those traditions.

Accordingly, adolescents and parents would endorse similar levels of heritage cultural orientation.

On average, there was no significant discrepancy between adolescents and parents on heritage cultural orientation. Findings from the study show that both adolescents and parents reported relatively high heritage cultural orientation. Portes and Rumbaut (1996) would describe this similarity as “generational consonance” in which the values and cultural orientations are similar between parents and their children. In this study, general consonance may occur because as parents endorse higher heritage cultural orientation, they socialize their children in ways that promote Arab traditions and norms that resonate with their adolescents. As adolescents undergo the process of acculturation, perhaps they develop a sense of belonging with their Arab culture that, in turn, helps them cope with stress and reduces the chance of experiencing psychological problems.

Finally, this study examined whether generational discrepancy in acculturation predicted adolescent psychological problems. Results suggested that discrepancy in mainstream cultural orientation and integrated acculturation did not significantly predict adolescent psychological problems. However, results did suggest that generational discrepancy in heritage cultural orientation significantly (albeit weakly) predicted adolescent psychological problems. Specifically, in comparison to low discrepancy in heritage cultural orientation between parents and their children, high discrepancy in heritage cultural orientation significantly predicted psychological problems among adolescents.

These results may be partly explained because Arab American parents may expect their children to uphold their heritage traditions rather than adopting the norms and values of mainstream American society. Parents may continue to be involved in their local Arab

communities and have Arab friends. As a result, their traditional Arab values and practices may be more easily maintained. Adolescents, on the other hand, are likely to have developed relationships with their non-Arab peers, to have watched American television and movies, and to be involved in more mainstream American activities. This mis-match in identifying with Arab culture may consequently negatively affect the parent-child relationship and lead to increased symptoms of psychological problems. Previous research with other ethnic groups suggests that differences in acculturation may affect the quality of the parent-child relationship and lead to lower adolescent self-esteem and higher rates of adolescent social anxiety and depression (Farver, Xu, Bhadha, Narang, & Lieber, 2007; Kim et al., 2009). Similarly, Arab American adolescents may be experiencing increased stress and lower self-esteem as a result of the discrepancy in acculturation, resulting in more symptoms of psychological problems.

Limitations & Future Research

The current study is one of the few studies that specifically examine Arab American adolescents. Future research should be conducted to examine the relationship between acculturation, acculturative stress, and psychological adjustment among Arab American populations, particularly among children and adolescents. There are several ways that future research can build on this research to further elucidate the development of Arab American youth.

First, future research should more closely examine how religion influences the acculturative experiences of Arab Americans. Religiosity significantly predicted acculturation and acculturative stress in this population. However, only four brief measures of religiosity were included in the study. Religiosity is a broad and complex construct that includes various dimensions that go beyond simply a belief in a higher being. Religion incorporates behaviors and practices that have a particular relevance in Arab cultural traditions and practices. As a result, it

may be useful for future researchers to include items or questions that are specific to Muslim culture. Many measures are specific to Christian practices that may be not relevant for Muslim participants. For example, items that ask about participation or attendance in a religious organization may be important for Christian participants. However, in some mosques, only men are expected to attend while Muslim women and girls typically pray at home. Additional comprehensive measures of religiosity would be beneficial in understanding the extent to which religiosity plays a key role in acculturation among Arab Americans of diverse faiths.

Future research should also more closely examine the relationship of ethnic identity and ethnic identity development in this population. Ethnic identity and acculturation are distinct but related constructs. While acculturation broadly encompasses the norms and values of a cultural group, ethnic identity is related to how the individual views him or herself in the context of the group (Phinney, 1990). Ethnic identity could be characterized as the individual level while acculturation could be characterized at the group level. The results of the current study suggest that heritage cultural orientation, or those norms and values related to Arab culture, are important in adolescents' mental health. The study did not, however, examine the degree to which an adolescent identifies with their ethnicity and the degree to which the self is associated with their ethnic group. Future research could examine Arab American ethnic identity and its association with overall mental health.

Moreover, future research could focus on the acculturative experience and psychological adjustment on a broader population of Arab Americans. Participants in the current study were from a specific area in the Midwest with a high concentration of Arab Americans. Communities with large populations of ethnic groups may be unique in that they have additional social support compared to areas with, perhaps, one or two families. Arab Americans may undergo the process

of acculturation in different ways based on the community in which they live. For example, Arab immigrants who arrive to a community with few other Arabs may identify with their heritage and American culture differently compared to an Arab immigrant who arrives to a large community of Arabs. Future researchers should consider including participants from a variety of community settings.

Future researchers should also consider conducting larger epidemiological studies to gather more comprehensive data on prevalence rates of psychological problems among Arab American children and adolescents. The current study examined incidence rates of psychological problems from a very small and community-based sample of Arab American adolescents. Participants who were included in the study sought health care at a community health center, and therefore were not a randomly sampled group of Arab Americans. Caution needs to be used before drawing conclusions about the characteristics of psychopathology of Arab American adolescents. A larger study in which children and adolescents were randomly sampled from the population in the United States would provide a clearer idea of the prevalence rates of internalizing and externalizing disorders. Furthermore, a larger epidemiological study would allow for closer investigation of within-group characteristics. For example, a closer investigation of different religious groups (e.g., Christians, Muslims, etc.) would provide psychologists with a better understanding of mental health issues within Arab American populations. Other characteristics such as socio-economic status would also be beneficial in obtaining a comprehensive understanding of mental health problems in this community.

Finally, future researchers should consider using multi-informant methodologies when conducting studies with adolescents. The current study relied solely on adolescent self-report on questionnaires to gather information about psychological adjustment. Bias and social desirability

may have played a role in the adolescents' responses. Adolescents are able to report their thoughts and feelings, but it is important to note that the validity of the self-reports may be subject to social desirability and the characteristics of the adolescents (Brown & Zimmerman, 2004). Consequently, obtaining information related to psychological problems from the parent may have been beneficial in getting a comprehensive view of mental health in this population.

In summary, this research study examined the relationship between acculturation, acculturative stress, and psychological adjustment among Arab American adolescents. This study highlights the distinct mental health needs of this group of ethnic minority adolescents as well as the experiences of prejudice in the Arab American community. Although there is a substantial research base showing the positive association between acculturation and psychological adjustment, little is known about the acculturative experience of Arab American children and adolescents, as well as the culturally-relevant strategies to providing school psychological services to this population. This study fills a gap in the research in understanding the acculturative experiences of Arab Americans, particularly among children and adolescents.

APPENDICES

APPENDIX A

Parent Informed Consent

RESEARCH PARTICIPANT INFORMATION AND CONSENT FORM

You are being asked to participate in a research project. Researchers are required to provide a consent form to inform you about the study, to inform you that participation is voluntary, to explain risks and benefits of participation, and to allow you to make an informed decision. You should feel free to ask the researchers any questions you may have.

Study: Acculturation and Psychological Adjustment among Arab American Adolescents

Researchers: Anisa N. Goforth, Doctoral Candidate in School Psychology
Evelyn R. Oka, Ph.D., Associate Professor, School Psychology & Educational Psychology
Department of Counseling, Educational Psychology, and Special Education
Michigan State University

PURPOSE OF RESEARCH:

The United States is comprised of many different cultures. Research shows that your cultural background is important for your general well-being. There is not a lot of research, however, on the connection between culture and well-being among Arab American children and their parents. In this study, the researchers hope to learn about you and your child's feelings and thoughts about American and Arab culture. All children and adolescents ages 11-21 who identify themselves as being of Arab descent are invited to participate in this research study. You and your child's participation in the study will each take about 30 to 45 minutes.

WHAT YOU AND YOUR CHILD WILL DO:

Your child will complete a brief background information form and complete six surveys about his/her culture, religion, adjustment, and feelings and thoughts about his/her school, community, and family. One survey will include questions about adjustment, drug and alcohol use, and mental health. An adult will either read the questions to your child or your child can complete the survey by him or herself.

You will complete a brief background information form and one survey. The survey will ask you about your culture. The surveys will be completed for research purposes only, and the results will not be shared with you or your child.

POTENTIAL BENEFITS:

You or your child will not directly benefit from participation in this study, but participation may help contribute to a better understanding of children's feelings as it relates to their culture. This study, along with future research, may increase our knowledge about identity and culture, which may potentially benefit children in the future.

POTENTIAL RISKS:

This study poses minimal risk for you and your child. You will complete a survey that includes some questions that may cause you to experience some discomfort. Your child will be complete a survey that includes some questions about adjustment, drug and alcohol use, and mental health which may cause him/her to experience some discomfort or distress. You and your child may skip any question. Professionals from the Child and Adolescent Health Clinic will be available to answer questions during and after the surveys.

PRIVACY AND CONFIDENTIALITY:

The data for this project will be kept confidential to the greatest extent allowable by law. Only the researchers and Michigan State University's Human Research Protection Program will have access to the data. After you and your child complete the survey, an identification number will be assigned to the survey. The consent form with you and your child's names will be separated from the survey and filed in a locked cabinet. Completed surveys will be kept in a locked file cabinet in the Child and Adolescent Health Clinic or in a locked office of the researcher. All documents will be destroyed ten years after completion. The results of this study may be published or presented at professional meetings, but the identities of all research participants will remain anonymous. It will not be possible for readers to know who participated in the study.

As in all research, there is a possibility that some information is shared by a child about doing serious harm to themselves or others. If keeping information obtained in this study private would immediately put them or someone else in danger, the investigators would release that information to protect them or another person. Also, one survey includes questions related to drug and alcohol use. If the child reports excessive use of alcohol or drug use, the investigator will report this to you.

YOUR RIGHTS TO PARTICIPATE, SAY NO, OR WITHDRAW

Participation in this research project is completely voluntary. You and your child have the right to say no. You or your child may change your minds at any time and withdraw from the study. You and your child may also choose not to answer specific question or to stop participating at any time. Your decision will not affect the services that you receive from ACCESS. If you choose not to be in this study you will still receive medical care from ACCESS.

COSTS AND COMPENSATION FOR BEING IN THE STUDY:

It does not cost anything to participate in this study. In appreciation of your time, you will be given a \$15 gift card. Also, if your child chooses to participate in this study, he/she will be given \$15 gift card.

CONTACT INFORMATION FOR QUESTIONS AND CONCERNS

If you have concerns or questions about this study, such as scientific issues, how to do any part of it, or to report an injury, please contact the researchers, Anisa Goforth, by phone: 503-562-9379; email: goforth2@msu.edu or Dr. Evelyn Oka, by phone: 517-432-9615; email: evoka@msu.edu; 439 Erickson Hall, East Lansing, MI, 48824. If you have questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this study, you may contact, anonymously if you wish, the Michigan State University's Human Research Protection Program at 517-355-

2180, Fax 517-432-4503, or e-mail irb@msu.edu or regular mail at 202 Olds Hall, MSU, East Lansing, MI 48824.

DOCUMENTATION OF INFORMED CONSENT

Acculturation and Psychological Adjustment Among Arab American Adolescents

Please select a box, fill in your child's name, and sign below.

- ☐ **Yes**, my child _____ may participate in this research study.

Please Print Child's Name

- ☐ **No**, my child _____ may not participate in this research study.

Please Print Child's Name

Signature

Date

PLEASE PRINT:

Circle One: Mother Father Other _____ Parent/Guardian Name

You will be given a copy of this form to keep.

APPENDIX B

Adolescent Assent Form

ASSENT TO BE IN RESEARCH

Study Title: Acculturation and Psychological Adjustment among Arab American Adolescents

This is a research study and you do not have to take part. You are being asked to take part in this study because you identified yourself as being of Arab descent. In this study, the researchers hope to learn about children's feelings about American and Arab culture. About 200 children will participate in this study.

What will happen if I take part in this study?

If you agree to be in this study, you will complete a survey at the ACCESS Child and Adolescent Health Clinic. The surveys will ask about your culture and about your general feelings and mood. An adult will either read the questions to you or you can complete the survey by yourself. The surveys are for research purposes only, and the results will not be shared with you, your parents, or the ACCESS staff.

Are there any risks to me or my privacy?

Some of the survey questions may make you feel uncomfortable. You may skip any question.

We will do our best to protect the information we collect from you. We will give you an ID code and not use your name. The completed surveys will be kept secure and separate from information which identifies you. Only a small number of researchers will have access to the surveys. If the study is published or presented at scientific meetings, names and other information that might identify you will not be used.

Are there benefits?

There is no direct benefit to you. Your participation in this study may help us understand children's feelings as it relates to their identity.

Can I say "No"?

Yes, you do not have to complete a survey. If you choose not to be in this study you will not lose any of your regular benefits, and you can still receive medical care from ACCESS.

Are there any payments or costs?

It does not cost anything to participate in this study. To thank you for your time, you will be given a \$15 gift card.

Who can answer my questions about the study?

You can talk with the study researcher about any questions, concerns, or complaints you have about this study. Contact the study researchers: Anisa Goforth, by phone: 503-562-9379; email: goforth2@msu.edu or Dr. Evelyn Oka, by phone: 517-432-9615; email: evoka@msu.edu; 435 Erickson Hall, East Lansing, MI, 48824.

If you wish to ask questions about the study or your rights as a research participant to someone other than the researchers please call the Michigan State University's Human Research Protection Program at 517-355-2180, Fax 517-432-4503, or e-mail irb@msu.edu or regular mail at 202 Olds Hall, MSU, East Lansing, MI 48824.

Assent**PARTICIPATION IN RESEARCH IS VOLUNTARY.**

You have been given copies of this consent form to keep. If you wish to be in this study, please sign below.

Date

Participant's Signature for Assent

Date

Person Obtaining Assent

APPENDIX C

Adolescent Demographic Questionnaire

ADOLESCENT QUESTIONNAIRE

1. In what country were you born? _____

2. Were you born outside the U.S.? (please circle) yes no

3. If yes, how old were you when you arrived? _____

4. If yes, how long have you been living in the United States? _____

5. At home, do you speak:

- ☐ Mostly English
- ☐ English and Arabic about equally
- ☐ Mostly Arabic
- ☐ Only Arabic
- ☐ Only English
- ☐ Another language combination (please explain): _____

6. How often have you visit an Arab country:

- ☐ Never
- ☐ Once or twice in my life
- ☐ Three to six times in my life
- ☐ I visit/have visited on a regular basis (for example, every year, every couple of years)

7. What religion do you follow?

- ☐ Druze
- ☐ Christian (please specify, e.g., Maronite, Greek Orthodox, Catholic): _____
- ☐ Jewish
- ☐ Muslim (please specify, e.g., Sunni, Shi`aa): _____
- ☐ No religion (including agnostic/atheist)
- ☐ Other (please specify) _____

8. How often do you and your parent(s) disagree or have conflict?

- ☐ We never have conflict
- ☐ Once a week
- ☐ 2 – 4 times per week
- ☐ Everyday

9. At school, most of your friends are:

- ☐ Mostly non-Arab
- ☐ Mostly Arab/Chaldean
- ☐ Non-Arab and Arab/Chaldean about equally

10. Outside of school, most of your friends are:

- ☐ Mostly non-Arab
- ☐ Mostly Arab/Chaldean
- ☐ Non-Arab and Arab/Chaldean about equally

APPENDIX D

Parent Demographic Questionnaire

PARENT QUESTIONNAIRE

We want to learn about you and your child. Please answer the following questions as honestly as possible.

1. Your Birthday: _____
Month Day Year

2. What is your relationship to the child? Please circle: Mother Father
Legal Guardian

3. In what country were you born? _____

4. If you were born outside of the U.S., how old were you when you arrived? _____

5. How long have you been living in the United States? _____

6. What school does your child attend? _____

7. Mother:

Highest level of education completed:

- ___ Grades 0-8
- ___ Grades 9-11
- ___ High School or GED
- ___ Some college (1 year or more)
- ___ College graduate
- ___ Post-college

Current Employment:

- ___ Yes, full time (describe) _____
- ___ Yes, part time (describe) _____
- ___ Not working (receiving govt asst)
- ___ Not working by choice

8. Father:

Highest level of education completed:

- ___ Grades 0-8
- ___ Grades 9-11
- ___ High School or GED
- ___ Some college (1 year or more)
- ___ College graduate
- ___ Post-college

Current Employment:

- ___ Yes, full time (describe) _____
- ___ Yes, part time (describe) _____
- ___ Not working (receiving govt asst)
- ___ Not working by choice

9. What religion do you and your family follow?

- ☐ Druze
- ☐ Christian (please specify, e.g., Maronite, Greek Orthodox, Catholic): _____
- ☐ Jewish
- ☐ Muslim (please specify, e.g., Sunni, Shi`aa): _____
- ☐ No religion (including agnostic, atheist)
- ☐ Other (please specify) _____

10. How religious are you?

- ☐ Very religious
- ☐ Somewhat religious
- ☐ Not religious

11. How often have you visited an Arab country:

- ☐ Never
- ☐ Once or twice in my life
- ☐ Three to six times in my life
- ☐ I visit/have visited on a regular basis (for example, every year, every couple of years)

12. Does your extended family (for example, your parents, aunts and uncles, grandparents, siblings) live:

- ☐ Mostly in the United States in the same city as you
- ☐ Mostly in the United States but in other cities
- ☐ About half in the U.S. and half in an Arab country
- ☐ About half in the U.S. and half in another non-Arab country
- ☐ Mostly in an Arab country
- ☐ Mostly in another non-Arab country
- ☐ Other (please explain): _____

13. At home, do you speak:

- ☐ Only English
- ☐ Mostly English
- ☐ English and Arabic about equally
- ☐ Mostly Arabic
- ☐ Only Arabic
- ☐ Another language combination (please explain): _____

14. Most of your friends are:

- ☐ Mostly non-Arab
- ☐ Mostly Arab/Chaldean
- ☐ Non-Arab and Arab/Chaldean about equally

15. How often do you and your child disagree or have conflict?

- ☐ We never have conflict
- ☐ Once a week
- ☐ 2 - 4 times a week
- ☐ Every day

APPENDIX E

Vancouver Index of Acculturation

Vancouver Index of Acculturation

Please answer each question as carefully as possible by circling *one* of the numbers to the right of each statement. Circle 1 if you strongly disagree, circle 5 if you are neutral, and circle 9 if you strongly agree with the statement. Remember, choose one of the numbers.

Many of these questions will refer to your *heritage culture*, meaning the culture that has influenced you most (other than *American* culture). It may be the culture of your birth, the culture in which you have been raised, or another culture that forms part of your background (for example, Yemeni culture or Lebanese culture). If there are several such cultures, pick the one that has influenced you *most*. If you do not feel that you have been influenced by any other culture, please try to identify a culture that may have had an impact on previous generations of your family.

Please write your *heritage culture* in the space provided. _____

The following questions are about *American* culture.

		Strongly Disagree			Neutral			Strongly Agree		
		1	2	3	4	5	6	7	8	9
1	I often participate in mainstream <i>American</i> cultural traditions.									
2	I would be willing to marry an <i>American</i> person.									
3	I enjoy social activities with typical <i>American</i> people.									
4	I am comfortable working with typical <i>American</i> people, such as at school or at a job.									
5	I enjoy <i>American</i> entertainment (e.g., movies, music).									
6	I often behave in ways that are ‘typically <i>American</i> .’									
7	It is important for me to maintain or develop <i>American</i> cultural practices.									
8	I believe in mainstream <i>American</i> values.									
9	I enjoy typical <i>American</i> jokes and humor.									
10	I am interested in having <i>American</i> friends.									

The following questions are about your *heritage culture*.

		Strongly Disagree			Neutral			Strongly Agree		
		1	2	3	4	5	6	7	8	9
11	I often participate in my <i>heritage cultural</i> traditions.									
12	I would be willing to marry a person from my <i>heritage culture</i> .	1	2	3	4	5	6	7	8	9
13	I enjoy social activities with people from the same <i>heritage culture</i> as myself.	1	2	3	4	5	6	7	8	9
14	I am comfortable working with people of the same <i>heritage culture</i> as myself, such as at school or at a job	1	2	3	4	5	6	7	8	9
15	I enjoy entertainment (for example, movies, music) from my <i>heritage culture</i> .	1	2	3	4	5	6	7	8	9
16	I often behave in ways that are typical of my <i>heritage culture</i> .	1	2	3	4	5	6	7	8	9
17	It is important for me to maintain or develop the practices of my <i>heritage culture</i> .	1	2	3	4	5	6	7	8	9
18	I believe in the values of my <i>heritage culture</i> .	1	2	3	4	5	6	7	8	9
19	I enjoy the jokes and humor of my <i>heritage culture</i> .	1	2	3	4	5	6	7	8	9
20	I am interested in having friends from my <i>heritage culture</i> .	1	2	3	4	5	6	7	8	9

Vancouver Index of Acculturation

Please answer each question as carefully as possible by circling *one* of the numbers to the right of each statement. Circle 1 if you strongly disagree, circle 5 if you are neutral, and circle 9 if you strongly agree with the statement. Remember, choose one of the numbers.

Many of these questions will refer to your *heritage culture*, meaning the culture that has influenced you most (other than *American* culture). It may be the culture of your birth, the culture in which you have been raised, or another culture that forms part of your background (for example, Yemeni culture or Lebanese culture). If there are several such cultures, pick the one that has influenced you *most*. If you do not feel that you have been influenced by any other culture, please try to identify a culture that may have had an impact on previous generations of your family.

Please write your *heritage culture* in the space provided. _____

The following questions are about your *heritage culture*.

		Strongly Disagree			Neutral			Strongly Agree		
		1	2	3	4	5	6	7	8	9
1	I often participate in my <i>heritage cultural</i> traditions.									
2	I would be willing to marry a person from my <i>heritage culture</i> .									
3	I enjoy social activities with people from the same <i>heritage culture</i> as myself.									
4	I am comfortable working with people of the same <i>heritage culture</i> as myself, such as at school or at a job									
5	I enjoy entertainment (for example, movies, music) from my <i>heritage culture</i> .									
6	I often behave in ways that are typical of my <i>heritage culture</i> .									
7	It is important for me to maintain or develop the practices of my <i>heritage culture</i> .									
8	I believe in the values of my <i>heritage culture</i> .									
9	I enjoy the jokes and humor of my <i>heritage culture</i> .									
10	I am interested in having friends from my <i>heritage culture</i> .									

The following questions are about *American culture*.

		Strongly Disagree			Neutral			Strongly Agree		
		1	2	3	4	5	6	7	8	9
11	I often participate in mainstream <i>American</i> cultural traditions.									
12	I would be willing to marry an <i>American</i> person.									
13	I enjoy social activities with typical <i>American</i> people.									
14	I am comfortable working with typical <i>American</i> people, such as at school or at a job.									
15	I enjoy <i>American</i> entertainment (e.g., movies, music).									
16	I often behave in ways that are ‘typically <i>American</i> .’									
17	It is important for me to maintain or develop <i>American</i> cultural practices.									
18	I believe in mainstream <i>American</i> values.									
19	I enjoy typical <i>American</i> jokes and humor.									
20	I am interested in having <i>American</i> friends.									

APPENDIX F

Societal, Attitudinal, Familial, and Environmental Acculturative Stress Scale—Children’s Versions (SAFE-C)

SAFE-C

Please answer each question as carefully as possible by circling one of the numbers to the right of each statement.

		Doesn't apply to me	Doesn't bother me	Almost never bothers me	Sometimes bothers me	Often bothers me	Bothers me a lot
1	I feel bad when others made jokes about people who are in the same group as me.	0	1	2	3	4	5
2	It's hard for me to talk to new kids.	0	1	2	3	4	5
3	I have more things that get in my way than most people do.	0	1	2	3	4	5
4	It bothers me that people in my family who I am close to don't understand the things that I think are important, that are new to them.	0	1	2	3	4	5
5	People in my family who I am close to have plans for when I grow up that I don't like.	0	1	2	3	4	5
6	It bothers me when someone in my family is very sick.	0	1	2	3	4	5
7	It bothers me when my parents argue.	0	1	2	3	4	5
8	It's hard for me to tell my friends how I really feel.	0	1	2	3	4	5
9	I don't have any close friends.	0	1	2	3	4	5
10	It's hard for me to ask questions in class.	0	1	2	3	4	5
11	I worry about what other kids think about me.	0	1	2	3	4	5

12	Many people believe certain things about the way people in my group act, think, or are, and they treat me as if those things are true.	0	1	2	3	4	5
13	I worry about having to take tests in school.	0	1	2	3	4	5
14	I don't feel at home here in the United States.	0	1	2	3	4	5
15	People think I am shy, when I really just have trouble speaking English.	0	1	2	3	4	5
16	I worry about being sick.	0	1	2	3	4	5
17	The thought of my family and I moving to a new place bothers me.	0	1	2	3	4	5
18	I often feel that people purposely try to stop me from getting better at something.	0	1	2	3	4	5
19	I worry that other kids won't like me.	0	1	2	3	4	5
20	It bothers me when people force me to be like everyone else.	0	1	2	3	4	5
21	I worry that other kids are making fun of me.	0	1	2	3	4	5
22	I often feel like people who are supposed to help are really not paying any attention to me.	0	1	2	3	4	5
23	It bothers me when I am not with my family.	0	1	2	3	4	5
24	Because of the group I am in, I don't get the grades I deserve.	0	1	2	3	4	5

25	It bothers me when I argue with my brother/sister.	0	1	2	3	4	5
26	I worry about getting my report card.	0	1	2	3	4	5
27	It bothers me that I have an accent.	0	1	2	3	4	5
28	It's hard to be away from the country I used to live in.	0	1	2	3	4	5
29	I think a lot about my group and its culture.	0	1	2	3	4	5
30	It bothers me when some countries of the world don't get along.	0	1	2	3	4	5
31	It's hard to talk with my teacher.	0	1	2	3	4	5
32	Because of the group I am in, I feel others don't include me in some of the things they do, games they play, etc.	0	1	2	3	4	5
33	It's hard for me to "show off" my family.	0	1	2	3	4	5
34	People think badly of me if I practice customs or I do the "special things" of my group.	0	1	2	3	4	5
35	I have a hard time understanding what others say when they speak.	0	1	2	3	4	5
36	I worry about having enough money.	0	1	2	3	4	5

APPENDIX G

Brief Multidimensional Measure of Religiousness/Spirituality

BMMRS

1. How often do you go to religious services?

- ☐ More than once a week
- ☐ Every week or more often
- ☐ Once or twice a month
- ☐ Every month or so
- ☐ Once or twice a year
- ☐ Never

2. Besides religious services, how often do you take part in other activities at a place of worship?

- ☐ More than once a week
- ☐ Every week or more often
- ☐ Once or twice a month
- ☐ Every month or so
- ☐ Once or twice a year
- ☐ Never

3. To what extent do you consider yourself a religious person?

- ☐ Very religious
- ☐ Moderately religious
- ☐ Slightly religious
- ☐ Not religious at all

4. To what extent do you consider yourself a spiritual person?

- ☐ Very spiritual
- ☐ Moderately spiritual
- ☐ Slightly spiritual
- ☐ Not spiritual at all

5. How often do you pray privately in places other than at church or mosque?

- ☐ More than once a day
- ☐ Once a day
- ☐ A few times a week
- ☐ Once a week
- ☐ A few times a month
- ☐ Once a month
- ☐ Less than once a month
- ☐ Never

6. How often do you watch or listen to religious programs on TV, radio or on the internet?

- ☐ More than once a day
- ☐ Once a day
- ☐ A few times a week
- ☐ Once a week
- ☐ A few times a month
- ☐ Once a month
- ☐ Less than once a month
- ☐ Never

7. How often do you read the Bible, Koran, or other religious literature?

- ☐ More than once a day
- ☐ Once a day
- ☐ A few times a week
- ☐ Once a week
- ☐ A few times a month
- ☐ Once a month
- ☐ Less than once a month
- ☐ Never

8. How often are prayers (such as saying *Bismallah*) or grace said before or after meals in your home?

- ☐ More than once a day
- ☐ Once a day
- ☐ A few times a week
- ☐ Once a week
- ☐ A few times a month
- ☐ Once a month
- ☐ Less than once a month
- ☐ Never

APPENDIX H

Reynolds Short Form A of the Marlowe-Crowne Social Desirability Scale

Marlowe-Crowne Scale
Reynolds Short Form

Listed below are a number of statements about people's personality. Read each item and decide whether the statement is true or false as it relates to you.

- T F 1. It is sometimes hard for me to go on with my work if I am not encouraged.
- T F 2. I sometimes feel resentful when I don't get my way.
- T F 3. No matter who I'm talking to, I'm always a good listener.
- T F 4. There have been occasions when I took advantage of someone.
- T F 5. I'm always willing to admit it when I make a mistake.
- T F 6. I sometimes try to get even rather than forgive and forget.
- T F 7. I am always courteous, even to people who are disagreeable.
- T F 8. I have never been irked when people expressed ideas very different from my own.
- T F 9. There have times when I was quite jealous of the good fortune of others.
- T F 10. I am sometimes irritated by people who ask favors of me.
- T F 11. I have never deliberately said something that hurt someone's feelings.

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