

Academic Achievement and Psychological Distress among Muslim Adolescents

Attending Public High Schools

BY

ASHMEET KAUR OBEROI

B.S., University of Delhi, 1999

M.S., University of Delhi, 2001

M.A., University of Illinois at Chicago, 2008

THESIS

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Defense Committee:

Edison J. Trickett, Chair, Advisor

David Henry

Dina Birman

Rooshey Hasnain, Asian American Studies

Kevin Kumashiro, University of San Francisco

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TABLE OF CONTENTS

<u>CHAPTER</u>	<u>PAGE</u>
I. INTRODUCTION.....	1
A. Purpose of the Current Study	1
B. An Ecological Understanding of the Academic and Psychological adjustment of Muslim Students.....	3
C. A Brief Portrait of Muslims in United States.....	4
D. Who are Muslim Youth?.....	5
E. Why Study Academic Achievement and Aspirations of Muslim High School Students.....	5
F. Why Study Psychological Distress among Muslim High School Students.....	6
II. LITERATURE REVIEW.....	8
A. Individual Characteristics as Predictors of Academic and Psychological Outcomes.....	9
1. Religiosity.....	9
2. Native culture and American acculturation.....	12
3. Gendered experiences of Islam in public school.....	15
B. Environmental Contributors to Academic and Psychological Outcomes	16
1. Acculturative hassles	16
2. Perceptions of teacher support.....	21
3. Structural support for Islamic religious practices at the school.....	23
C. Interactions between Gender and Acculturative Hassles and Teacher Support.....	25
D. Current Study.....	26
a. Research question 1.....	27
i. Specific hypotheses.....	27
b. Research question 2.....	27
i. Specific hypotheses.....	28
c. Research question 3.....	28
i. Specific hypotheses.....	28
III. METHOD.....	29
A. Sampling.....	29
B. Participants.....	31
C. School Descriptions.....	32
D. Measures.....	34
1. Demographic information.....	34
2. Religiosity	35
3. Acculturation.....	35
4. Acculturative hassles.....	36
5. Teacher support.....	38
6. Structural support for religious practices.....	38
7. Academic performance	39
8. Educational aspirations and expectations.....	39

TABLE OF CONTENTS (continued)

<u>CHAPTER</u>	<u>PAGE</u>
9. Psychological Distress.....	40
10. Pilot testing the measures.....	40
11. Order of the measures	41
E. Procedures.....	42
IV. RESULTS.....	43
A. Data Preparation for Analysis	43
1. Data cleaning and recoding	43
2. Violations of independence of observations.	43
3. Checks for reliability of responses.....	44
4. Data transformations	44
B. Bivariate Correlations.....	45
C. Multivariate Analysis.....	46
1. Model of academic performance.....	47
2. Model of educational expectations.....	48
3. Model of psychological distress.....	48
D. Relationship of Control Variables to Academic Achievement, Expectations, and Psychological Distress.....	49
E. Relationship of Individual Characteristics to Academic Achievement, Expectations, and Psychological Distress.....	49
1. H1: Gender differences	49
2. H2: Islamic religiosity.....	49
3. H3: American acculturation.....	50
4. H4: Native culture acculturation.....	50
F. Relationship of Students' Perceptions of School Contextual Factors to Academic Achievement, Expectations, and Psychological.....	51
1. H5: Acculturative hassles.....	51
2. H6: Teacher support.....	52
3. H7: Structural support at school for religious practices.....	52
G. Interactions between Gender and Acculturative Hassles and Teacher Support..	53
1. H8: Gender interactions.....	53
H. Summary.....	53
V. DISCUSSION.....	55
A. Relationship of Individual Characteristics to Academic Achievement, Expectations, and Psychological Distress.....	55
1. Islamic religiosity.....	55
2. American and native culture acculturation.....	58
3. Gender.....	60
B. Relationship of Students' Perceptions of School Contextual Factors to Academic Achievement, Expectations, and Psychological.....	62

TABLE OF CONTENTS (continued)

<u>CHAPTER</u>	<u>PAGE</u>
1. Acculturative hassles.....	62
2. Teacher support.....	63
C. Limitations and Implications for Future Research.....	64
D. Conclusions.....	68
REFERENCES.....	69
APPENDICES.....	91
APPENDIX A.....	92
APPENDIX B.....	101
APPENDIX C.....	102
VITA.....	120

LIST OF TABLES

<u>TABLE</u>		<u>PAGE</u>
I.	Descriptions of Participant Characteristics.....	77
II.	Descriptive Statistics for the Study Variables.....	79
III.	Bivariate Correlations among the Study Variables.....	81
IV.	List of Variables by Each Research Question.....	86
V.	Random-Intercept Cumulative Logit Model Predicting Academic Performance.....	87
VI.	Linear Mixed Effect Regression for the Predictors of Educational Expectations.....	88
VII.	Linear Mixed Effect Regression for the Predictors of Psychological Distress...	89

LIST OF FIGURES

<u>FIGURE</u>	<u>PAGE</u>
1. Model of the Relationship among Variables in the Present Study.....	90

Summary

Islamic norms and Islamophobia present unique challenges for Muslim adolescents attending public high schools in United States. Yet, Muslim youth see Islam not just as religion but also as a guiding force and a way of life. Additionally, they negotiate multiple social identities based on race (e.g. South Asian or Middle-Eastern), ethnicity (Somali Muslims), social class, and gender. However, little is known about how interactions between personal qualities of Muslim adolescents and the environmental factors present in their schools influence their academic and psychological outcomes. This study addressed the question: What is the relationship between gender, religiosity, and acculturation of Muslim adolescents and their perceptions of three school contextual variables – perceived support from teachers, school structural support for religious practices, and acculturative hassles – to their academic achievement, educational aspirations, and psychological distress? Islamic religiosity was found to be significantly positively associated with both academic performance and educational expectations. American and native culture acculturation was positively associated with higher educational expectations. Female Muslim students reported performing academically just as well as their male cohorts and had comparable high educational and professional aspirations. Additionally, this study found that although most Muslim students reported experiencing a moderate to high number of hassles at school unique to their religion, they did not find them severe enough to affect their academic achievement and expectations. However, hassles were positively associated with psychological distress. Further, students reported receiving moderate to high teacher support from most of their teachers which was significantly associated to their academic achievement. The adolescents also report moderate levels of structural support at school for their religious practices. The findings of the study thus, augment as well as contradict prior literature. The above findings contradict literature that tends

MUSLIM HIGH SCHOOL STUDENTS

to emphasize underperformance of female Muslim students and lack of support from teachers in general. Further, the study findings elaborate the existing literature by establishing the positive link between religiosity and academic engagement, and number of acculturative hassles and higher psychological distress among high school Muslim students. The results of this study thus, underscore the importance of further research on the contribution of individual level coping and adaptation and the role of school context in the academic engagement and psychological adjustment of Muslim high school students. Several recommendations for future research with this hard to access population are also made.

Academic Performance and Psychological Distress among Muslim Adolescents in U.S. Public High Schools

“Islam is of the Devil”. Several Christian students in Florida came to their high school wearing t-shirts proclaiming this (Fox News, August 26, 2009). Reports of Muslim students being teased or harassed at school by their peers because of their Muslim and ethnic identities are on the rise ever since the events of September 11th in U.S. and July 7th in Britain (Bhatti, 2006; Handwerk & Habboo, 2002; Vyas, 2004). The religion of Islam is observed by between six to eight million people in the United States (Haniff, 2003). For Muslim students, even “secular” public schools are not a religion-free space because their religious beliefs and values are central in their manner of living (such as appearance, food choices, and behavioral norms towards the opposite sex) and are at times physically visible as well (Bigelow, 2008; Zine, 2001). These choices play a significant role in how Muslim students are perceived by their peers and the staff at their schools.

Although, religion may be the primary visible marker for some Muslim students, they also negotiate multiple social identities based on race (e.g. Somali Muslims), ethnicity (South Asian or Middle-Eastern), social class, and gender. Further, most of this negotiation between different social and cultural realities occurs in school because Muslim youth face the often conflicting demands of the dominant culture, their ethnic culture, and religion mostly in public schools (Ahmad & Szpara, 2003; Collet, 2007; Zine, 2007). The above underscores the importance of a contextual understanding of the school experiences of Muslim children.

Purpose of the Current Study

The goal of my proposed dissertation then was to understand transactions between personal qualities of Muslim adolescents and the environmental factors present in their schools

as they impact their academic achievement, educational aspirations, and psychological distress. Specifically, I assessed four individual difference variables (gender, religiosity, and acculturation to native and American culture) and individual students' perceptions of three contextual variables (perceived support from teachers, school structural support for religious practices, and acculturative hassles). With respect to the study model (see Figure 1), I proposed that individual differences among Muslim high school students rooted in gender, religiosity, native culture and American acculturation will predict their academic achievement and expectations, and psychological distress. In addition, Muslim adolescents' varying appraisal of their school environments, particularly perceptions of teacher support, structural support for religious practices, and differential experiences of acculturative hassles school will also predict their academic achievement, aspirations, and psychological distress. Finally, I proposed that the effect of gender on academic achievement, educational aspirations, and psychological distress will be moderated by experiences of acculturative hassles and perceptions of teacher support. I argue that this model may be particularly relevant for studying educational and psychological outcomes among Muslim adolescents because it recognizes the importance of both their personal qualities as well as their assessment of their unique contexts. Specific hypotheses are presented later in the review of the literature.

The first section of the introduction describes the ecological perspective in community psychology as the framework guiding the research questions. The second section presents a brief portrait of Muslim students in U.S. and their unique circumstances. The third section presents the literature review relevant to Muslim students in U.S. including findings from a pilot study conducted using focus groups with recent post-high school Muslim college students. Finally, I list the proposed hypotheses for each research question before presenting the Methods.

An Ecological Understanding of the Academic and Psychological Adjustment of Muslim Students

The ecological approach in community psychology (Trickett, 2009; Trickett, Kelly & Vincent, 1985) provides a framework that directs attention to people's contexts and person-environment interactions. One of the objectives of the ecological framework in community psychology is to understand the social and cultural context of individuals and how it affects their behavior. It adopts a coping and adaptation perspective on individual behavior in a social setting and thus, attention is directed to the interactions between qualities of individuals and the environmental forces they encounter in their respective contexts. As Trickett (2009) elucidates, "incorporating the traditional psychological concern with individual differences, an ecological perspective directs attention not only to main effects but also to the interactive effects of social contexts and individuals representing different cultural identification, coping styles, gender, and social roles in those contexts (p. 396)." Therefore, the person-environment fit approach in ecological perspective allows for this study to address the academic achievement and psychological adjustment of Muslim adolescents as a product of an interaction between the personal characteristics of the students and their perceptions of their environment.

When applied to the academic and psychological adjustment of young Muslim adolescents, the ecological perspective draws attention to how Muslim students with diverse cultural orientations, religious practices and degrees of religiosity, cope and adapt to their local school contexts. These school contexts in turn consist of different demand characteristics, norms, structures, and risk and protective factors such as acculturative stresses and teacher support. The focus on adaptation in the ecological framework applies a notion of 'fit' that relates to how the culture of a school poses distinct demands on its participants and how they in turn adapt to these demands (Trickett

& Birman, 1989). When examining the school setting, it may become clear that individual needs and behavior may or may not mesh with the environmental press of the school. Thus, schools may send messages to Muslim students on a) what a “good” *student* is; and b) what a “good” *Muslim student* is in an American high school.

The ecological framework described above serves as an orienting framework and provides a set of questions for the assessment of school experiences of Muslim adolescents. Below, I briefly present a portrait of Muslim students in U.S. and describe the unique circumstance of Muslim adolescents attending American public schools that warrant an assessment of their academic achievement, aspirations, and psychological adjustment.

A Brief Portrait of Muslims in United States

The most frequently cited estimate of Muslims in U.S. is 7 million, although there are no official statistics (Haniff, 2003). Islam is also said to be the fastest growing religion in America (Haniff, 2003), but recent events and the subsequent stereotyping have led to a distorted, homogenous, and negative portrayal of this religion (Handwerk & Habbou, 2002). Further, there is tremendous within group diversity among Muslims in America with Muslims from 80 distinct nationalities, different ideologies and practices, and cultural values comprising the Islamic population in U.S. In the United States, the Muslim population is divided between immigrants and non-immigrants, with immigrants comprised of Arabs (26.2%), South Asians (24.7%), Middle Eastern non-Arabs (10.3%), and East Asians (6.4%) and non-immigrants consisting of African Americans (23.8%) and Caucasian and Native Americans (11% ; U.S. State Department, 2004). American Muslims consider religion to be an integral part of their daily life (79% vs. 63% of the general public) and this importance of religion is held among youth as well (Haniff, 2003).

Who are Muslim Youth?

The international literature reviewed asserts that Muslim children born and raised in North American and European countries are often assigned varying identities depending on who the dominant group is, irrespective of how they self-identify (Abu El-Haj, 2002; Shah, 2006; Vyas, 2004). However, most studies report (e.g. Sheikh, 2009; Stuart & Ward, 2011; Zine, 2001) that these youth view themselves, first and foremost, as Muslim. Regardless of the magnitude of their religiosity, the basic premise of Islam is apparently prevalent in the lives of these adolescents and studies corroborate that Muslim students living in America consider Islam a “way of life” where they are bound by traditional Islamic practices, rather than simply one’s religion (Ahmad & Szpara, 2003; Carter, 1999).

Hence, these youth should be viewed as having complex, multifaceted, dynamic and context dependent identities, impacted by their desire to function as Muslims in an American society, and bring to school their whole selves and not be “part-time Muslims” (Ahmad & Szpara, 2003, p. 299). However, the challenges faced by Muslim adolescents attending public schools in America and how they cope with these challenges are relatively unknown.

Why Study Academic Achievement and Aspirations of Muslim High School Students

There are several reasons why academic achievement and educational aspirations is a significant issue among high school Muslim students. First, there is a pressure from parents to do well academically, including attaining good grades, getting high SAT scores, and applying for colleges (Sheikh, 2009). However, the literature suggests that academic achievement of Muslim students is often a general casualty of school factors, including lack of support from teachers and discrimination at school. In his discussions of educational experiences of South Asian Muslim adolescents in UK, Bhatti (2006) reports that these children felt neglected and discriminated

against by their teachers and expressed feelings of disappointment and betrayal at their teachers failing to guide them. Although, the literature claims that Muslim students value academic achievement and careers (e.g. Ahmed & Szpara, 2003; Bhatti, 2006; Shah, 2006), studies assessing Muslim students' academic achievement and aspirations and what factors influence them are non-existent. The few qualitative studies done with Muslim high school students (e.g. Ahmad & Szpara, 2003; Bigelow, 2008; Zine, 2001, 2006) underscore that these students, especially girls, are given messages at school that undermine their academic achievement and aspirations, but how specific aspects of their environment like teacher support or degrees of acculturative hassles affect academic achievement and aspirations have not been explored. This study addresses this gap in the literature by assessing the academic achievement and aspirations of a group of high school Muslim students and how it is impacted by a set of personal qualities and environmental forces described later.

Why Study Psychological Distress among Muslim Adolescents

There are several reasons why psychological distress is an outcome of interest among high school Muslim students. Recent literature highlights “fitting in” as an important adaptive issue for Muslim adolescents, promoted implicitly or explicitly at mainstream public schools by educators, peers, classroom practices, curriculum, and school policies. The importance of fitting in often places profound psychological demands on Muslim youth (see Oberoi, 2012 for a review). While the public schools exert a press on Muslim students to adhere to the norms of the American society, their parents expect them to uphold traditional Islamic and cultural values as well as practice Islam in schools (e.g. dietary restrictions, regulating interactions with the opposite sex, dressing modestly, fasting, etc), which pose additional stressors on these children. Thus, besides the normative challenges of adolescence, Muslim adolescents face additional risk

factors for distress because of growing up Muslim and attending mainstream public schools in America.

Further, challenges faced by Muslim adolescents at public school are exacerbated by prejudice from peers due to stereotyped images of Muslims and females wearing the *hijab*, the negative portrayal of Islam by teachers and in textbooks, and celebration of non-Muslim holidays (Carter, 1999). Similarly, Muslim adolescents from New Jersey reported that school staff members are generally racist and do not understand their Islamic backgrounds (Sheikh, 2009). Thus, the literature reviewed is strongly of the opinion that certain aspects of the school environment in American public schools, especially the social relations with teachers and peers, combined with unique characteristics of an Islamic lifestyle and traditional cultural values, are a source of considerable stress to Muslim students which may have a psychological toll on them. However, very few studies have assessed psychological distress among Muslim adolescents. For example, Ahmed, Kia-Keating and Tsai (2011) found a strong positive relationship between socio-cultural adversities (discrimination and acculturative stress) and psychological distress among Arab Muslim adolescents in the Detroit area. However, no studies to date have studied the impact of students' feelings about their school environment on their psychological distress. The proposed study addresses this gap in literature by empirically assessing the psychological distress experienced by a group of Muslim high school students and how it is influenced by a combination of their personal qualities and their assessment of certain school environment features.

Literature Review

Below I present the literature reviewed on selected individual level differences and school climate features that are likely to influence academic achievement, educational aspirations, and psychological distress among Muslim high school students. The ecological perspective used in this study proposes interactions between people and their environments. Employing an ecological perspective gives the researcher an “opportunity to understand what is complex and unique about a given setting or context” (Kingry-Westergaard & Kelly, 1990, p. 23). Throughout the literature review, if such ecological nuances were discussed they’ll be highlighted and ways in which this study assesses the complexities will also be explicitly mentioned. However, the existing literature presented Muslim students as a homogenous group and as such was inconsistent with the ecological perspective in understanding individual differences among Muslim adolescents. Further, the literature talked about correlates like acculturation and religiosity of Muslim students in unidimensional ways and thus, from an ecological perspective, it was important to understand the ecological nuances of their lives such as looking more carefully at various dimensions of acculturation, religiosity, and acculturative hassles.

In order to explore the ecological context of school lives of Muslim adolescents certain questions may be asked, such as: What are the implications of a Muslim student’s religiosity for the student’s experiences of school? Does a Muslim student’s religious orientation impact the acculturative challenges the student faces at school? What school structural supports do for their psychological well-being? To address such questions, focus groups discussions were conducted with 14 Muslim students at UIC who graduated recently from public high schools. The focus groups allowed the researcher to examine how Muslim adolescents from diverse backgrounds

and different genders attending different schools make sense of their experiences in American public high schools (see Appendix A for details on specific aims, questions addressed, recruitment, and procedure for data collection for focus groups). The findings from the focus group discussions that augment the existing literature are presented simultaneously with the relevant literature review. The rationale behind presenting the focus groups findings this way were: a) illustrating to the reader whether the themes and issues present in the literature are relevant to the focus group participants; b) to point out gaps in the literature both in terms of questions that the literature isn't asking and topics the measurement isn't addressing; and c) to inform hypotheses and measurement for the current study. In most cases, the focus group results enhance the literature by adding ecological nuance to it and were thus used to refine as well as specify the directions of relationships between variables in hypotheses. Further, the findings also led to the addition of never before studied variables and hypotheses of interest to the school experiences of Muslim adolescents (like the role of structural support at school for religious practices). The literature review is organized in three sections reflecting individual differences, environmental factors, and the interactions between these two. At the end of each section, hypotheses are presented about the proposed relationship between the reviewed construct and the three study outcomes.

Individual Characteristics as Predictors of Academic and Psychological Outcomes

Religiosity

The role of religion in school lives of adolescents has not been explored widely in the research literature. Yet, available evidence suggests that there is a relationship between religiosity and academic success among adolescents. In a study of 12th graders of diverse racial groups (White, African-American, and Hispanic), Jeynes (2003) found that students with a high

level of religiosity did better than less religious students on several measures of academic achievement. Similarly, results of a study on church activities as a correlate of schooling success among public high school sophomores indicate that students' participation in church activities is related to heightened educational expectations as well as higher scores on standardized math/reading tests (Regnerus, 2000).

Although there is evidence of a correlation between post-secondary education and religious participation among Muslim youth (Haniff, 2003), the relationship between educational outcomes of Muslim high school students in U.S. and their religious involvement has not been empirically assessed. However, in studies of South Asian high school students in Britain, Muslim students reported spending more time in religious activities than Hindus and Sikhs and saw Islam as encouraging them to achieve academically and pursue post-secondary education (Abbas, 2003; Bhatti, 2006). Thus, I hypothesized that Muslim students with a stronger commitment to Islamic beliefs and behaviors will have higher academic achievement and expectations in contrast to Muslim adolescents with lower religiosity.

For the purposes of this study, religiosity is defined as a combination of strength of beliefs in the tenets of Islam and the degree of engagement in Islamic religious behavioral practices. This is a deviation from the literature reviewed here, in that most studies on Muslims simply asked participants if they self-identify as Muslims and use that as a proxy for their religiosity. The level of religiosity of Muslims or whether they had converted to Islam is not explicitly measured (Amer & Bagasra, 2013). Therefore, most studies fail to capture the heterogeneity among Muslims in religious practices and strength of faith. This study obtained a nuanced indicator of Muslim adolescents' religiosity by measuring both their strength of beliefs

and engagement in Islamic practices and also if they converted to Islam. Such information is important to discern the generalizability of the results.

In addition to educational outcomes, there are several examples of how dimensions of religion intersect with mental health and well-being. Studies across different populations and age groups have documented an association between religious involvement and reduced rates of depression, anxiety, suicide, drug and alcohol use, and delinquent behaviors (Gong, Takeuchi, Agbayani-Siewert, & Tacata, 2003; Johnson, De Li, Larson, & McCullough, 2000; Koenig & Larson, 2001). Specific to Muslim adolescents, Ward and Stuart (2010) found that a strong Islamic identity and engagement in Muslim practices are associated with better school adjustment and fewer symptoms of psychological distress among Muslim youth in New Zealand. A recent study with Arab American adolescents in Detroit, 85% of which were Muslims, reports that adolescents who reported using more religious coping and having more religious support were less likely to report that they were psychologically distressed (Ahmed et al., 2011).

Participants of the focus groups conducted by the researcher also conveyed that being Muslim and sharing religion with other Muslims at school was like an anchor that gave them a sense of belonging that is a likely protective factor for distress.

“In high school, I could have sat anywhere for lunch but I always made it a point to sit with that one group of five Muslim guys because I feel just being in that company, I could relate to them. Even if we were just goofing around, we understood where we were coming from...Not to say, that people didn’t know I was Muslim or I would act like I wasn’t Muslim but Islam would be on the backburner 100%. But when I sat with the Muslims, we would guide each other. If someone wanted to throw in some knowledge or when it was time to pray we would go pray. It was just the company. You could really be yourself with the people you’re hanging out with when they’re coming from the same religious background as you.” (Pakistani Male)

Therefore in this study, I also hypothesized that Muslim students with higher religiosity will have lower psychological distress in contrast to Muslim adolescents with lower religious

involvement. This study thus extends previous research by directly assessing Muslim adolescents' commitment towards Islamic beliefs and engagement in Islamic behaviors instead of just identification as Muslims. Consistent with the ecological perspective, in this way, this study addresses ideational and behavioral differences in how Muslims observe Islam and how these individual differences in religiosity are related to Muslim adolescents' academic achievement and aspirations, and psychological distress.

Native Culture and American Acculturation

Although religion may be the primary visible marker for some Muslim students, as first or second generation immigrants, they also negotiate terms of acculturation for maintaining their ethnic and/or cultural identities (Stuart and Ward, 2011). Acculturation among individuals is broadly defined as behavioral and psychological changes that take place as a result of contact with culturally dissimilar people, groups, and social influences (Gibson, 2001). Recent literature on acculturation recognizes that native and host cultural orientations are largely independent and that both play important roles in acculturation and adaptation (Berry & Sam, 1997, Birman and Trickett, 2001). For Muslim youth, many may vacillate between the extent to which they may become integrated to Western/U.S. norms versus those of their native cultures (Ahmed & Szpara, 2003; Bigelow, 2008; Zine, 2001). Therefore, this study will thus assess acculturation to both native and American culture separately in addition to religiosity for a group of high school Muslim students.

The literature presents a telling account of how each of the settings – family, school, and the larger community – place distinct acculturative demands on Muslim youth, which may or may not be congruent with each other. For instance, Muslim students feel an acculturative press from their parents, same ethno-religious peers, and the larger Muslim community to maintain

their native cultural and religious practices (Bigelow, 2008; Zine, 2001). Muslim adolescents attending New York City high schools reported that their school lives required skillful negotiation between Islamic values and American norms at school (Ahmad and Szpara, 2003). Further, in contrast to their parents, the immigrant Muslim adolescents in the reviewed studies were far more accepting of both multicultural as well as secular school policies (see e.g. Ahmad and Szpara, 2003; Bigelow, 2008). Thus, the student narratives reveal that Muslim students exert a sense of individual autonomy and choice about what to accept or reject within the school, notwithstanding acculturative pressures exerted by parents. Therefore, their acculturative patterns differ from that of their parents and the larger Muslim community and merit attention. Further, there is tremendous within-group diversity in terms of ethnicity, nationality, culture, the associated values, and reasons to migrate to U.S. among Muslims. Therefore, one should expect a large variation among Muslim adolescents in acculturation to the American culture and their parents' native culture. However, no studies to date have empirically established a link between acculturation and educational outcomes and psychological distress for Muslim high school students in U.S.

On the other hand, there is a growing literature on the relationship between acculturation to both American and native culture and school outcomes and mental health of immigrant adolescents. In a study with Soviet Jewish adolescents, Trickett and Birman (2005) identified that American acculturation had an adaptive value in the school, whereby higher levels of American acculturation was found to be positively related to various school outcomes such as better grades, fewer absences, and greater sense of school belonging. A similar pattern was found for Mexican American high school students where higher American acculturation predicted their

academic achievement (Lopez, Ehly, Garcia-Vasquez, 2002) and educational and career expectations (Ramos & Sanchez, 1995).

Further, in a study of Soviet Jewish refugee adolescents in Maryland, Birman, Trickett, & Vinokurov (2002) found that both high American and Russian acculturation predicted reduced loneliness in these high school students. The below quote by a female Muslim youth during focus groups conducted by the Principal Investigator (PI) elucidates that at first impression her school peers saw her as a social outlier because she wore the hijab, but acculturation to the American culture, including been able to speak English without a foreign accent, was instrumental in her becoming a part of the social network at school.

“The people at my high school they were really sweet...and my brother, he would tell us about like, what they would talk about. They’d always talk about religion and like, and everyone would be very open to it, even the teachers they were so sweet at that school. So, and we like fit in, even I fit in, fine after people realized I was normal (giggling).” (Palestinian female)

Ashmeet: You say normal, like you know, what would that be?

“Like when I start talking like everyone expects me to have like an accent, like a foreign accent, or you know, something funky in my life, but once they realize that I’m like, just like them except I believe in like, like I have different values, like we still like the, like we like the same things. But that’s what, I don’t know, they just, we’re all like, they realized that I was normal.”

Therefore, based on the above reviewed literature and focus group discussions, I hypothesized that Muslim high school students with higher level of American acculturation will have higher academic achievement and expectations, and lower psychological distress than those with lower American acculturation. In addition, similar to Birman et al.’s (2002) finding on Russian acculturation and psychological outcomes, I predicted that Muslim adolescents with higher levels of native culture acculturation will have lower psychological distress.

Gendered Experiences of Islam in Public Schools

Islam can be an extremely gendered issue when it comes to immigration and schooling because of norms around gender equity, including how Muslim females dress (Bigelow, 2008;

Zine, 2006). In the focus group discussions, both male and female participants revealed that the practice of wearing the hijab amplified experiences of discrimination for female Muslims. In the words of a male focus group participant,

“Right when they [girls] walk into a room, they’re being judged. In the airport, they’re judged. Even though it’s not them.” (Arab male)

At the same time, the cultural values and traditions of the families of some female Muslim students also play a decisive role in their educational aspirations and how stressful school is for them. In her ethnography of Yemeni American high school girls, Sarroub (2001) describes that although many girls were married in sophomore or junior high year, they went to great lengths in keeping their marriage a secret at school. In addition, they saw no point in wasting time at school by studying hard when they wouldn’t be allowed to go to college by their families because of cultural norms. Further, certain school practices such as sharing gym with boys were particularly stressful for these girls. Some of them enrolled in gym classes for 4 years, failing it each time because they did not dress in gym clothes or participate in class, a situation exasperating for both them and their teachers. Further, the literature suggests that widely held assumptions of early marriage and no-careers constrain teachers’ responses to the educational needs of Muslim females (Bhatti, 2006; Shah, 2006; Zine, 2001, 2006). A male focus group participant ruminates,

“I think it’s harder to be a Muslim girl. We all don’t look Muslim. But to wear an outward symbol is different. It takes a lot of dedication and courage. I feel like it’s easier to be a Muslim guy.” (Indian male)

To sum, educational outcomes, career expectations, and psychological stress in female Muslim adolescents’ may be adversely affected by several aspects of the school environment which are not relevant contributors for Muslim boys. Therefore, in this study, I predicted that

female Muslim adolescents will have lower academic achievement, educational aspirations, and higher psychological distress compared to Muslim boys.

Environmental Contributors to Academic and Psychological Outcomes

As described in the above sections, certain individual qualities of Muslim adolescents are likely to be associated with their academic achievement, educational aspirations, and psychological distress. However, as the ecological framework suggests, besides their personal characteristics, how individual students' perceive the environment at their school is also likely to influence the educational and psychological adjustment of Muslim high school students. Below, I review the literature on three school climate features – acculturative hassles, perceptions of teacher support, and structural support at school for religious practices – along with the relevant findings from the focus group discussions conducted by the PI.

Acculturative Hassles

Immigration and minority status related experiences at school can be seen as occurring within the broader context of acculturative stress. Gil, Vega, and Dimas (1994) point out that research has too often confused the distinction between acculturation, which is the ongoing adaptation and cultural change that occurs when two distinct cultures come into contact with one another, and acculturative stress, which focuses on the strains/stressors associated with the acculturative process. Existing literature on ecology of immigrant adolescents considers school as a critical acculturative context for adolescents and calls for an analysis of the challenges, stresses, and coping responses in that context (Trickett & Formoso, 2007). Especially for an immigrant adolescent, the school context in the U.S. can be an influential source of strain, including language problems, discrimination, differences in acculturation with parents (for examples see Gil et al., 1994; Vinokurov, Trickett, Briman, 2002) and peer issues (Vinokurov et al., 2002). During adolescence, these stressors are exacerbated as they add to the normative

challenges of this developmental period (Smetana, Campione-Barr, & Metzger, 2006). There is research to support that acculturative stress increases the likelihood of depression (Hovey & King, 1996) and problem behaviors, including drug and alcohol use in Mexican adolescents (Gil, Wagner, & Vega, 2000). However, the construct of acculturative stress has not been studied for Muslim students attending American public schools, despite the literature suggesting that they face acculturative stress from several sources in school such as discrimination, relations with peers, and language hassles.

In a study with Arab American adolescents in Detroit (85% of whom were Muslims), Ahmed et al. (2011) found a strong predictive relation between high acculturative stress, including perceived discrimination, and psychological distress of these adolescents. Besides discrimination, peer relations at school can be an additional source of acculturative hassles for Muslim adolescents (Zine, 2001). The below quote from a focus group participant reveals his struggle to “fit in” with the non-Muslim peers at school and how psychologically uncomfortable these social relations became after a while.

“I just wanted to fit in going into high school. But I was still that really shy kid. And then slowly, I got pressured to do stuff. No one really pressured me, but it was there. And it was my chance to make friends and really gain some social skills. So I got pressured. I started pretty early with the partying and stuff. Got in a lot of trouble with the law and my parents. And with that, it got to about senior year and I didn’t really hang out with a lot of the Arabs or Muslims cause they were a lot of troublemakers for the most part. I was kinda whatever. I was with the white kids, I was like they’re cool you know? So with that came senior year and the stuff I was doing just didn’t make sense anymore. And it wasn’t even the religion aspect; it just all didn’t make sense. It was like ‘why am I doing this? I’m not impressing anyone. Every time I tried to fit in, something always came up. I always had some problem with someone. I’m just like I’m not impressing anyone after all. So I slowly got out of it. And then I just stopped doing the partying like whatever. But I still wasn’t into my religion.” (Arab-Yemeni male)

Further, the focus group participants said that relations with non-Muslim peers were mostly cordial but superficial, limited to the level of being acquaintances. It was hard to form deep friendships with them because of differences in preference for activities such as dating, smoking, and drugs which are forbidden in Islam. The discussions also revealed that most

attempts to be a part of the social fabric of the school were deliberate, and didn't happen organically and hence, were at times quite stressful.

On the other hand, Muslim peers at school were a source of both support against these distinct acculturative hassles and an additional source of stress depending on their religious and acculturative expectations. For example, during the focus group discussions conducted by the author, a Pakistani female Muslim student described been snubbed by other Muslim (primarily Arab) students at her school because she did not wear a hijab. The other Muslims at her school saw hijab as a visible marker for Muslim females and thus "disowned" her for not wearing it.

"A lot of people, I mean I understand, like a lot of people can't tell I'm Muslim, a lot of people assume I was Hindu. And um, in my school there was a big culture clash between Arabs and um, people from Pakistan and India. I had like people, a lot of the Arabs in my school were, um, just assumed that Muslims, extremely surprised that I'm Muslim, and when they found out it was like a huge deal, cause I didn't wear a hijab and I'm not Arab which was weird. But um, the hardest thing was the Arab populations that are Muslims, like my brothers and sisters in Islam, did not see me as Muslim, it was really weird. So like going to UIC I was so happy to see, you know, people are more accepting. That was probably the hardest thing. (Pakistani female)

The above examples illustrate an ecological complexity where religious commitment and values and cultural norms are sources of discrimination and stress in interpersonal relations with both Muslim and non-Muslim peers for Muslim adolescents. Moreover, immigrant Muslim children with lower English competency or non-native English speakers might face additional acculturative hassles like not being able to understand teachers in class or peers during conversations (Oberoi, 2012). Further, stress due to these hassles was exacerbated in the absence of other supportive Muslim students at school. The focus group participants revealed that it was hard for them to find supportive other Muslims students in their schools unless they had siblings or cousins.

In addition to the above sources of acculturative hassles, the focus group discussions with the Muslim youth revealed another dimension of acculturative hassles at school – their choice of

religion. The Muslim youth interviewed highlighted that merely being a Muslim or identifying as a Muslim in a mainstream public school posed distinct acculturative stresses for them. For instance, one of the recurrent themes in focus group discussions with Muslim youth was that they all felt a responsibility of representing Islam in a positive light to their school mates and teachers because of negative image of Islam after 9/11 and also because they might be the only Muslims their school mates would ever know. To illustrate:

“I think the hardest thing about my high school, um, like dealing with things in general and being Muslim there, is that I was often asked to speak on behalf of all the Muslims, like in the world (laughter) like I know everything. Oh, I had to censor everything I said, like I really did. I felt like everything I said was censored, like I would be thinking, like, the language you use it’s very uh, it says a lot about you, and if you’re representing a whole group of people you have to be like, you have to perfect yourself as much as you possibly can, so you can’t be, you know I want to just swear at them and yell at them and call them jerks but like I can’t do that, you know, you have to just monitor yourself and try to be, I think being patient with them is the hardest part. So, you know, that doesn’t necessarily go both ways they have no problem offending me sometimes.”
(Syrian Arab female)

Additionally, their religion was brought to the forefront by others in certain situations at schools most of the time and not by their will. Further, Muslim youth felt challenged at times to act a certain way to represent their religion positively even when faced with discriminatory or instigating incidents and/or comments. In the words of one focus group participant:

“It just got overwhelming after a while like, standing in lunch lines you have to explain like five times a day what you do, why you pray, why you do this. You know, it’s kind of annoying.”
(Syrian Arab female)

To sum, in line with the ecological approach, this study identified several sources of acculturative hassles for Muslim adolescents in public schools – English competency, discrimination, social relations at school with non-Muslims, and certain challenges unique to their choice of religion. The below quote from a focus group participant highlights how stressful the public school environment could become at times for Muslim students:

“It was the environment that made all the difference. Like I was saying, I felt like if I was in that environment for much longer, there was only so much I could take. It would have reached a threshold. It was the people I surrounded myself with that was number one. Because in high

school none of my friends were Muslim. The Muslims that were there too, they had already fallen victim to the whole social scene. So I didn't really feel like I can lean on them or rely on them to keep me in check."

As described above, the literature has established a link between acculturative stress and psychological distress among Muslim youth (e.g. Ahmed et al., 2011) and this study tried to replicate this finding. However, unlike other studies on Muslim adolescents, in this study acculturative hassles were assessed through Lazarus and Folkman's approach (1984) which conceptualizes stress as emerging from person–environment transactions and differentiates between the occurrence of an event and an appraisal of its stressfulness (including perception of threat, loss, or challenge and degree of control over the event) by the individual. The measure of acculturative stress used in this study independently asked about a) whether an event has occurred, and b) if it did occur, how stressful it was perceived to be (Mullis, Youngs, Mullis, & Rathge, 1993). An ecological implication of this approach for measurement is that it allowed treating frequency and severity as two different components of stress and assessing their shared and unique contribution to the study outcomes unlike earlier studies which confound occurrences of hassles and distress reactions to them (except Vinokurov, et al., 2002). Therefore, I hypothesized that more and severe experiences of overall acculturative hassles will be negatively related to psychological distress in Muslim students attending American public schools.

Although, literature has established acculturative hassles as a predictor of mental health and school outcomes like school belonging (e.g. Vinokurov, et al., 2002), the link between hassles and academic performance is inconclusive. However, perceived discrimination, which is one of the acculturative hassles faced by Muslim youth, is predictive of academic underachievement among Latino adolescents (e.g., DeGarmo & Martinez, 2006) and African American adolescents (e.g. Steele, 1998; Thomas, Caldwell, Faison, Jackson, 2009). But research has not addressed the above relationship among Muslim adolescents. This study

addresses this gap in the literature by studying the relationship between acculturative hassles and academic achievement and educational aspirations among a group of high school Muslim students. Specifically with respect to educational outcomes, I hypothesized that both frequency and severity of overall acculturative hassles will be negatively related to academic achievement and expectations in Muslim students attending American public schools.

Perceptions of Teacher Support

The issue of teacher support is of particular importance in the school adaptation of Muslim students because higher levels of teacher support are related consistently to multiple indices of high school students' academic adjustment such as grades, academic aspirations, and academic efficacy (Brand et. al., 2003) and school satisfaction (Zullig, Huebner, & Patton, 2011). Brand et al. (2003) also found that students had higher levels of self-esteem and lower levels of depression in schools with higher teacher support. Although a few studies have addressed relations with teachers for Muslim students (see e.g. Abbas, 2002; Bhatti, 2006), none have specifically assessed the issue of teacher support. However, many studies suggest that Muslim students face overt and subtle forms of racism and discrimination from teachers in public schools and feel that their teachers' responses to their academic needs are hindered by the stereotypes and misconceptions about Muslims (see Oberoi, 2012 for a review). In a study of high school Muslim students in the New Jersey area (Sheikh, 2009), participants mentioned experiences of bias and discrimination in school, ranging from innuendos to adult-enabled harassment. Not surprisingly, when asked if participants would seek help from school staff if they had a problem, all of the participants stated that teachers would be the least likely source of support. Similarly, during the focus group discussions conducted by the researcher, some

Muslim youth suggested that that they were differentially treated by their teachers in the classrooms as well as outside (e.g. football games) because they were Muslims.

“They were very mean to me. Very, very mean. They’d always threaten me with detention and I did nothing wrong. It was very irritating. And no one would believe me except for the students cause they witnessed it, but no, none of the other authorities would believe me. They would side with the teachers.... Um, well it was more towards their like, their attitude towards me. They were really, really like, one time you know I was in a, we were in class and we were reading something. And there were these two boys that kept on giggling right next, like they were like in the next row, and she, the teacher thought it was me. And I do not sound like a guy when I laugh (laughter). And she just blamed it on me and it clearly sounded like two guys laughing and so she kicked me out into the hallway. And yea, it, it, I had a bad experience with them” (Syrian female).

“Not necessarily comments but it would be like, I guess it could be in my own saying but I guess the way he (football coach) would act sometimes just like he would be a lot more friendly to other players. But I mean I had plenty of coaches that were very friendly to me. But like I said it’s like 90% white people. They were mostly Caucasian Christians.” (Turkish Male)

They also felt that their teachers had a homogenous, ahistorical, and acontextual perception of their religion and its associated cultures. Some of them found this to be quite frustrating as it was a reflection of how they are viewed by the mainstream American society. Moreover, some studies have mentioned a lack of academic support from teachers including teachers’ unwillingness to help them academically, accommodate their needs, and relatively more placements in ESL classes and non-collegiate tracks (Bigelow, 2008; Kassam, 2007; Keaton, 2005; Zine, 2001, 2006). This is perceived as a form of implicit, subtle, and institutionalized forms of discrimination towards Muslim students with adverse consequences for their academic achievement and careers.

However, during focus group discussions Muslim students also reported that some teachers indeed support their efforts at school to practice Islam. A quote from a focus group participant illuminates that Muslim students are able to discern which teachers were supportive of them and others who perceive them differentially:

“I had, our like Club teacher was like my friend, like we were all really close to her and she was the most liberal. Like we knew like which teachers don’t care that we’re Muslim, don’t care

anything about us. We knew like who they were and we knew like the people who are more liberal, who they were. We could totally tell between the teachers. (Pakistani female)

Some teachers were reported as allies by the Muslim students and also a source of considerable support not just for their academic needs but also for their religious needs. But the students had to seek out and form relations with such teachers every school year.

“In terms of like praying, if I ever needed to pray, I never approached really approached my principal or anything. I was more, I was closer to my teachers more, and so, every year I would, uh, I would ask one of my teachers who would have the same lunch as me if I could use his room or her room for like a little bit. It’s funny because every single year, every single gym teacher, every single teacher that I had I would have to explain to them why I pray five times a day, what Ramadan is and like, it kinda, like, I guess it helped me be a little more patient but it would have been nice to just have everybody just understand like you know.” (Egyptian female)

Thus, the above examples illustrate that some Muslim students felt discrimination not only through personal interactions but also via discriminatory disciplinary practices of certain teachers. However, they also reported some positive interactions with teachers, suggesting that teacher support varies from teacher to teacher and across schools for these students. Therefore, this study assessed Muslim adolescents’ perceptions of support from their school teachers. Specifically, I predicted that Muslim students who report more supportive relations with their teachers will have higher academic achievement and expectations and lower psychological distress compared to students who report lower perceived teacher support.

Structural Support for Islamic Religious Practices at the School

From an ecological perspective, the availability of supportive social settings in schools is an important potential environmental resource for Muslim students. Muslim students and parents express that accommodations of their religious practices in public schools are a matter of both fundamental rights and developing a spirit of tolerance and respect (Collet, 2007; Hoot, Szecsi, & Moosa, 2003; McCreery, Jones, & Holmes, 2007). However, there is considerable variation in the ways schools respond to Muslim students’ needs. The literature agrees that some

requirements (e.g., prayer at specific times, fasting during Ramadan, gender interactions) can be complex, making accommodations difficult (Haynes, 2004). On the other hand, some scholars argue that most of the time, there is a token willingness to accommodate Muslim concerns (see Azmi, 2001 and Zine, 2000, 2001). Many Muslim students have had to organize to get their schools to provide accommodations, particularly through Muslim Student Organizations (Zine, 2000). Similarly, Muslim youth in the focus groups done by the PI reported that they were able to find considerable support and camaraderie at the Muslim Student Association (MSA) once they started attending university.

“I was like wow these kids (MSA members at UIC) are really cool. So, slowly from there I got to know more people. That’s how I got close with MSA. I really felt like I fit in somewhere, where I didn’t have to impress people anymore. Through them, I became more outgoing, more like I can just express myself, by myself and not try to be someone else.” (Arab male)

On the other hand, in schools where Muslim students were very few in number (or even the only one) and did not have formal organizations like the MSA to advocate for them, they adapted by using forums like “Diversity Council” to rally for accommodations like a private prayer room. Further, as the experiences of a female Muslim student described below exemplify, in some cases, being able to accomplish some form of school structural support did not guarantee that it will be sustained, which meant that some Muslim students had to constantly negotiate structural supports at school during the school year.

Arab female: “It was kind of like a separate mission every year to get a room to like pray in. I felt that I had to start back at square one.

Ashmeet: every year?

Arab female: Yea, it was kind of annoying.

Ashmeet: Why, because the principal would change?

Arab female: “No, actually, it was weird. The principal knew me by name and face because I was like a really active member of this club, Diversity council, so I figured through this club I should be able to get what I want. It was much easier said than done. So like I, I started the first year, I went to the office, like the whatever, like near the principal’s office but on the

other side of campus, it was two like different campuses. And, and they gave me like a room to pray over there but most of the time I'd have to find somewhere else because (inaudible) it was like a conference room or something. And then the year after that I went to like in the library, no, in like the student resource center or whatever they had this little shady room in the back. But it was like, used for conferences also but it was more, it was easier to access like it wasn't used that often. But I remember I always felt uncomfortable to use it cause there was like, right next door was like a study hall, and there was like, the window would open, it would be like wide open, I'd be like this is awkward, cause like people can see me while I'm praying. Um, and then I ended up, what I found what was easiest was like, so my senior year, I wasn't, they refused to give me any room to pray, because they decided um, I can't be in a room unsupervised. I'm like, you can sit there, I don't care. It doesn't really matter but um, what I ended up doing is just, I used a teacher, like a Latin teacher, he's like, you can use my classroom at lunch. You know he had the same lunch period as I did, so I ended up using his room for that year, but, um, it was like really annoying. Cause the thing is there wasn't like a demand for it, it's not like there were five other people who also had the same situation.

As the above first-person example illuminates, even the meaning of 'accommodation' varied widely and the implementation of accommodations for religious needs of Muslim students by public schools is similarly inconsistent. Thus, structural supports at school like a room to pray or a MSA serve as resources for Muslim students to not just practice their religion but also to feel a sense of belonging to the school. In this study, I used an ecological form of assessment for structural supports which asks the students, a) if a structural accommodation is present and b) is it important for them to have that accommodation. Hence, I hypothesized that Muslim students who have more number of structural supports at their school to accommodate their religious practices will have higher academic achievement and expectations, and lower psychological distress than those students whose schools have fewer supports. I also hypothesized that those students who report the supports as more important will have higher academic achievement and expectations, and lower psychological distress than those students who rate them low in importance.

Interactions between Gender and Acculturative Hassles and Teacher Support

Based on the above literature review and focus group findings, I propose that student perceptions of the environmental forces of acculturative hassles and teacher support differently

affect the three outcomes – academic achievement, educational aspirations, and psychological distress among male and female Muslim high school students. Below I present some exploratory research questions on these interactive effects along with supportive literature and focus group findings.

In this study, I explored the interaction of gender by number of acculturative hassles because both the literature and the focus group findings suggest that Muslim girls face more acculturative hassles like discrimination because of wearing hijab and strongly regulated dress and gender norms. Simultaneously, some of these hassles like discrimination are more severe for Muslim girls (Zine, 2006); hence, I also examined the gender by severity of acculturative hassles effect on academic achievement and expectations, and psychological distress among Muslim adolescents. Thus, this study explored the hypothesis that the relationship between frequency and severity of acculturative hassles and academic achievement and aspirations, and psychological distress will be stronger and more negative for females than males.

Further, the literature argues that Muslim girls are more often differentially treated by teachers in public schools because of existing stereotypes of early marriage and no careers for them (Bhatti, 2006; Zine, 2006). Therefore, this study tested a gender by perceived teacher support interaction to see if effect of teacher support on academic achievement and expectations, and psychological distress differs among male and female Muslim students.

Current Study

To sum, given that Muslim communities are fast becoming a part of American society, it has become necessary for those who work with this population (i.e., school psychologists, counselors, therapists, and educators) to understand the diverse contexts of Muslim children, in particular Muslim *adolescents*, as they grow and develop into young adults. Adolescence is itself

a challenging period involving peer pressure, physical and emotional changes, and parental expectations. For Muslim adolescents, it is further confounded by Islamic beliefs and values. Islam presents a way of life for Muslims that may present significant additional challenges for Muslim adolescents.

As stated earlier, this study examined the following three research questions. The associated hypotheses corresponding to each question are listed alongside:

Research question 1. What is the relationship between individual characteristics of Muslim adolescents particularly, gender, religiosity, and acculturation and their academic achievement, educational aspirations, and psychological distress?

Specific hypotheses. The first hypothesis related to this question (H1) is that adolescent Muslim girls will have lower academic achievement, aspirations, and greater psychological distress than Muslim boys. The second hypothesis (H2) is that Muslim students with high religiosity will have higher academic achievement and expectations and lower psychological distress in contrast to Muslim adolescents with low religiosity. The third hypothesis (H3) is that Muslim students with high American acculturation will have higher academic achievement and expectations and lower psychological distress in contrast to Muslim adolescents with low American acculturation. The fourth related hypothesis (H4) is that Muslim students with high native culture acculturation will have lower psychological distress in contrast to Muslim adolescents with low native culture acculturation.

Research question 2. What is the relationship between school environmental characteristics, in particular acculturative hassles, perceptions of teacher support and structural support for religious practices, and the study outcomes – academic achievement, educational aspirations, and psychological distress among Muslim adolescents?

Specific hypotheses. The first hypothesis related to this second research question (H5) is that Muslim students attending American public schools who report more and severe acculturative hassles will have lower academic achievement and expectations, and higher psychological distress. A second related hypothesis (H6) is that Muslim students who report more supportive relations with their teachers will have higher academic achievement and expectations and lower psychological distress compared to students who report lower perceived teacher support. Lastly, the third specific hypothesis related to this second research question (H7) is that Muslim students who perceive structural supports at the school to accommodate their religious practices higher in number and importance will have higher academic achievement and expectations and lower psychological distress than those who do not perceive them as few and less important.

Research question 3. How do interactions between gender and student perceptions of their school environmental features impact the academic achievement, aspirations, and psychological distress among Muslim high school students?

Specific hypotheses. The hypothesis related to this research question (H8) is that the effect of student's perceived support from teachers and frequency and severity of acculturative hassles at school on academic achievement, aspirations, and psychological distress will vary depending on the student's gender.

Method

Sampling

High school students (grade 9 to 12) of both genders who self-identified as Muslims were recruited. Only those students who reported attending public high schools and not any kind of private schools were recruited. Participants were limited to the residents of the state of Illinois. Participants were recruited through two primary means in tandem: a) through organizations serving Muslim youth including community based organizations (CBOs); and b) snowballing. The purpose of using these techniques was to recruit participants from various cultural and ethnic groups of Muslim youth and attending different public schools to seek variation in individual characteristics and school environments.

Contact was made with several CBOs serving Muslim youth for example, Muslim Youth and Family Center of Orland Park (see list in Appendix B), some of which were also ethnicity specific, for example, the Arab American Family Services. Also, mosques that have Islamic weekend schools or other youth programs were contacted to see if they would allow recruitment flyers to be posted on their sites. Only two mosques out of ten that were contacted allowed recruitment posters to be distributed at their weekend activities for Muslim youth. One of them allowed the researcher to distribute the surveys at their weekend school and also during one of the special seminars for youth. None of the CBO organizations (see list in Appendix B) agreed to support the research even after months of conversations with them.

Besides American born Muslim adolescents, several attempts were made to purposefully recruit first generation immigrant adolescents to capture variation in acculturation and acculturative hassles experienced. For example, Muslim adolescents born in U.S. might not report language and cultural barriers but those who migrated recently to USA might report such

as acculturative hassles. To access first generation Muslim students, contact was made with several CBOs serving immigrant Muslim populations such as the Muslim Women Resource Center in North Chicago serving refugee Muslims populations. However, recruitment could not be initiated through these immigrant serving CBOs as none of them had an actively running program targeting high school children. Further, they also did not allow recruitment posters to be posted at their sites. Consequently, first generation and recent immigrant students are underrepresented in this sample which did not allow for any further exploration of the contribution of generational status to the study outcomes.

The primary source of participants was a snowballing technique that recruited Muslim adolescents attending Chicagoland area high schools. Existing members and presidents of Muslim Student Association (MSA) at high schools were contacted for participation. A list of high schools in Chicago and surrounding area which have a MSA was developed by asking current members of MSA at UIC, DePaul, and other Chicago universities (see list in Appendix B). Additionally, each participant who took the survey was also asked to refer other Muslim adolescents who would also be eligible for the study. Some MSA presidents gave the researcher contact details of MSA presidents of other high schools that they knew of. Thus, the majority of the participants (70%) were recruited through MSA members and their friends at various high schools.

Finally, MSA members at UIC were contacted to recruit younger siblings of the university students. Interested UIC students were asked to inform their younger siblings, cousins, and friends who are in high school. These students were then personally contacted for participation in the study. After explaining the purpose of the study over phone to them, the survey packet and an envelope with return address and stamps was sent to them via their elder

contact at UIC and they were asked to mail the completed survey directly to the researcher. About 10 surveys were collected through this method.

The desired sample size was 150 with the goal being able to recruit as many Muslim high school students as possible. In total, 190 participants were recruited, however, after data entry it was observed that information on the study measures from 177 participants was complete. Thus the final sample size for all data analysis is 177 (= N).

Participants

Table 1 presents the background descriptive details for the sample. An overwhelming majority of the sample was female (67%). Further, most of the students were 17 and 16 years old. Consequently, majority of the students were in grades 12th and 11th. Only three of the 177 students had converted to the religion of Islam. More than half of the participants identified themselves as Asian/Asian American, followed by White, and Other. In terms of other racial groups, the students listed themselves as Middle Eastern, Arabian or Arab American, Indian, Pakistani/Pakistani American, Egyptian, and Latino/Hispanic in that order. The participants attended 29 different high schools in Chicago and surrounding suburbs. The number of participants attending the same high school ranged from 25 to 1. Eight of the high schools had more than ten students each participating in this study.

Most of the participants were born in United States (81%). Those born outside of United States came mainly from India and Pakistan and had been in the U.S. on average 12 to 15 years. The length of time in U.S. for non-native students ranged from 2 months to 17 years. Further, only 6 (3.5%) of these students were enrolled in ESL/ELL program at their high school. However, for 82% of the students, their mother was born outside of the United States. The number of students whose father was born outside of the United States was even higher. The

parents were born primarily in India, Pakistan, Palestine, Jordan, and Egypt. For almost half the sample (46.5%), one of their parents had completed four year college or more. Almost all participants were bilingual. Besides English, the most frequently spoken languages by the students were Urdu, Arabic, Hindi, and Spanish. Similarly, more than one language was the norm in terms of languages spoken in the students' homes. Besides English, the other commonly spoken languages in the students' homes were Urdu, Arabic, Hindi, and Gujarati.

School Descriptions

Information about the size of the school, the number of Muslim students and structural resources present at school to support Muslim students for practicing their religion was asked from each student participant. The total school size varied from 800 to 4300, the latter being the largest high school in the state of Illinois. Similarly, the number of Muslim students attending these high schools varied tremendously ranging from 10 to 300. The number of Muslim students attending a particular high school¹ was divided by the total number of students attending that school² to get an estimate of the percentage of Muslim students attending a high school relative to the school size. Based on the above information a profile of the 29 high schools attended by the Muslim students is presented here.

Of the 29 public high schools from which Muslim students participated in this study, seven schools had about 6 to 11.6% of their total student population comprising of Muslim students and are henceforth referred to as schools with a high density of Muslim students. The percentage of Muslim students in twelve other high schools ranged from 2 to 5 percent of the total student population and are thus referred to as schools with medium density of Muslim students here on. Lastly, the remaining nine public schools had only less than 2% of their total

¹ Average of the number provided by each Muslim student participant who attended that school; strictly student reported

² This number was procured from the school's website and corroborated with student reports in the survey

student population comprising of Muslim students (going as low as 0.4%) and are thus referred to as schools with low density of Muslim students. These three groupings of schools will now be compared in terms of how structurally supportive they are of Muslim students religious practices.

With the exception of one school, all high schools with a large density of Muslim students had a formal Muslim Student Association (MSA). Further, 6 of the 9 schools with a high density of Muslim students had a designated room to pray. Similarly, only 8 of the 12 high schools with a medium density of Muslim students had a MSA but almost half did not have a designated room to pray for Muslim students. On the other hand, majority of the schools (6 of the 9) with a low density of Muslim students did not have a MSA or a designated room to pray for their daily prayers. Additionally, students attending high schools with a high density of Muslims had halal/non-pork options available for lunch in the school cafeteria. However, with the exception of a couple of schools, in none of the schools were cafeteria foods containing pork products labeled as such. In about one-third of the high schools, including some with a high density of Muslim students, Muslim students were not excused from physical activity during the month of Ramadan when they fast morning to evening. Additionally, students from all participating high schools reported that female Muslim students are allowed to wear what they prefer during physical education classes (with the exception of two schools with a medium density of Muslim students). Interestingly, in one particular high school Muslim students reported having no designated room to pray, not been excused from physical activity during Ramadan and female students were not allowed to wear what they prefer during physical education classes despite having a high density of Muslim students and a few Muslim teachers in the school.

Majority of the student participants reported that there were no formal opportunities in their school to teach others about Islam (e.g. through the diversity council). Further, none of the participating high schools had an Islamic history course. Almost all schools with a medium and low density of Muslim students did not have Muslim teachers or administrators. However, students from most of the high schools with a high density of Muslim students reported having both Muslim teacher(s) and administrator(s) in their school.

In sum, the participating Muslim students attended high schools that varied in context on several measures. Some schools had a substantial proportion of Muslim students whereas, in some others they were a very few. In most schools with a high and medium proportion of Muslim students, most of the structural supports required by them to practice Islam at school were present, e.g. a room to pray or the presence of an MSA. However, this study did not ask whether these supports were put in place in response to student demands. Further, having a larger number of Muslim students at the school did not guarantee presence of all structural supports. Most schools, however, accommodated the needs of individual Muslim students such as allowing female students to wear what they like. But schools with low numbers of Muslim students did not have structural supports in place to practice Islam.

Measures

In All measures are included in Appendix C in the format of the survey questionnaire.

Demographic information. Basic demographic information was collected on participants' age, gender, grade, whether they were born in the United States, length of stay in the United States, high school they attend, their participation in ESL/ELL programs, and place of birth of both parents. The background descriptives of the participants can be seen in Table 1. Table 2 shows the mean, standard deviations and range for the study variables.

Religiosity. Islamic religiosity of Muslim adolescents was measured using an 18 item scale adapted from The Religiosity of Islam Scale (RoIS) developed by Jana-Masri and Priester (2007). It is a Quran based instrument with two subscales: Islamic Beliefs and Islamic Behavioral Practices. Ratings are made on a 5-point Likert response ranging from “*Everyday*” to “*Never*” for the 9 items in the Islamic Behavioral Practices subscale and ranging from “*Strongly Agree*” to “*Strongly Disagree*” in the case of the 9 items in the Islamic Beliefs subscale. There is one additional behavioral item on the practice of wearing hijab to be answered by female respondents only. Two scores were calculated – Islamic behavioral practices score and an Islamic belief score – by dividing the sum of ratings for all the items by the number of items in the corresponding subscale. The Cronbach’s alpha³ (α) for internal consistency for the Islamic behavioral subscale was 0.79 and for the Islamic belief was 0.80. As can be seen in Table 2, on average the participants scored quite high on the Islamic behavioral practices subscale, $M = 4.07$, $SD = 0.62$ and even higher on the Islamic beliefs subscale, $M = 4.23$, $SD = 0.50$. Additionally, the distribution for both these measures of religiosity was skewed towards the higher end of the scale and there was low variation among the participants’ scores on these two measures of religiosity. Therefore, majority of the sample in this study had high engagement in the assessed Islamic behavioral practices and strongly believed in Islamic beliefs and values.

Acculturation. Acculturation was assessed by the Language, Identity and Behavioral Acculturation Scale (LIB; Birman & Trickett, 2001), originally measuring acculturation to Russian and American cultures independently. For the purpose of this study, Russian was changed to “your parent’s native language/culture”. It had total 61 items spread across three subscales that assessed three different components of acculturation – language proficiency, identity, and behavioral acculturation – that can be combined into an overall Acculturation

³ The Cronbach’s alpha based on standardized items is reported for all scales.

Index. Higher scores represent higher levels of acculturation to each culture measured. The Language Proficiency section asked the respondents about their proficiency in speaking and understanding both English and their native language. The Identity section asked the adolescents how much they think of themselves as American (seven items) and as being “ethnic identity” (seven items) and Muslim (six items). The Behavior section consisted of 10 questions regarding reading American literature, listening to American songs, watching American movies, and having American friends. Similarly, a corresponding set of 10 items asked regarding preference for native culture songs, movies, and friends. Ratings were made on a 4-point Likert scale ranging from “*not at all*” to “*very much*” for the identity and behavior sections and “*not at all*” to “*very well, like a native*” in the case of language competency items. In the present study, only the overall composite mean of American and native culture acculturation scores for each participant were used. The level of internal consistency among the American acculturation subscale items in the current sample was high ($\alpha = .87$); reliability for the native acculturation subscale items, however, was noticeably higher in this sample ($\alpha = .94$). The sample on average scored higher on American acculturation, $M = 3.48$, $SD = 0.33$, as compared to native culture acculturation subscale, $M = 3.03$, $SD = 0.56$. The distribution for overall American acculturation was significantly skewed to the higher end of the scale whereas the overall native culture acculturation scores were normally distributed. Further, there was more variation among the participants’ scores on native culture acculturation than among the overall American acculturation scores.

Acculturative Hassles. The Acculturative Hassles scale developed by Vinokurov and colleagues (2002) was used, with “Russian” changed to “Muslim” and “American” changed to “non-Muslim” for this study. From the original scale, a few items pertaining to dating were

deleted and 13 items specific to Muslim adolescents were added for this study, reflecting the themes that emerged from the prior conducted focus groups with Muslim youth. The final 48 items had four subscales of hassles in the school domain – English language competency, non-Muslim peer relations, discrimination, and being a Muslim – and one subscale of hassles arising from intergenerational conflict within the family domain. For each of the items, respondents were asked to answer “if this happened to you in the last six months”, and if yes, “how much of a hassle the event was” on a four-point scale – 1 (*not at all a hassle*) to 4 (*very big hassle*). Thus, both a frequency of hassles (sum of occurrence ratings) and a severity of hassles score (mean severity of the endorsed items) for the overall measure for each participant were used in this study. This allowed for an analysis of their shared as well as unique contributions to the impact of stress on the outcomes (Mullis, et al., 1993). Also, at the end of the scale, space was provided so that the respondents could specify if any of their acculturative issues were not included in the questionnaire.

The Muslim adolescents participating in this study on average reported a low number of acculturative hassles overall, $M = 15.63$. However, there was quite a bit of variation among the students in the total number of hassles reported, $SD = 8.31$. Further, the students reported on average low severity of the hassles experienced, $M = 1.88$, $SD = 0.61$. With respect to different sources of hassles, on average, students reported experiencing almost half the number of hassles listed in the family domain and non-Muslim peer related hassles in the school domain. They reported very few English competence and hassles due to their religion at school (see Table 2). Although, the Muslim students reported few discriminatory hassles but they perceived them as most severe compared to all other types of hassles. Following are the different types of hassles in

decreasing order of their mean severity: discrimination, family, Muslim related, English competency, and non-Muslim peer related (see Table 2 for exact numbers).

Teacher Support. The Teachers Support subscale from the Inventory of School Climate-Student Version (ISC-Student) developed by Brand and colleagues (2003) was used. It consisted of six items rated on to a five-point frequency metric (1 = *Never*, 2 = *Hardly Ever*, 3 = *Sometimes*, 4 = *Most of the Time*, 5 = *Always*). Four additional items were added reflecting the themes that emerged from the literature and focus groups with Muslim youth. A final teacher support score was calculated by the sum of ratings for the 10 items and dividing this sum by the number of items. The internal consistency reliability for these 10 items was high among the current sample, $\alpha = .89$. Muslim high school students in the study reported on average medium to high levels of teacher support, $M = 3.41$, $SD = 0.85$, which were normally distributed.

Structural Support for Religious Practices. This 10 item scale was developed specifically for this study to find out various type of structural support (e.g. room to pray) present at school and any accommodations made in school rules and policies (e.g. been excused from physical activity during Ramadan) to enable Muslim students to practice Islam and its values. For each of the items, respondents were asked to answer “if this is present in your school”, and “how important it is for you” on a four-point scale – 1 (*not at all important*) to 4 (*very important*). The sum of the total number of supports available and the mean of their importance score was calculated and both were used as the structural support at school predictors in this study. Muslim high school students participating in the study on average reported half the listed structural supports as present in their school but there was quite a bit of variance from school to school, $M = 7.03$, $SD = 2.63$. Further, they usually rated these structural supports as important

but not very important and again a decent degree of variation was observed in students' responses, $M = 2.55$, $SD = 1.05$.

Outcome Variables

Academic Performance. Students self-reported their academic achievement in the last school year on a 7 point scale (1 = *Mostly D's and below*, 7 = *Mostly A's*). Earlier research (e.g. Brand et al., 2003; Fетters, Stowe, & Owings, 1984) has found that students' reports of their grades are related strongly to their grades on school records ($r = .89$, in Brand et al., 2003). Majority of the students reported receiving grades B and higher in the last academic year (see full distribution in Table 1).

Educational Aspirations and Expectations. Students' aspirations and expectations for educational attainment were measured using a two item scale developed by Fuligni (1997) asking students how far they would like to go in school and how far they expect to go in school. These were answered using a five-point scale ranging from 1 (*finish some high school*), through graduate from high school, graduate from a 2-year college, graduate from a 4-year college to 5 (*graduate from law, medical, or graduate school*). Additionally, the adolescent's own value of academic success (*how important it is for them to perform well academically*) was measured using six items ranging from "not important" to "very important" to items such as "doing well in school", "getting good grades", and "going to college after high school". The Cronbach's alpha for the reliability estimate of the educational expectations scale was 0.85 among this sample. The educational expectations and value of academic success for the majority of the Muslim high school students in the sample were extremely high, $M = 4.50$, $SD = 0.53$, with very little variation among student responses. The distribution for educational aspirations was also much skewed towards the higher end of the scale.

Psychological Distress. Psychological distress was assessed using The Hopkins Symptom Checklist (HSC), including 14 items selected from the Hopkins Symptom Checklist-21, developed by Green, Walkey, McCormick, and Taylor (1988). The 14 items representing the depression and anxiety subscales of the scale were selected and seven items assessing somatization were omitted as they were seen as less relevant in an adolescent sample. These items measure symptom distress on a 4-point scale ranging from “not at all distressing” to “extremely distressing”. The internal consistency of the psychological distress scale was high for this sample, $\alpha = .89$. As can be seen in Table 2, on average Muslim adolescents reported very low levels of psychological distress, $M = 1.75$, $SD = 0.58$. Additionally, the distribution for psychological distress was much skewed towards the lower end of the scale and there was low variation among the participants’ scores on this variable.

Pilot-testing the measures. Cognitive interviewing (Beatty & Willis, 2007) of the study measures was done with two UIC Muslim undergraduates, including discussion of syntax, wording, response choices, order of items and measures. Think-aloud and structured probing were the two techniques used to generate additional verbal information from the above two respondents during cognitive interviews. For example, probing questions were used to explore how interviewees understood certain terms (e.g. ethnic identity). The aim of this exercise was to make certain that instructions and what the questions were asking was clear, that the language used was appropriate for the target population (age, religious and cultural sensitivity), and that how the question was asked was actually measuring what we had intended it to measure. Examples of modifications made in the measures are: a) removing items from the religiosity scale not relevant to adolescents like, “I give Zakah/donation” and adding relevant items like, “I attend classes and activities at mosque”; b) removing items about peer relations with opposite

sex and adding items specific to Muslim adolescents in the acculturation related hassles scale; and c) because the sample would be ethnically diverse, “parent’s native language” and “parents’ native culture” were used in the native culture acculturation scale instead of referring to one culture. Further, when reviewing whether the response options aligned with the question stem, it was felt that the original response choices for the religiosity behavior items like “I drink alcohol” of “*always*” and “*usually*” will give untrue information about alcohol use by that person. Hence, “*always*” and “*usually*” in the original response scale for Islamic behavioral items were replaced by “*everyday*” and “*most days*”, respectively.

Order of the measures. The survey opened with a screener section (are you in high school, public and self-identity as Muslim), followed by acculturation, religiosity, teacher support, structural support, hassles, distress, academic performance, expectations, and background information. The logic behind this order was that respondents should begin the survey with easier questions to get them thinking and more familiar with the questionnaire. The acculturative hassles scale was the largest measure so it was placed in the middle to offer a nice balance. Psychological distress measure was placed next because we thought it was too sensitive to have it at the end and therefore, the academic performance and expectations sections were last. However, halfway through the data collection it was noted that some students were leaving the distress, academic performance and expectations measures blank, most likely due to fatigue by the time they get to it after the long hassles scale. To avoid more incomplete surveys with no information on outcome variables, the acculturative hassles scale was placed after the short scales of distress, academic performance, and expectations. Background was the final section, as is standard.

Procedures

Participants were given a paper survey. Informed assent was obtained from the participants but parental consent was waived by the IRB to avoid parent's influence on adolescent responses. Request for parental consent to UIC IRB was made on the basis of: a) it is a one-time survey; b) identifying information is not collected; and c) the survey is built around what students are experiencing in normal educational lives and hence, is associated with minimal risk. The data was collected at a site convenient to the participants scheduled in advance, for example, during weekend activities for youth at their mosque, special seminars at the mosque, and local libraries or community centers. Simple snacks like chips and cookies were served during some of these data collection gatherings. However, a student or adult leader was asked in advance about the appropriateness of serving food at the site and what should be served. Also, the researcher always dressed modestly in business suits with full sleeved shirts and covered her head with a long scarf during these data collection episodes to respect the Islamic dress code norms for females. Further, the researcher did not offer to shake hands with male participants or make extensive eye contact in order to be mindful of Islamic gender norms.

On average, most participants took less than 45 minutes to fill out the survey. Participants with limited English ability were given the option of having survey questions read aloud to them so they could verbally respond. However, none of the participants required this accommodation. No identifying information (like name) was collected in order to keep the responses anonymous. However, limited demographic data was collected to ensure that adolescents who respond to the survey are identified in some way as: attending a public high school; and are Muslims (see Appendix C). Participants and survey measures are described in more detail next, with the statistical analyses conducted to follow.

Results

Data Preparation for Analysis

Data Cleaning and Recoding. Data was entered by the researcher and one undergraduate research assistant in Statistical Packages for the Social Sciences (SPSS) version 19.0. All data preparation, univariate and bivariate procedures were conducted using SPSS and the multivariate mixed models were run in SAS version 9.3. After data entry, some item scores were reverse scored according to the scale developers' instructions. The overall and subscale scores were then calculated for the required measures. Descriptive statistics, including frequency counts, means, variances, and scatter plots, were generated for all variables. Table 2 shows the descriptives (mean, standard deviations and range) for the study variables. Keeping in mind the recruitment method and the nature of some of the measures, several checks had to be performed before multivariate analysis could be done with the data.

Violations of independence of observations. The first step was to check for independence of observations and to take any necessary steps to control for nesting or non-independence. As described in the methods section, the students were recruited through two means: referred by a participating student and through their school's MSA. In most cases, the students were recruited via reference from their school's MSA president or a member, and thus there was an overlap between the index (referral) person and school membership for most participating students. Thus, the participating students were seen as nested within an index person as well as their school⁴. I ran box plots for each of the outcomes by the index person and school membership to observe whether the spread of the outcomes varied with the index person as well as the school. The variation in the outcomes was more pronounced for school membership than for the index person. Further, I also conducted ANOVAs (cross referral) of

⁴ see Heckathorn (1997) for more details on respondent driven sampling and its impact on analysis

each outcome measure with the index person and school membership, respectively. For all three outcomes the cross referral or ANOVA with the index person was not significant, suggesting no significant differences in the outcomes due to the index person. On the other hand, cross referral ANOVA for two of three outcomes with high school membership was marginally significant. Therefore, as a statistical caution, I decided to control for school membership as a random effect in the mixed multivariate models in order to account for nesting within schools⁵.

Checks for reliability of responses. Secondly, to check whether Muslim students going to same high school report the same structural supports for religious practices, intra class correlations (ICCs) were calculated for all items in the ‘Structural Supports for Religious Practices (SSRP)’ measure. The SSRP measure had a yes/no response type to the items inquiring about the various structural supports and hence is not a Likert scale. As such, a Cronbach’s alpha is not applicable for this scale as a test of reliability of responses of students attending the same school. The main concern was to determine that, “to what extent do the responses of the students regarding the structural supports present to practice Islam cluster within a school”. Hence intraclass correlations of the total SSRP scores of all students within a school were calculated to see how much similarity exists within the responses of students. The ICCs scores for each school on SSRP scale ranged from .68 to .72 suggesting that there is a fair degree of similarity in students’ perceptions of structural supports present at their school. This suggests that the SSRP measure is assessing not just perceptions of students but actual ecological reality when it comes to structural supports present at school for practicing Islam.

Data transformations. Third, in order to assess for violations to the assumption of normality in the item response distributions, I examined visually the skewness and kurtosis of

⁵ With random variable we control the variation; the purpose of doing random effects is that we are trying to control a source of variation which is not from individual observation to individual observation but outside of the individual.

each of the non-nominal variables in the dataset by generating scatter plots and histograms. Visual examination suggested that many of these response distributions were skewed and kurtotic; therefore, I used the Shapiro-Wilk test of normality function in SPSS to evaluate statistically whether each variable distribution was significantly different from normal. Notably, each of the outcome variables were revealed to be non-normally distributed, with all p -values < .001. For example, educational expectations had a range of 1 to 5 but its median was 4.75 (hump of the curve). Thus, it was decided that all multivariate analyses of the outcomes will be conducted with both a transformation of the outcome variable and the variable as such with the skewed distribution to gain insights on the results achieved both ways. Several transformations were conducted on the outcomes and the ones which produced a distribution closest to a normal curve was decided upon to proceed with. For educational expectations log transformation at log (6-x) seemed most appropriate and for psychological distress inverse transformation seemed most suitable. It was also decided to run logistic regressions on all three outcomes as binary variables split at their means to find the regression model with the best fit.

Bivariate Correlations

Bivariate analyses (correlations are shown in Table 3) were used to examine the relationships between all study variables. Academic performance of Muslim high school students in this study was significantly positively correlated to engagement in Islamic behavioral practices, $r = .34$, and beliefs, $r = .22$, perceived support from teachers, $r = .27$, and educational expectations, $r = .40$, of the students themselves including adolescent's own value of academic success. Similar to academic performance, Muslim adolescents' educational expectations was significantly positively correlated to their engagement in Islamic behavioral practices, $r = .20$, and strength of Islamic beliefs, $r = .22$. Additionally, educational aspirations of the students were

also significantly positively correlated with their native culture acculturation scores, $r = .25$, but negatively correlated with the total number of acculturative hassles experienced by them, $r = -.07$. All the above correlations were significant at $p < .01$ level.

Further, psychological distress among Muslim adolescents in this study was significantly positively correlated with the degree of importance they place on the presence of structural supports at school for religious practices, $r = .15$, $p < .05$, the total number of acculturative hassles experienced by them within school and family, $r = .58$, $p < .01$, and the perceived severity of the hassles experienced, $r = .43$, $p < .01$. However, psychological distress among the students was significantly negatively correlated with their levels of American acculturation, $r = -.16$, $p < .05$ and perceived support from teachers, $r = -.18$, $p < .05$.

Lastly, as can be seen in Table 3, none of the demographic characteristics of the students or measures of their school composition (proportion of Muslim students) were significantly correlated with the three study outcomes among Muslim adolescents.

Multivariate Analysis

Discreet linear regressions were conducted to assess the relationship of the predictors to each of the three study outcomes – academic achievement, educational aspirations, and psychological distress. Generational status (U.S. born or foreign born), age, school size, number of other Muslim students in school, enrollment in ESL classes, and parents' education were used as controls for each of the regression analysis. For all regressions as shown in Table 4, the following set of predictors was entered – gender, religiosity – Islamic behavior, religiosity – Islamic belief, native and American acculturation, frequency and severity of acculturative hassles, perceptions of teacher support, and the number and importance of structural support for religious practices. In addition, the following three interactions were tested for each outcome –

gender by number and severity of acculturative hassles, and gender by perceived teacher support. For testing the interactions, the continuous variables (e.g. perceived teachers support) were centered and then the interaction term was created from these standardized variables (gender*perceived teacher support).

For each of the three outcomes, backward regressions were conducted that started with all predictor and control variables in the model and then eliminated those that were not significant at $p = .05$ and the regression were run again with the new set of variables. This step was reiterated till the final and the most parsimonious model was achieved with variables still significant at $p = .05$ after controlling for all other variables. Once the final model was achieved, it was analyzed as a mixed method model controlling for school membership, where school membership was treated as a random variable. Thus, the overall model solution presented the significant predictors of the outcomes after controlling for any variance explained by the same school attended by these students (school membership) within which the participants were nested.

Model of Academic Performance. For the outcome of academic performance, I initially conducted two backward regressions – first with the outcome in its original distribution and second with academic performance dichotomized at its median (students who got mostly A's vs. all other grades of academic performance). However, it was decided that an ordinal regression instead of linear regression was more suitable for the outcome of academic performance as it represents a ranking. Thus, an Ordinal Mixed model was run in SAS to account for both the clustering of students by high schools and rank ordering of the outcome. The outcome of academic performance was set as ascending; in other words, the reference category was “mostly A's”. Model fit indicators (AIC and BIC) suggested that a better model fit is achieved when educational expectations is included as predictor. The final model with only the significant

predictors of academic achievement, their corresponding odds ratios (*OR*) and confidence intervals can be seen in Table 5. The residual variance from random effect was quite small in the final model (see Table 5).

Model of Educational Expectations. For the outcome of educational expectations, simple backward regressions were run three ways – with the outcome as a continuous variable with its original distribution, with the outcome transformed at $\log(6-x)$ and the outcome dichotomized at the median (logistic regression) to explore differences in results due to skewness of the outcome distribution. Because the results of regression on the three different forms of educational expectations were almost identical, I decided to continue using educational expectations in its original skewed distribution without any transformations for running the final mixed model controlling for school membership. The final model with only the significant predictors of educational expectations and their associated β and *SE* values can be seen in Table 6. The residual variance from random effect was quite small in the final model (see Table 6).

Model of Psychological Distress. For the outcome of psychological distress, simple backward regressions were run 3 ways – with the outcome as is with its original distribution, the outcome dichotomized at the median (logistic regression) and thirdly, after inverse transformation of the outcome. Because the results of regression on the three different forms of psychological distress were almost identical, I decided to continue using educational expectations in its original skewed distribution without any transformations for running the final mixed model controlling for high school attended. The final model with only the significant predictors of psychological distress and their associated β and *SE* values can be seen in Table 7. The residual variance from random effect was quite small in the final model (see Table 7).

Relationship of Control Variables to Academic Achievement, Expectations, and Psychological Distress

None of the control variables – generational status (1st or 2nd generation and beyond), age, school size, number of other Muslim students in school, enrollment in ESL classes, and parents' education – were significantly associated with any of the outcomes in the multivariate analysis.

Relationship of Individual Characteristics to Academic Achievement, Expectations, and Psychological Distress

H1: Gender Differences. With respect to gender differences, the hypothesis was that adolescent Muslim girls will have lower academic achievement, educational aspirations, and greater psychological distress than Muslim boys. Contrary to predictions, gender was not a significant predictor of academic performance, educational expectations, and psychological distress among Muslim adolescents.

H2: Islamic Religiosity. The related hypothesis was that Muslim students with high religiosity will have higher academic achievement and expectations and lower psychological distress in contrast to Muslim adolescents with low religiosity. As predicted, religiosity was a significant predictor of academic performance but only one dimension of religiosity – Islamic behavioral practices – was related to this outcome. Muslim students who have a more frequent engagement in Islamic behavior practices tend to have higher academic performance ($OR = 2.10$, $p = .029$) than those who do not. For example, if a Muslim student went from attending extra curricula activities at the mosque from some days to most days (as per the Islamic behavior response scale) his/her odds of getting the next higher academic grade rank increases by almost 1.1 times (for example, from B to A). Similarly, as predicted, religiosity was a significant predictor of educational expectations as well but a different dimension of religiosity – strength of

beliefs – was related to this outcome. Muslim students who had stronger Islamic beliefs had higher educational aspirations ($B = 0.29, p = .005$) compared to those with less stronger beliefs. Contrary to predictions, religiosity was not significantly associated with psychological distress among the Muslim students.

H3: American Acculturation. The hypothesis was that Muslim students with high American acculturation will have higher academic achievement and expectations and lower psychological distress in contrast to Muslim adolescents with low American acculturation. This hypothesis was partially supported. As predicted, American acculturation was positively associated with educational expectations of Muslim students such that every unit increase in American acculturation increased Muslim students' educational expectations by .46 units ($p = .002$). On the other hand, contrary to the prediction, American acculturation was not a significant predictor of academic performance or psychological distress among the Muslim students.

H4: Native Culture Acculturation. The hypothesis was that Muslim students with high native culture acculturation will have lower psychological distress in contrast to Muslim adolescents with low native culture acculturation. Contrary to predictions, native culture acculturation was not significantly associated with psychological distress among the Muslim students. Although not hypothesized, native culture acculturation positively predicted educational expectations, such that Muslim students with higher native culture acculturation had higher educational expectations ($B = .21, p = .01$) in contrast to students with lower native culture acculturation.

Lastly, although not predicted, educational expectations of the students were a significant predictor of academic performance among Muslim high school students. Each unit increase in

expectations, including importance of doing well in school, increased a student's odds of getting the next higher grade by 4.52 times ($p < .001$).

Relationship of Students' Perceptions of School Contextual Factors to Academic Achievement, Expectations, and Psychological Distress

H5: Acculturative Hassles. I hypothesized that Muslim adolescents who experience greater frequency and severity of acculturative hassles will have lower academic performance and educational expectations but higher psychological distress. This hypothesis was partially supported, such that both the number and severity of hassles was not related to academic performance and in case of educational expectations, only the number of acculturative hassles was associated with a decrease in educational expectations ($B = -.01, p = .07$). Thus, each additional acculturative hassle experienced by Muslim adolescents tends to lower their educational aspirations and importance of performing well at school. On the other hand, psychological distress was significantly associated with both the number and severity of overall acculturative hassles experienced. Muslim students who reported more and severe acculturative hassles had higher psychological distress in contrast to students who reported lesser number of hassles and less severity of hassles.

To further explore which dimensions of acculturative hassles were specifically related to psychological distress, post-hoc analysis were conducted with number and severity of four sources of hassles within the domain of public high schools – limited English competence, non-Muslim peer relations, religious discrimination, and school hassles specific to being a Muslim and a fifth dimension of family related hassles within the family domain. Students who reported higher number of hassles at school related to their choice of religion reported significantly higher psychological distress than those who experienced fewer number of Muslim related hassles ($B =$

0.10, $p < .001$). Further, higher numbers of hassles due to relations with non-Muslim peers were also significantly associated with higher psychological distress among Muslim high school students ($B = 0.09$, $p = .002$). Lastly, students who experienced more acculturative hassles at school due to limited English competence also have significantly higher psychological distress compared to students who reported fewer English related hassles ($B = 0.15$, $p < .001$).

H6: Teacher Support. The related hypothesis was that Muslim students who report more supportive relations with their teachers will have higher academic achievement and expectations and lower psychological distress compared to students who report lower perceived teacher support. As predicted, teacher support was a significant predictor of academic achievement, such that every unit increase in teacher support increased the likelihood of getting the next higher grade by 1.56 times ($p = 0.05$). However, contrary to predictions, teacher support was not related to educational expectations or psychological distress among Muslim high school students.

H7: Structural Support at School for Religious Practices. The hypothesis was that Muslim students who perceive structural supports at the school to accommodate their religious practices higher in number and importance will have higher academic achievement and expectations and lower psychological distress than those who do not perceive them as few and less important. Contrary to predictions, neither the number nor the importance of structural supports at the school to accommodate their religious practices were significant predictors of academic performance, educational expectations, and psychological distress among Muslim high students.

Interactions between Gender and Acculturative Hassles and Teacher Support

H8: Gender Interactions. The hypothesis was that that the effect of student's perceived support from teachers and frequency and severity of acculturative hassles at school on academic achievement, aspirations, and psychological distress will vary depending on the student's gender. This hypothesis was not supported by the results such that the influence of student's perceptions of teacher support received and severity of hassles experienced on the outcomes did not vary among Muslim boys and girls.

Summary

Literature review and focus group findings were used as justifications to examine the impact of both individual qualities and student perceptions of certain aspects of their school climate in trying to understand academic performance, educational expectations and psychological distress among Muslim adolescents. A series of mixed regression models then demonstrated the unique associations between multiple dimensions of religiosity, acculturation, and acculturative hassles and the outcomes while controlling for a variety of demographic covariates. Muslim students who had a higher engagement in Islamic behavior practices, higher educational expectations, and perceived themselves to be well supported by their teachers for their academic goals were likely to have better academic performance than Muslim students with lower Islamic behavioral practices, lower educational expectations, and low teacher support. Further, Muslim high school students with stronger Islamic beliefs, higher native as well as American acculturation, and fewer numbers of acculturative hassles both at school and within family reported having higher educational expectations as compared to Muslim students with weaker strength of Islamic beliefs, lower native and American acculturation, and those who face more acculturative hassles. Finally, the frequency with which Muslim students experienced

hassles at schools due to their choice of religion, relations with non-Muslim peers, and limited English capacity were a significant source of psychological distress among Muslim students attending public high schools. Thus, the results presented above provide support for assessing both individual characteristics and student perceptions of their school environment when trying to examine academic performance, educational expectations and psychological distress among Muslim adolescents.

Discussion

The purpose of this dissertation was to explore certain aspects of school experiences of Muslim students attending public high schools in Chicago and surrounding neighborhoods. Specifically, in this study I ascertained how the individual characteristics of gender, religiosity, and acculturation impact academic achievement, educational expectations, and psychological distress among a group of Muslim high school students. I also assessed the relationship between these three outcomes and the Muslim students' perceptions of their school environment pertaining to teacher support, structural support present for religious practices, and acculturative hassles experienced.

Relationship of Individual Characteristics to Academic Achievement, Expectations, and Psychological Distress

Islamic Religiosity. Similar to previous literature on Muslim adolescents in U.K. (Abbas, 2003; Bhatti, 2006), religiosity was found to be a significant predictor of both academic performance and educational expectations among high school Muslim students in this study. Interestingly, different dimensions of religiosity were related to these two aspects of school lives. Like earlier studies with church attending youth (Jeyes, 2003; Regnerus, 2000), this study found a positive relationship between higher engagement in Islamic behavioral practices and the academic achievement of the participating Muslim students. One possible explanation of this link is that Islamic behavioral practices such as attending mosque, praying five times a day, attending Sunday school and observing the Islamic norms pertaining to interaction with the opposite sex and refraining from any substance abuse (cigarettes and alcohol)⁶ might help high school Muslim students remain focused on their academic goals and avoid common teen distractions that might hamper their academic performance at school. Further, high academic

⁶ All these aspects of Islamic behavioral practices were measured in this study

performance is reinforced at religious gatherings by peers and elders. Some mosques also offer study circles called the ‘study halaqas’ to their youth members on the weekend which offer classes not just on Islamic issues but also on academic school work (Zine, 2000). Additionally, this study too found a positive significant correlation between the density of Muslim students in schools and the number of structural supports present at school for practicing Islam. Youth groups like Muslim Student Associations at school (like the ones from which most participants were recruited) can be helpful in providing academic, social, emotional, and spiritual support as well as fostering empowerment which has been beneficial in helping adolescents’ access to resources within their school and the community (Zine, 2000).

Similarly, educational expectations of Muslim adolescents were found to be positively related to the strength of Islamic beliefs such as beliefs in the completeness of Islam as a religion, following the word of Allah and obeying the Islamic teachings. This association has not been empirically addressed in the literature before and thus, explanations for this link in the existing literature are fuzzy. However, one possible explanation can be drawn from Abbas’s (2003) study on South Asian Muslim, Hindu, and Sikh female high school and first year college students in U.K. Abbas (2003) found that compared to Hindu and Sikh students for whom education took precedence over religion, Muslim students invested substantial time and energy in both school *and* religious activities (e.g. attending mosque regularly), even if it required significant added effort.

Further, compared to Hindu and Sikh students, Muslim adolescents did not regard religion as an option that they choose to exercise or ignore; instead it plays a crucial role in their lives. According to them, Islam empowered them to remain strong in the face of pressures to perform in school. During recruitment and rapport building with the community for this study,

the researcher attended several weekend school sessions and youth programs and special seminars offered in the mosques. It was observed that during these youth targeted programs, the speakers encouraged them to observe the tenets of Islam closely such as gender norms and refraining from substance abuse. Besides these, obeying and fulfilling the wishes of their parents were also portrayed as following Islam. Some speakers explicitly told students that Islam teaches them to respect their elders wishes which include performing well at school and in college later on so it is the duty (in a way, an Islamic duty) of the students to try their hardest to achieve or fulfill their parent's parents high expectations of them.

However, a causal link between Islamic religiosity and academic performance and educational aspirations of the sample cannot be drawn from this study as the students were not specifically asked if they attended study circles at mosques that also offer tutorials on schoolwork. Therefore, the positive impact of Muslim students' degree of religiosity on their academic performance and educational expectations should be interpreted keeping in mind that an alternate explanation could be that the sample was comprised mainly of academically better students who were in fact more religiously observant in general. This sample was uniformly high in religiosity which probably reflects a sampling bias, as the participants were recruited mainly from MSAs at high schools and weekend schools at mosques. Yet, the association of different dimensions of religiosity to different dimensions of academic engagement is insightful and worthy of further exploration. Future qualitative studies that specifically explore the relationship between these three correlates among high school Muslim students, including observations of weekend activities at the mosque and discussion of parents' role and expectations, might also shed some light around possible explanations of the significant association between religiosity and academic achievement among high school Muslim students.

Further, this study failed to confirm the positive link established in prior literature with Muslim youth between higher religiosity and reduced psychological distress (e.g. Ahmed et al. in Detroit, 2011 and Ward & Stuart, 2010 in Australia). The focus group discussions conducted prior to collecting the survey data also suggested that more religious involvement serves as a protective factor against distress. However, there was no significant relation between religiosity and psychological distress in this study. Overall, the students had very low distress and high religiosity scores with low variation in these scores, which might have contributed to a failure to detect a relationship if one existed. Future studies, especially qualitative ones, can explore what elements of religiosity and associated mechanisms serve as a buffer against psychological distress among Muslim adolescents.

American and Native Culture Acculturation. The findings in this study relevant to the relationship between acculturation, academic performance, educational expectations, and distress partly support the existing literature. As seen in the previous literature with other immigrant adolescents, American acculturation was positively associated in this study with higher educational expectations of Muslim students. However, unlike existing literature with other immigrant youth, American acculturation was not associated with Muslim high school students' current academic performance. Perhaps this is a reflection of the sample, where 81% were born in the United States and overall the sample was uniformly very high in American acculturation. The participating Muslim students had high English competency, identified themselves as Americans and participated in the mainstream American culture.

Though not directly associated with their academic performance, American acculturation was significantly positively correlated with students' perception of the extent of teacher support they received, which in turn was significantly associated with their academic performance.

Further, high American acculturation and academic achievement combined are likely to make the participating Muslim adolescents confident of their competence to pursue higher education and professional degrees after school. This might explain the positive relationship between American acculturation scores and educational expectations observed among this sample.

Additionally, it was found that native culture acculturation positively predicted educational expectations of Muslim high school students, which adds to the existing literature on acculturation and educational performance among immigrant youth. This is not surprising, considering that over half the Muslim students identified with the South Asian culture, which is established in the literature (Abbas, 2003) as placing a high emphasis on academic achievement and pursuing higher education post high school. Immigrant Asian and Middle-Eastern families see education as the primary mechanism to achieving the American dream(s) (Bhatti, 2006), which might be quite applicable to this study, as 90% of the adolescents in this study had at least one parent who migrated to U.S. Further, in her ethnographic study with Punjabi Sikhs in California, Gibson (1988) noted that these adolescents actively resisted the influence of the dominant culture, accommodating only in public spheres like the school to the norms of the larger society. This accommodation without assimilation helped them retain and harness the high achieving immigrant ethos cultivated within their families into high academic performance. Zine (2001) found a similar phenomenon of actively negotiating terms of confirming and resisting to the larger socio-cultural dynamics among Muslim adolescents in Canada.

However, contrary to the previous literature, neither American acculturation nor native culture acculturation was related to psychological distress among this group of high school Muslim students. A qualitative study with an ethnically diverse sample of Muslim high school students in a Midwestern state (Vyas, 2004) found that being “mixed” or bicultural was stressful

for these adolescents, as parents insisted that they adhere to Islamic and cultural traditions and not act as mainstream Americans. But the sample in the above study was primarily first generation immigrant students unlike this study's participants who were mostly 2nd generation and beyond.

Gender. Also, contrary to predictions, gender was not a significant predictor of academic performance, educational expectations, and psychological distress nor were any of the interactions of gender with teacher support and number and severity of acculturative hassles significant. There are several possible explanations for these findings. First, the positive outcomes of girls might be rooted in interactions between participants' gender and their cultural norms, including their parents' expectations from them. The sample was overwhelmingly female (67%) and South Asian (57%) in terms of cultural background. Educational achievement is deemed extremely valuable among the South Asian population (Ahmed and Szpara, 2003; Bhatti, 2006) and immigrant parents of South Asian descent (Indian, Pakistani, Bangladeshi) not only encourage but also expect their children to perform well academically and to pursue college after high school regardless of the gender of the child and religious background of the family (Abbas, 2003). In his study with South Asian Muslim females who recently started college in UK, Ahmad (2001) underscores that these young women and their families saw education as an "investment" and a necessary asset in achieving social prestige. Further, young college attending Muslim women also perceived their educational and professional achievements as a mechanism for broadening the gender attitudes of non-Muslims who confound Islam with oppression of women. Hence, female Muslim students in this study performed just as well academically and had comparable educational expectations as their male counterparts.

This similarity in the academic performance and educational aspirations of male and female Muslim high school students in this study also highlights the within group diversity among Muslims in terms of cultural backgrounds and norms around gender roles and expectations. Studies on female Muslim students belonging to more restrictive cultures such as Yemeni (see for example, Sarroub, 2001), where girls are married off, soon after marriage report an apathy for performing well at school. Similarly, high school attending South Asian Muslim girls from UK in Abbas's study (2003) saw patriarchal cultural values but not Islam as limiting their freedom and educational ambitions. However, they report that their parents and the associated community have fused the two to perpetuate patriarchal power dynamics in more gender equivalent Western culture.

Thus, the findings of this study present a picture of their school experiences which differs markedly from that portrayed in the prior literature. Prior literature portrays female Muslim students as having more negative experiences at school and thus as more likely to perform less well academically and professionally later on. This study presents findings that suggest otherwise, where female Muslim students reported performing academically just as well as their male cohorts and had comparable high educational and professional expectations. Further, they did not report more acculturative hassles overall than males, including peer relations and discrimination at school. Additionally, their appraisal of these acculturative hassles were not more severe than those reported by their male counterparts. This deviation from the earlier literature highlights the need for future research with groups of Muslims diverse in cultural orientations (South Asian, Middle Eastern, African), socio-economic class, race, Islamic denominations, and different migratory motivations (refugees vs. immigrants). Such mixed group or population specific studies will help explore the contribution of individual level coping and

adaptation, and larger community level forces such as cultural context in a students' academic engagement and psychological well-being.

Relationship of Students' Perceptions of School Contextual Factors to Academic Achievement, Expectations, and Psychological Distress

Acculturative Hassles. The literature reported that Muslim students experience acculturative hassles from various sources including discrimination, peer relations, and challenges due to their choice of religion at school (Ahmed et al., 2011; Oberoi, 2012; Zine, 2001). This finding was further elaborated in this study as Muslim students who reported more and severe acculturative hassles also had higher psychological distress. In fact, acculturative hassles were the only significant predictors of psychological distress among this group. On further investigation it was found that non-Muslim peer relations, limited English competence, and challenges due to being a Muslim at school were the sources of hassles that had a significant association with higher psychological distress. These findings also confirm focus group findings in the pilot study around challenges faced at school. Existing literature has established that Islamic beliefs and way of life along with students' cultural values present an array of complex social pressures when it comes to mainstream teen activities such as peer relations, dating, drug and substance use, school related activities, dress code, and diet (see Oberoi, 2012 for a review). Academic and peer pressure are common stressors noted by Muslim students attending public high schools in New Jersey (Sheikh, 2009). In this study, peer pressure with respect to drinking, partying, drugs, and being popular were named the most difficult and challenging issues. The current study elaborates this finding further by establishing that this peer pressure is not just stressful but is also associated with symptoms of higher psychological distress among high school Muslim students.

Additionally, this study was unique in its examination of the association between acculturative hassles and academic performance and expectations among high school Muslim students. Based on the literature with other immigrant youth groups (Gil et al., 2000; Vinokurov et al., 2002), I expected that more frequent and severe experiences of overall acculturative hassles would be negatively related to academic achievement and educational expectations. The findings in this study partially supported the existing literature; only the number of overall acculturative hassles was associated with a decrease in educational expectations and there was no link between hassles and academic performance. Additionally, this study also found that educational expectations positively predicted their academic achievement. Although a direct association between acculturative hassles and academic performance was not established, hassles might influence academic achievement of Muslim students by dampening their educational expectations. This can be tested by conducting moderation analysis.

Teacher Support. The significant positive association between perceived teacher support and academic achievement found in this study supports the existing literature that when Muslim students perceive their teachers as unwilling to help them academically and accommodate their needs, it has adverse consequences for their academic achievement (Bigelow, 2008; Kassam, 2007; Keaton, 2005; Zine, 2001, 2006). However, contrary to the literature (Abbas, 2003; Brand et al., 2003), teacher support was not related to educational expectations and psychological distress among Muslim high school students. In her qualitative study with Muslim adolescents in Canada, Zine (2001) found that these students were not as encouraged to achieve as White students and females were treated according to misconceptions that education is not valued for Muslim females. However, this was not true for this study, as perceived teacher support ranged from medium to high for majority of the sample. A detailed look at the responses of the students

to the teacher support scale items revealed that students answered favorably to most items about academic support from teachers. The only two items where they felt a need for improvement were teachers providing examples that refute Muslim stereotypes and forming productive relations with parents. Further, the effect of perceived teacher support on the three outcomes was not different for male and female students. This contradicts the assertions in the qualitative literature that teacher support is lacking for Muslim adolescents. Qualitative research may underestimate the amount of teachers support generally provided to Muslim students.

To sum, the above findings that augment as well as contradict prior literature underscore the importance of further research on the role of school context, particularly social and structural supports at school, in the academic engagement and psychological adjustment of Muslim high school students. This study found that although most Muslim students reported experiencing a moderate to high number of hassles at school unique to their religion, they did not find them severe enough to affect their academic achievement and expectations. Additionally, students reported receiving moderate to high teacher support from most of their teachers which was significantly associated to their academic achievement. The adolescents also report moderate levels of structural support at school for their religious practices. The above findings in this way contradict prior literature that tends to emphasize that Muslim adolescents' academic performance drastically suffers at the hands of their teachers and overall lack of support from schools.

Limitations and Implications for Future Research

This study is one of the first to assess academic performance, educational expectations, and psychological distress among a large sample of Muslim high school students and makes several unique contributions to the literature. First, this study highlights how differences in

personal qualities like gender, religiosity, and native and American culture acculturation are associated with the outcomes of academic adjustment and psychological distress. Secondly, this is the first study to empirically measure systemic features like acculturative hassles experienced at school for a sample of Muslim high school adolescents and their appraisal of teacher support and structural support for religious practices at their schools. However, it has several limitations. First, this study is cross-sectional in nature and did not have a control group, therefore, no causal inferences can be drawn from the findings. Future studies with a longitudinal design following a certain group of Muslim students from their sophomore year in high school to graduation can help in confirming the direction of the impact among the variables. Also, qualitative studies could be useful in revealing the mechanisms by which individual characteristics and student perceptions of their school climate impact their academic achievement, educational expectations, and psychological distress.

Another limitation of this study is its restricted generalizability due to the methods of recruitment. The sample was not randomly selected and was limited to Muslim students attending high schools in Chicago and surrounding neighborhoods. This study solicited participants through mosques, Islamic cultural centers, Islamic weekend schools, MSAs, and Islamic conferences and seminars. There is a high probability that these methods resulted in samples with high levels of religiosity or high ethnic identity. Non-practicing or low practicing Muslims were thus not represented in this sample. Also, the sample was majority American born, and hence the experiences of first generation immigrant Muslim students were not substantially captured. Also, African American Muslim students were not represented in this sample. Therefore, although this study has one of the largest samples of Muslim high school students

studied so far, still a much larger, more diverse and preferably a randomly selected national sample will increase more statistical power of the study design and confidence in its findings.

Based on my experiences in conducting research with Muslim students, I have learned several important lessons for doing research with hard to access populations. A key determinant of a sensitive research study with this group is the engagement and participation of the community in the various phases of the research planning and application (Amer and Bagasra, 2013). In this study, several Muslim undergraduate students were involved through various stages of the research process, including planning, design, and recruitment. Key stakeholders like teacher sponsors and student presidents of Muslim Student Associations at high schools, teachers, principals and youth leaders of weekend school or youth gatherings at various mosques, imams and board of members of various mosques, and program directors at Muslim youth organizations or community organizations serving Muslims and/or Arab populations were contacted in the design phase of the study. These crucial gatekeepers of the community were told the purpose and the need for this study via emails, phone conversations, and in face-to-face meetings where the non-Muslim primary researcher was accompanied by at least one undergraduate Muslim research assistant. The endorsement of religious and community gatekeepers was sought because they could help allay fears and mistrust among potential participants. Unfortunately, religious leaders and the adults who were approached were often non-responsive to the research invitation. Fear and suspicion served as barriers to participant recruitment. These key informants had several concerns regarding why the researcher who is a religious outsider is interested in doing research with Muslim students, who is funding the research, and to whom will the research findings be reported (especially, any involvement of the government). These are genuine concerns considering the feeling of non-trust of researchers

since 9/11 (Baker, 2007). “Red flags” included questions on religion and culture in the survey. Not all efforts to gain support from the community were successful as not all the above stakeholders were open to discussions and many declined to participate or support the research even after months of conversations. However, young leaders like student presidents of school and college MSAs and youth leaders organizing seminars for Muslim youth liked this research idea and were mostly supportive of it.

Another important recommendation for conducting research with this group is the use of culturally sensitive and valid research tools (Amer and Bagasra, 2013). Prior to designing and selecting measures for the questionnaire with the high school students, focus groups were conducted with freshmen and sophomore undergraduate Muslim students at UIC (a population closer to the target sample) to find out relevant domains and correlates of their school lives, including academic performance and mental health. The focus group findings became the foundation of the study questionnaire where items were modified and new items and measures were added to capture their unique experiences. These measures were subsequently tested for relevance, construct validity, and cultural sensitivity through the process of cognitive interviewing of two undergraduate Muslim students. Lastly, the study questionnaire was shared with all community stakeholders in advance. However, some of the students still had trouble understanding certain wordings, e.g. “feeling blue” which may not be used among adolescents anymore.

Further, data collection needed to be done in a manner that did not alienate the community and yet allowed the adolescents to express themselves without fear. Therefore, it was feared that requests for identifying information may raise suspicions of the elders and asking for parental consent during informed consent might deter students from responding. For this reason,

a waiver of parental consent was sought from the University's IRB and no identifying items such as students' name were included in the questionnaire. Further, to acknowledge within group diversity, participants were allowed to self-identify in terms of ethnic identity, cultural identity of both parents, languages they speak, languages spoken at home, multiple races, and whether they converted to Islam. The researcher also tried to be mindful of gender sensitivities by waiting outside the room when male participants completed the survey. Small incentives like cookies and chips were served to the students during data collection procedure. However, student leaders were asked in advance about the appropriateness of serving food during their gatherings and what kind of food items should be served. Despite the unique methodological and ethical challenges around measure development and participant recruitment, overall this research was a rewarding experience as its findings have several important implications for the school lives of minority youth.

Conclusions

The current study added several unique findings to the literature about Muslim high school students, a very understudied population. It was one of the largest samples of this religious minority population so far addressing multiple variables. This study shows that Islam presents a way of life for Muslim adolescents that may present significant advantages as well as additional challenges. Yet, findings present an optimistic and strengths based picture of academic engagement and psychological adjustment of Muslim high school students that contradicts the common wisdom about the experiences of Muslim adolescents in public high schools. Thus, the present study highlights the necessity of understanding the diverse contexts of Muslim children, in particular Muslim adolescents, as they grow and develop into young adults.

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Table 1

Description of Participant Characteristics

Variable and Categories	n(%)
Age at Interview	
14	25(14.1)
15	34(19.2)
16	45(25.4)
17	50(28.2)
18	23(13.0)
Gender	
Female	119(67.2)
Male	58(32.8)
Race	
White	39(22.9)
Black or African American	5(2.9)
Asian or Asian American	98(57.7)
Hispanic or Latino	2(1.2)
Other	28(16.5)
Conversion to Islam	
No	174(98.3)
Yes	3(1.7)
Grade	
9 th	37(21.0)
10 th	35(19.9)
11 th	45(25.6)
12 th	59(33.5)
Country of Birth	
United States	143(80.8)
Other	34(19.2)
Enrollment in ESL/ ELL Program in school	
No	162(96.4)
Yes	6(3.6)
Country of Birth of Mother	
United States	29(16.7)
Other	143(82.2)
Country of Birth of Father	
United States	15(8.6)
Other	157(90.2)
Highest Level of Education of either parent	
Less than 8 th grade	1(0.6)
Some high school	12(7.0)
High School Diploma or GED	25(14.5)
Some College	21(12.2)

Description of Participant Characteristics (continued)

Variable and Categories	n(%)
2 year college/ Associate Degree	23(13.4)
4 year college or more	80(46.5)
Don't know	10(5.8)
Self-Reported Academic Performance of Students	
Mostly C's	2(1.2)
Mostly B's and C's	13(7.8)
Mostly B's	10(6.0)
Mostly A's and B's	69(41.3)
Mostly A's	73(43.7)

Table 2

Descriptive Statistics for the Study Variables

Variable	Mean	Std. Deviation	Scale Range	Minimum	Maximum
Overall American Acculturation	3.48	0.33	1 – 4	2.56	4.00
Overall Native Culture Acculturation	3.03	0.56	1 – 4	1.04	4.00
Overall Muslim Identity	3.91	0.31	1 - 4	1.33	4.00
Islamic Behavioral Practices	4.07	0.62	1 – 5	1.67	5.00
Islamic Beliefs Score	4.28	0.50	1 – 5	2.33	5.00
Overall Teacher Support	3.41	0.85	1 – 5	1.40	5.00
Total Number of Structural Supports Present at School	7.03	2.63	1 – 13	0	13
Mean Importance of Structural Supports at School	2.55	1.05	1 – 4	0.00	4.00
Total number of Acculturative Hassles Experienced	15.63	8.31	1 – 48	0	36
Mean Severity of Acculturative Hassles	1.88	0.61	1 – 4	.00	4.00
Educational Expectations	4.50	0.53	1 – 5	2.00	5.00
Overall Psychological Distress	1.75	0.58	1- 4	1.00	3.50

Descriptive Statistics for the Study Variables (continued)

Variable	Mean	Std. Deviation	Scale Range	Minimum	Maximum
Number of English related Acculturative Hassles at school	0.65	1.15	1 - 8	0	7
Mean Severity of English related Acculturative hassles at school	1.74	1.05	1 - 4	0	4
Number of Discrimination hassles at school	2.51	2.38	1 - 11	0	9
Mean Severity of Discrimination hassles at school	2.31	0.90	1 - 4	0	4
Number of non-Muslim peer related hassles at school	3.12	1.78	1 - 6	0	6
Mean Severity of non- Muslim peer related hassles at school	1.62	0.72	1 - 4	0	4
Number of hassles related to being a Muslim at school	3.12	1.76	1 - 9	0	7
Mean Severity of hassles related to being a Muslim at school	1.73	0.69	1 – 4	0	4
Number of Family related Acculturative Hassles	6.02	3.6	1 - 14	0	14
Mean Severity of Family related Hassles	1.87	.68	1 - 4	0	3.86

Table 3

Bivariate Correlations among the Study Variables

	Age	Gender	Converted to Islam	% of Muslims in schools	Born in the United states
Age	1.00				
Gender	.00	1.00			
Converted to Islam	.13	-.09	1.00		
% of Muslims in schools	.10	.13	-.07	1.00	
Born in the United states	-.10	-.03	-.05	.07	1.00
Enrolled in ESL/ELL program in your school	-.12	.00	-.03	.10	-.06
Mother born in the Unites States	-.03	.00	.05	.13	.22 ^a
Father born in the Unites States	.08	-.02	.21 ^a	.05	.11
Parent's education	-.12	-.05	-.12	.00	-.03
Race	.07	.03	.10	.04	.04
Overall American acculturation	-.06	.13	-.01	.00	.10
Overall Native culture acculturation	.05	.23 ^a	.04	.25 ^a	-.09
Overall Muslim Identity	-.04	.02	.00	.10	-.07
Islamic Behavioral Practices	-.01	-.09	.01	.15 ^b	.12
Islamic Beliefs	.00	-.03	-.12	.07	.11
Teacher Support	.02	.10	-.04	.02	-.04
Number of structural supports present at school	-.10	-.05	.05	.22 ^a	.00
Importance of Structural Supports	-.01	-.05	.09	.16 ^b	.05
Number of Acculturative Hassles experienced	.08	.05	.09	.00	-.09
Mean Severity of Hassles	.07	.04	.03	.01	-.07
Academic Performance in the last school year	.01	.08	-.22 ^a	.15	-.05
Educational Expectations	-.08	.00	.01	.07	.00
Psychological Distress	.08	.12	.03	-.08	-.04

^aCorrelation is significant at the 0.01 level (2-tailed).^bCorrelation is significant at the 0.05 level (2-tailed).

Bivariate Correlations among the Study Variables (continued)

	Enrolled in ESL/ELL program in your school	Mother born in the Unites States	Father born in the Unites States	Parent's education	Race
Age					
Gender					
Converted to Islam					
% of Muslims in schools					
Born in the United states					
Enrolled in ESL/ELL program in your school	1.00				
Mother born in the Unites States	-.01	1.00			
Father born in the Unites States	-.06	.45 ^a	1.00		
Parent's education	.06	-.13	.01	1.00	
Race	.05	.08	.05	.02	1.00
Overall American acculturation	-.23 ^a	.04	.19 ^b	.26 ^a	-.21 ^a
Overall Native culture acculturation	.07	.02	.10	-.08	-.02
Overall Muslim Identity	.05	.03	.00	-.01	-.10
Islamic Behavioral Practices	.07	-.03	.04	-.07	.08
Islamic Beliefs	.11	.01	-.03	.03	.06
Teacher Support	.04	-.09	.10	.05	.09
Number of structural supports present at school	.07	-.23 ^a	-.06	.20 ^a	-.02
Importance of Structural Supports	.08	-.09	-.03	.07	.04
Number of Acculturative Hassles experienced	-.01	-.32 ^a	-.27 ^a	.08	-.02
Mean Severity of Hassles	-.07	-.01	.08	-.11	-.05
Academic Performance in the last school year	-.01	-.02	.02	-.03	-.03
Educational Expectations	.11	.02	.04	-.01	.08
Psychological Distress	-.02	-.06	-.07	.01	.06

^aCorrelation is significant at the 0.01 level (2-tailed).^bCorrelation is significant at the 0.05 level (2-tailed).

Bivariate Correlations among the Study Variables (continued)

	Overall American acculturation	Overall Native culture acculturation	Overall Muslim Identity	Islamic Behavioral Practices	Islamic Beliefs
Age					
Gender					
Converted to Islam					
% of Muslims in schools					
Born in the United states					
Enrolled in ESL/ELL program in your school					
Mother born in the Unites States					
Father born in the Unites States					
Parent's education					
Race					
Overall American acculturation	1.00				
Overall Native culture acculturation	-.03	1.00			
Overall Muslim Identity	-.14	.39 ^a	1.00		
Islamic Behavioral Practices	-.15	.38 ^a	.40 ^a	1.00	
Islamic Beliefs	-.27 ^a	.23 ^a	.45 ^a	.64 ^a	1.00
Teacher Support	.25 ^a	.05	.05	.07	.04
Number of structural supports present at school	.04	.04	-.01	.17 ^b	.13
Importance of Structural Supports	-.06	.25 ^a	.26 ^a	.25 ^a	.32 ^a
Number of Acculturative Hassles experienced	-.13	.09	.14	.09	.08
Mean Severity of Hassles	-.03	.10	.12	-.09	.00
Academic Performance in the last school year	.16	.09	.19 ^b	.34 ^a	.22 ^a
Educational Expectations	.11	.25 ^a	.00	.20 ^a	.22 ^a
Psychological Distress	-.16 ^b	.03	.06	-.06	.01

^aCorrelation is significant at the 0.01 level (2-tailed).^bCorrelation is significant at the 0.05 level (2-tailed).

Bivariate Correlations among the Study Variables (continued)

	Teacher Support	Number of structural supports present at school	Importance of Structural Supports	Number of Acculturative Hassles experienced	Mean Severity of Hassles
Age					
Gender					
Converted to Islam					
% of Muslims in schools					
Born in the United states					
Enrolled in ESL/ELL program in your school					
Mother born in the Unites States					
Father born in the Unites States					
Parent's education					
Race					
Overall American acculturation					
Overall Native culture acculturation					
Overall Muslim Identity					
Islamic Behavioral Practices					
Islamic Beliefs					
Teacher Support	1.00				
Number of structural supports present at school	.18 ^b	1.00			
Importance of Structural Supports	.04	.50 ^a	1.00		
Number of Acculturative Hassles experienced	-.24 ^a	.22 ^a	.31 ^a	1.00	
Mean Severity of Hassles	-.16 ^b	-.19 ^b	.16 ^b	.45 ^a	1.00
Academic Performance in the last school year	.27 ^a	-.01	.07	-.06	-.07
Educational Expectations	.15	-.01	.10	-.18 ^b	-.07
Psychological Distress	-.18 ^b	-.07	.15 ^b	.58 ^a	.43 ^a

^aCorrelation is significant at the 0.01 level (2-tailed).^bCorrelation is significant at the 0.05 level (2-tailed).

Bivariate Correlations among the Study Variables (continued)

	Academic Performance in the last school year	Educational Expectations	Psychological Distress
Age			
Gender			
Converted to Islam			
% of Muslims in schools			
Born in the United states			
Enrolled in ESL/ELL program in your school			
Mother born in the Unites States			
Father born in the Unites States			
Parent's education			
Race			
Overall American acculturation			
Overall Native culture acculturation			
Overall Muslim Identity			
Islamic Behavioral Practices			
Islamic Beliefs			
Teacher Support			
Number of structural supports present at school			
Importance of Structural Supports			
Number of Acculturative Hassles experienced			
Mean Severity of Hassles			
Academic Performance in the last school year	1.00		
Educational Expectations	.40 ^a	1.00	
Psychological Distress	-.03	-.09	1.00

^aCorrelation is significant at the 0.01 level (2-tailed).^bCorrelation is significant at the 0.05 level (2-tailed).

Table 4

List of variables by each Research Question

	Independent variables	Outcome Variables
	Control Variables– Age as continuous variable Generational status – dummy coded; First generation immigrant (0), 2 nd and beyond (1) High School (random effect) Muslim Identity	
Research Question 1	Gender – Dummy coded; Male 0, Female 1 Religiosity of Islam continuous variable ranging from 1 to 5 Overall native culture acculturation – continuous variable ranging from 1 to 4 Overall American acculturation – continuous variable ranging from 1 to 4	Academic Achievement – continuous variable ranging from 1 to 7
Research Question 2	Frequency of Acculturative hassles – continuous variable ranging from 1 to 48 Severity of Acculturative hassles – continuous variable ranging from 1 to 4 Perceived Teacher Support – continuous variable ranging from 1 to 5 Number of Structural Support for Religious Practices – continuous variable ranging from 1 to 13 Importance of Structural Support for Religious Practices – continuous variable ranging from 1 to 4	Educational Aspirations ⁷ – continuous variable ranging from 1 to 5 Psychological Distress – continuous variable ranging from 1 to 4
Research Question 3	Gender X Frequency of Acculturative Hassles Gender X Severity of Acculturative Hassles Gender X Perceived Teacher Support	

⁷ Students' educational expectations were added as predictor for regression analysis for academic performance as outcome.

Table 5

Random-Intercept Cumulative Logit Model Predicting Academic Performance

Parameter	Estimate(<i>SE</i>)	<i>OR</i>	95% CI
Fixed Effects			
Intercept			
7 vs. 3	-12.22*** (2.11)		
6 vs. 3	-9.40*** (1.99)		
5 vs. 3	-8.52*** (1.96)		
4 vs. 3	-6.10** (1.98)		
ESL	-1.66(0.94)	0.19	[0.03,1.22]
Islamic Behavior	0.74*(0.33)	2.10	[1.08,4.07]
Teacher Support	0.44(0.23)	1.56	[0.98,2.44]
Educational Expectations	1.51*** (0.35)	4.52	[2.28,8.96]
Random Parameter			
Intercept	0.97(0.63)		

Note. *SE* = standard error; *OR* = odds ratio; CI = confidence interval.

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

Table 6

Linear Mixed Effect Regression for the Predictors of Educational Expectations

Parameter	Estimate (SE)
Fixed Effects	
Intercept	1.37(0.76)
ESL	0.43(0.26)
American Acculturation	0.46**(0.15)
Native Acculturation	0.21*(0.08)
Islamic Beliefs	0.29**(0.10)
Number of Structural Supports	-0.02(0.02)
Number of Total Hassles	-0.01(0.01)
Random Parameters	
Intercept	0.001
Residual	0.249

Note. SE = standard error.* $p < .05$, ** $p < .01$.

Table 7

Linear Mixed Effect Regression for the Predictors of Psychological Distress

Parameter	Estimate (SE)
Fixed Effects	
Intercept	1.10***(0.08)
Muslim Related Hassles	0.10***(0.03)
Non-Muslim Peers Hassles	0.09 **(0.03)
English Hassles	0.15***(0.03)
Random Parameters	
Intercept	0.02
Residual	0.20

Note. SE = standard error.* $p < .05$, ** $p < .01$, *** $p < .001$.

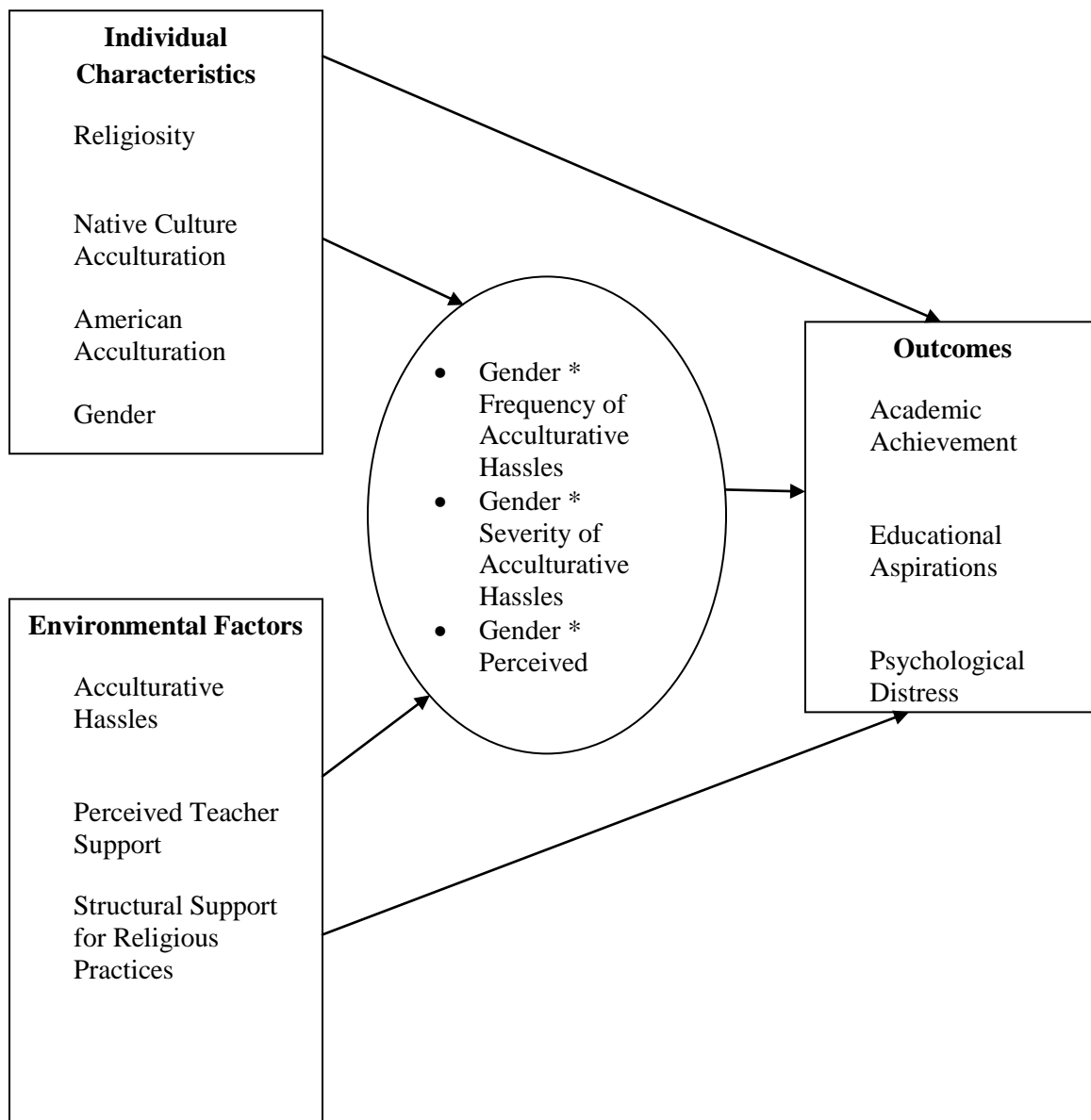


Figure 1. Model of the Relationship among Variables in the Present Study.

APPENDICES

Appendix A

Details of Focus Group Study

Specific Aims. The focus groups were conducted to gather firsthand knowledge of the school experiences of Muslim adolescents to both augment gaps in and confirm the literature. More specifically, the goals of this qualitative study were: a) exploring the role religion played in their school experiences b) identifying the domains of school lives that are relevant to lived experiences of Muslim adolescents, e.g. social relations at school; c) identifying sources of joy and stress or conflict related to being a Muslim in an American public school; and d) identifying their adaptation and coping strategies including sources of social support to handle any challenges at school that were due to being a Muslim. Based on a review of literature (Oberoi, 2012), a list of open ended questions under each of the above four domains was developed to ask the focus group participants. In order to corroborate the findings from the literature review, corresponding specific probes were also listed under the four domains. The detailed protocol of questions used to conduct the focus groups is provided as Appendix A1. This study was approved by the Institutional Review Board of the university (Protocol Number 2011-0063).

Recruitment of Participants. A convenience sampling technique was used to recruit participants for the focus group discussions. The pool of participants came from all UIC students who identify themselves as Muslims, are between 18-22 years old and graduated from a public high school in U.S.A. within the past 3 years (beginning 2011). Those who attended a private high school or did not attend high school in U.S.A. were not included. Participants with these characteristics were recruited through two different sources: a) the Muslim Student Association (MSA) at UIC and b) through snowballing.

First, the board members of MSA at UIC were contacted via email which included a brief description of the study purposes and procedures. The PI then met with 2 female representatives from MSA to better explain the study and its purposes and to get their permission to recruit study participants from among its members. After the MSA agreed to collaborate, it sent the "Recruitment Email" (Appendix A2) to all its members. The Recruitment Email asked interested participants to contact the PI directly via email or phone. One to one meetings were set up with MSA members who showed interest to participate to explain the study purpose and give details about its procedures. The PI then explained the "Informed Consent Document" with the interested participants. After signing the informed consent, the study participants were asked to fill out the "Demographic Questionnaire" (Appendix A3).

Secondly, the participants recruited through the MSA were asked to refer any other students they know who would meet the study criteria and give their email address to the PI. The PI then contacted these referred students by sending them the "Recruitment Email". Those who showed interest were contacted by the PI themselves via email or phone following which a one to one meeting was set up with them. In this meeting, the PI repeated the above recruitment process, that is, explain the study purpose and give details about its procedures, go over the "Informed Consent Document" with the interested participants, which they then signed. After signing the informed consent, the study participants were asked to fill out the "Demographic Questionnaire".

Participants. Thus, 5 male (M) and 6 female (F) young adult Muslims between the ages of 18-22 were recruited to participate in two focus groups which were separated by gender. Except for one male participant who attended Chicago city public school, all participants attended public schools in the Chicago suburbs. The sample was quite diverse in terms of

ethnicities, where 3 participants were Asian Indian (1 M, 2 F), 2 were Pakistani (1 M & 1 F), 4 Arab (3 female – Egyptian, Syrian, and Palestinian & 1 M), and 1 Yemeni male. All female participants with the exception of two wore hijab during high school years. One of them has since started wearing the hijab. The school size varied from 1200 to 5000 and the number of other Muslim students in their school varied from 5 to 6 in a school of 5000 to 100-150 in a school of 3800. Two of the students attended schools with a large Jewish student and teacher population.

Data Collection Procedure. The principal investigator who is a graduate student in community psychology was the focus group moderator. The focus group discussions were audio-recorded. The focus group discussions lasted approximately one to one and a half hour and covered topics like school and family lives, teacher and peer relations, discriminatory school practices and policies, religious and ethnic identity, interplay of Islam, their native culture and the broader American culture at school, stressful situations at school involving their choice of religion, general public and media perceptions of Islam and how they impact their school experiences. The focus groups were guided by a set of questions (Appendix A.I.); however, it was not conducted like a structured interview, so the participants were able to bring in relevant topics to the discussion. Still, as the moderator, the principal investigator made sure the students stay within the topics of the focus groups. Participants were compensated with \$7 gift certificates for a coffee store after the focus group session had ended. The audios were then transcribed and the participants' names were changed to protect their identity.

Analysis. The focus group data was analyzed using guidelines from Strauss and Corbin (1998) following a *Grounded Theory* approach. In this case, only two data analytical stages from the grounded theory approach were used – beginning with breaking down the data into specific

codes and then organizing these into meta-codes (*categories*) within and across cases. The first step in the data analysis process called the *open coding* involved fracturing the data up to the level of phrases and even words to open up or reveal thoughts, ideas, and meanings implied by them. This was done by word by word, line by line micro analysis of the qualitative data. In the second step, categories or themes were generated using the codes from the first focus group and applied to the subsequent interview. They were refined, modified and new categories were added whenever novel information surfaced.

Findings. Relevant findings are presented along with the literature review.

Appendix A1

Focus Group Questions: School Experiences of Muslim Young Adults

who Attended Public Schools in U.S.

I am trying to understand the school life of Muslim students who attended high school in US. By school life, I mean what the daily experiences were like, what kinds of relationships you had with others at school, the stresses and joys of being a Muslim, and so on. What I would like at this point is to gather some general background information and then ask for you to tell me in your own words what it's like being a Muslim in an American high school. If the situations raised in some of the questions didn't happen to you but happened to someone you know, feel free to tell me about them.

I want to assure you that this conversation will be confidential and that you will not be identified in any way when I transcribe or report the findings. At the same time, I request all of you to respect the confidentiality of your peers' responses and to keep that information confidential and not expose any information to anyone else outside of the focus group. Of course, you may choose not answer any question if you do not wish.

(1) Domain: Background questions on what it is like to be a student at that high school:

Focus Group Question: First, could you tell me a little about yourself and what high school you went to?

Specific Probes:

- a) How big was the school? How big were your classes?
- b) City/Suburb/Rural?
- c) How diverse it was?

(2) Domain: The role their religion played in the school experiences: Now I'd like to learn something about if being a Muslim mattered in what school was like for you.

Focus Group Questions:

- I. Was your religion a big deal in your school? What was the school like for a Muslim student like yourself attending it?
- II. Could you give me some examples of ways in which your religious beliefs, values, and customs played a role during a typical day at school?
- III. How respectful was your school to your religious customs? (e.g. Place to pray, dietary restriction, religious holidays, religious /cultural clothing)
- IV. Did you have an opportunity to educate or explain Islam and the culture to other students and at your school?
- V. How do you think recent socio-political events and how Islam is portrayed in the media play a role in your school life?
- VI. In your opinion as a Muslim, does it make a difference if you are a male or female? Do you find that you are treated differently?
- VII. How did culture play a role in your school life?
- VIII. Did you face cultural misconceptions of any kind?

(3) Domain: Social relations at School: Now, I'd like to know about your relationships with your teachers, classmates and friends at school.

Focus Group Questions:

- I. What were your relationships like with your teachers?
- II. What were your relationships like with other students at school?
- III. Did religion (being a Muslim) affect who you hung out with or who you were friends with?
- IV. How does family influence your choice of friendships and relationships?

Specific Probes:

- a. Did any of them act in a manner or said something that was discriminatory or stereotypical? For example, something discriminatory may be if the teacher denies or treats you differently from other students because of your religion. Stereotypical, would be if they make stereotypical comments or questions about your culture (e.g. Do you speak English, are you allowed to go outside or your home?).
- b. What kind of relationships you had with non Muslim peers?
- c. What kinds of activities did you participate with them in school? (E.g. did you have lunch with your non Muslim peers?)
- d. What kinds of activities did you participate with them after school- (For example, going out to movies, birthday parties, etc?)
- e. Did you have a strong friendship with any of your non-Muslim peers from school? (Discuss the difference between friends and acquaintances).
- f. Were there other Muslim students in your high school? How did the presence of other Muslim students affect your behavior? Did you feel any pressure to conform to Islamic and cultural norms because of other Muslim students at school? For instance, as a Latina student my friend was told she was “acting white” because she took advanced placement courses, which were primarily filled with white students.

(4) Domain: Sources of Joy and Stress or Conflict: Now I'd like to focus on those positive and challenging experiences of being a Muslim in your high school.

Focus Group Questions:

- I. What were the joys or positive aspects of being a Muslim in your school? Could you give me an example of a situation(s) that stood out as rewarding?
- II. Could you describe to me aspects of your school or school experience that you found stressful because you are a Muslim? Could you give me an example?
- III. During your time there, were there any situations that stood out as unusually difficult or challenging?

Specific Probes:

- a. Were there any practices / policies in your school that made you feel that you were different, did not belong there, or did not fit in?
- b. Were any of your school's policies or practices discriminatory? For example, placement practices or only pork containing foods at lunch.
- c. Were any of the policies/ practices conflicting with your religious and cultural beliefs? For example, gender integrated physical education classes.
- d. Did anything make you feel like hiding or compromising your religious and or cultural identity? For example, you wanted to dress differently to fit it in with

others at your school; you felt you could not bring food from home because it would be weird and people would ask questions.

(5) Domain: Social Support, how they cope or adapt: Clearly there was a lot to handle even on a regular day at school. So, now I want to know who or what helped you to keep going or what helped you to handle any challenges at school that were due to being a Muslim.

Focus Group Questions:

- I. When you had a school-related problem or issue specifically related to being Muslim in that school, or were just irritated at something related to school, what did you do? Is there anyone you turned to for support and guidance at school? Could you give me an example or two?
- II. Was there a Muslim Student Association (MSA) in your school? If so, what kind of resources did they provide you with? Were you a member of the MSA? What kind of support did you get from the MSA?

(6). Finally, imagine someone you know who is also a Muslim and is about to start as a freshman in your high school, what advice would you give to that person?

Is there anything else you might like to add on this topic before we close?

THANK YOU!!!

Appendix A2

E-mail Notice for Focus group Recruitment

Hi,

You are invited to participate in a research study conducted by Ashmeet Oberoi, graduate student, Department of Psychology, University of Illinois at Chicago (UIC). The purpose of this study is to understand the school experiences of Muslim adolescents in public schools and the role religion and culture plays in it. The research study explores what family, school, and community level factors played a role in your their school experiences, what your day at school looked like, your relations with your peers, teachers, and other school staff; how you negotiated religious and cultural identities at school and the stressors and resources at your school.

You are a possible participant in this study if you are at least 18 years of age, identify yourself as Muslim, and have graduated from a public high school in U.S. not more than 3 years ago. Your participation in this research is entirely voluntary.

If you agree to be in this research, we will ask you in one face to face focus group session with 4-5 more same gender students to answer some questions related to the above and to comment on the comprehensibility and nature of the questions as well. It is estimated that between 45-60 minutes are required to complete the focus group interview.

The knowledge from this study will be used to find out what family, school, and community level factors are relevant to school experiences of Muslim students attending public schools in U.S. The findings of the focus groups will subsequently be used in a larger study assessing school lives of Muslim adolescents attending high schools in and around Chicago area.

If you are interested, please select a date and time from those listed below convenient to you for the focus group. If you have questions, please contact Ashmeet Oberoi, principal investigator, via email at aobero3@uic.edu or Dr Ed Trickett, faculty advisor, email at trickett@uic.edu or call at 312-996-2144. The University of Illinois at Chicago is the home base for this research study.

You may contact the Office for the Protection of Research Subjects at 312-996-1711, protocol # xxxx-xxxx, for any questions about this study.

Thank you,

Ashmeet Oberoi

Graduate Student, M.A.

Community and Prevention Research Division, UIC

1007 W. Harrison, M/C 285, Chicago, IL 60607

Appendix A3

Demographic Survey for Focus Groups

Name: _____

Gender: Male Female

How old are you (in years)? _____

Do you identify yourself as a Muslim? Yes No

Did you attend high school in USA? Yes No

Your high school was: Public Private

What year did you graduate from high school? _____

Were you born in USA? Yes No

If not, at what age did you come to USA? _____

Are you a follower of Islam? Yes No

Appendix B

Potential Recruitment Sites

High Schools with a Muslim Student Association (MSA)

Colleges with a Muslim Student Association (MSA), e.g. UIC

Community Based Organizations – Youth oriented/ Ethnic Group specific

- 1) **Muslim Youth and Family Center of Orland Park (MYFC-OP):** The center focuses on programs-based physical and educational activities for males and females of all ages with the focus on the youth. Brother Ahmad Mustafa, a youth activist is the acting director for the organization.
- 2) **Muslim Inter-Scholastic Tournament (MIST) – Chicago Chapter:** A program of competitions and workshops geared towards bringing high school students together to develop leadership, communication, and other creative skills, all while gaining a deeper understanding of Islam and Muslims
- 3) **Council on American-Islamic Relations (CAIR) - Chicago** is the main office of the Illinois chapter of CAIR serving the neighboring Midwest. CAIR is the nation's largest Muslim civil rights and advocacy group.
- 4) **Council of Islamic organizations of Greater Chicago (CIOGC) Programs for Youth**
Example of programs: Leadership Development and Civic Engagement Workshops;
Illinois Muslim Action Day (last year 700 youth participated)
- 5) **Arab American Family Services (AAFS):** Arab American Family Services (AAFS), a nonprofit social service agency founded in 2001, provides caring, compassionate assistance to **(South Suburban)** Chicagoland residents, with special sensitivity to the cultural and linguistic needs of Arab Americans.
- 6) **Muslim Women Resource Center (MWRC) - Muslim Women Resource Center's**
mission is to assist immigrant and refugee Muslim women overcome cultural and language barriers, and prepare them with appropriate Occupational skills to become self-sufficient and ready to enter the job market.

Appendix C

Dissertation Measures

SCHOOL EXPERIENCES OF MUSLIM STUDENTS – A SURVEY PACKET

Hi,

You are been invited to participate in a research study conducted by Ashmeet Oberoi, graduate student, Department of Psychology, University of Illinois at Chicago (UIC). The purpose of this study is to understand the school experiences of Muslim adolescents in public schools and the role religion and culture plays in it.

Before you proceed, please carefully read the below questions:

1. Are you between 14 to 20 years old?
2. Are you Muslim?
3. Are you attending a PUBLIC high school in and around Chicago?

If you answered NO to ANY of the above questions, please stop here and DO NOT fill out this survey. Unfortunately, you are not eligible to participate in this study.

If you answered YES to ALL the above questions AND are willingly participating in this study, then I ask you to fill out the attached packet of survey. Please carefully read the instructions before you respond to any of the items.

Thank You!!

I. Language, Identity, and Behavioral Acculturation Scale (LIB)**a) Language**

We are interested in learning how living in the U.S has affected your language abilities. Please circle the response that corresponds with your language ability.

	Not at all,		Very well, like a native	
How would you rate your ability to speak <i>English</i> :				
1. at school	1	2	3	4
2. with American friends	1	2	3	4
3. on the phone	1	2	3	4
4. with strangers	1	2	3	4
5. overall	1	2	3	4

How well do you understand *English*:

6. on TV or at the movies	1	2	3	4
7. in newspapers or in magazines	1	2	3	4
8. on the phone	1	2	3	4
9. overall	1	2	3	4
10. How well can you write in English.....	1	2	3	4

	Not at all,		Very well, like a native	
How would you rate your ability to speak <i>parent's native language</i>				
11. with family	1	2	3	4
12. with friends	1	2	3	4
13. on the phone	1	2	3	4
14. with strangers	1	2	3	4
15. overall	1	2	3	4

How well do you understand *your parents' native language*

16. on TV or at the movies	1	2	3	4
17. in newspapers or in magazines	1	2	3	4
18. on the phone	1	2	3	4
19. overall	1	2	3	4
20. How well can you write in your parent's language	1	2	3	4

b) Identity

In the following questions we would like to know the extent to which you consider yourself American. To what extent are the following statements true for you?

	Not at all		Very much	
21. I think of myself as being <i>American</i>	1	2	3	4
22. I feel good about being <i>American</i>	1	2	3	4
23. Being <i>American</i> plays an important part in my life.....	1	2	3	4
24. I feel that I am part of <i>American</i> culture.....	1	2	3	4
25. If someone criticizes <i>Americans</i> I feel they are criticizing me.....	1	2	3	4
26. I have a strong sense of being <i>American</i>	1	2	3	4
27. I am proud of being <i>American</i>	1	2	3	4

We are interested in learning about your identification with your ethnic identity (e.g. Saudi Arabian, Egyptian, Yemeni, Indian, Pakistani, etc.).

28. How would you describe your ethnic identity: _____

Please answer the questions below concerning your ethnic identity mentioned above.

29. I think of myself as being (<i>your ethnic identity</i>).....	1	2	3	4
30. I feel good about being (<i>your ethnic identity</i>)	1	2	3	4
31. Being (<i>your ethnic identity</i>) plays an important part in my life.....	1	2	3	4
32. I feel that I am part of (<i>your ethnic identity</i>) culture.....	1	2	3	4
33. If someone criticizes a (<i>your ethnic identity</i>) I feel they are criticizing me.....	1	2	3	4
34. I have a strong sense of being (<i>your ethnic identity</i>)	1	2	3	4
35. I am proud that I am (<i>your ethnic identity</i>)	1	2	3	4

Please respond the following questions to the extent you consider yourself *Muslim*

36. I think of myself as being <i>Muslim</i>	1	2	3	4
37. I feel good about being <i>Muslim</i>	1	2	3	4
38. Being <i>Muslim</i> plays an important part in my life.....	1	2	3	4
39. If someone criticizes a <i>Muslim</i> I feel they are criticizing me.....	1	2	3	4
40. I have a strong sense of being <i>Muslim</i>	1	2	3	4
41. I am proud that I am <i>Muslim</i>	1	2	3	4

c) Behavior

We are interested in how much you take part in American and your native culture's activities. Please circle the response that indicates to what extent the following statements are true about **the things that you do**. Again, we use the term "your parents' native culture" to refer to the culture shared by your family.

How much do you speak <i>English</i> :	Not at all			Very much
42. at home?	1	2	3	4
43. at school?	1	2	3	4
44. with friends?.....	1	2	3	4

How much do you:

45. read <i>American</i> books, newspapers, or magazines?.....	1	2	3	4
46. listen to <i>American</i> songs?.....	1	2	3	4
47. watch <i>American</i> movies (on TV,DVD, online etc.)?.....	1	2	3	4
48. eat <i>American</i> food?.....	1	2	3	4
49. have <i>American</i> friends?....	1	2	3	4
50. attend <i>American</i> clubs or parties?.....	1	2	3	4
51. participate in <i>American</i> community activities?.....	1	2	3	4

How much do you speak <i>your parents' native language</i> :	Not at all			Very much
52. at home?	1	2	3	4
53. at school?	1	2	3	4
54. with friends?	1	2	3	4

How much do you:

55. read (<i>your parents' native language</i>) books, newspapers, or magazines?.....	1	2	3	4
56. listen to (<i>your parents' native language</i>) songs?	1	2	3	4
57. watch (<i>your parents native language</i>) movies (on TV, VCR, etc.)?.....	1	2	3	4
58. eat (<i>native cultural</i>) food?	1	2	3	4
59. have (<i>native cultural</i>) friends?	1	2	3	4
60. attend (<i>native cultural</i>) clubs or parties?	1	2	3	4
61. participate in (<i>your parents native language</i> community activities.....	1	2	3	4

II. Religiosity of Islam Scale

Below are statements concerning your religious life. Please indicate your reaction to each statement by selecting the answer that best fits you. We are interested only in getting your point of view. There are no wrong or right answers. Your answers will remain completely confidential.

1. I wear the hijab as a woman (for women only).

1	2	3	4	5
Everyday	Most days	Sometimes	Rarely	Never

2. I go to the mosque.

1	2	3	4	5
Everyday	Most days	Sometimes	Rarely	Never

3. I believe that the final and complete religion is Islam.

1	2	3	4	5
Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree

4. I pray five times a day.

1	2	3	4	5
Everyday	Most days	Sometimes	Rarely	Never

5. I read the Qur'an more than two times a week.

1	2	3	4	5
Everyday	Most days	Sometimes	Rarely	Never

6. I believe that men can shake hands with women

1	2	3	4	5
Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree

7. I believe Jinn exist.

1	2	3	4	5
Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree

8. I believe that the Qur'an is the final word of Allah

1	2	3	4	5
Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree

9. When I go out with my friends after school, I hang out with the opposite sex

1	2	3	4	5
Everyday	Most days	Sometimes	Rarely	Never

10. I seek knowledge because it is a Muslim religious duty.

1	2	3	4	5
Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree

11. I believe Allah created angels from light in order to worship Him, obey Him, and carry out His commands.

1	2	3	4	5
Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree

12. I drink alcohol.

1	2	3	4	5
Everyday	Most days	Sometimes	Rarely	Never

13. When I go to social gatherings, I sit with my own gender separate from the other gender

1	2	3	4	5
Everyday	Most days	Sometimes	Rarely	Never

14. I believe that a man can marry up to four wives.

1	2	3	4	5
Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree

15. I smoke cigarettes

1	2	3	4	5
Everyday	Most days	Sometimes	Rarely	Never

16. I believe that Hajj is obligatory only once during the lifetime of a Muslim

1	2	3	4	5
Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree

17. I perform ablution (wash face, arms, head, and feet with water) before I pray

1	2	3	4	5
Everyday	Most days	Sometimes	Rarely	Never

18. I am involved with other activities affiliated with a mosque (Classes, social events, other activities):

1	2	3	4	5
Everyday	Most days	Sometimes	Rarely	Never

19. I believe it is important to marry a Muslim.

1	2	3	4	5
Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree

III. Teacher Support

Below we will ask some questions about your relationships with your high school teachers. Please select the most likely answer. Again, please answer these based on YOUR interactions and not those of your friends or others in your class.

	<i>Never</i>	<i>Hardly Ever</i>	<i>Sometimes</i>	<i>Most of the Time</i>	<i>Always</i>
1. Teachers go out of their way to help me...	1	2	3	4	5
2. If I want to talk about something teachers will find time to do it.....	1	2	3	4	5
3. Teachers help me to organize my work...	1	2	3	4	5
4. I really enjoy their classes.....	1	2	3	4	5
5. Teachers help me catch up when I return from an absence.....	1	2	3	4	5
6. Teachers take a personal interest in me....	1	2	3	4	5
7. Teachers provide examples that refute Muslim stereotypes.....	1	2	3	4	5
8. Teachers provide accurate and undistorted information about Islam.....	1	2	3	4	5
9. Teachers attempt to make a productive relationship with my parents.....	1	2	3	4	5
10. Teachers intervene when Muslim children are teased.....	1	2	3	4	5

IV. Structural Support for Religious Practices

The following questions ask about the kinds of *supports* or *accommodations* in schools that some **Muslim** high school students need to practice Islam in school. For each of the statements below, first please mark if this support is present in your school since the last *six* months, Y (for Yes) or N (for No). Next, if you marked Yes, please indicate how important it is to you from “1”, not at all important” to “4”, very important.

	Is it present?		Not at all Important	Somewhat Important	Important	Very Important
1. We have a designated room to pray in the school.....	Y	N	1	2	3	4
2. There are halal/non-pork options available for lunch.....	Y	N	1	2	3	4
3. Cafeteria foods containing pork products are labeled.....	Y	N	1	2	3	4
4. There is a Muslim Students Association in my school.....	Y	N	1	2	3	4
5. Teachers excuse me from any physical education activities during Ramadan.....	Y	N	1	2	3	4
6. I am excused from coed physical education activities / classes.....	Y	N	1	2	3	4
7. Female Muslim students are allowed to wear what they prefer during physical education classes.....	Y	N	1	2	3	4
8. There are formal opportunities in my school to teach others about Islam (e.g. through the diversity council).....	Y	N	1	2	3	4
9. There are Muslim teachers in my school.....	Y	N	1	2	3	4
10. There is Muslim school staff/administrators in my school	Y	N	1	2	3	4
11. My school has an Islamic history course.....	Y	N	1	2	3	4
12. There are opportunities to discuss Islam in my school's curriculum	Y	N	1	2	3	4
13. Textbooks used in my school also discuss Islam.....	Y	N	1	2	3	4

V. Academic Performance

Please select one response for what grades did you get in the *last school year*?

7 = *Mostly A's*

6 = *Mostly A's and B's*

5 = *Mostly B's*

4 = *Mostly B's and C's*

3 = *Mostly C's*

2 = *Mostly C's and D's*

1 = *Mostly D's and below,*

VI. Educational Aspirations and Expectations

Below we will ask some questions on about your expectations. Please select the most likely answer. Again, please answer these based on YOUR expectations and feelings and not your parents or others.

A. How far you would like to go in school?

- 1) Finish some high school
- 2) Graduate from high school
- 3) Graduate from a 2-year college
- 4) Graduate from a 4-year college
- 5) Graduate from law, medical, or graduate school

B. How far you expect to go in school?

- 1) Finish some high school
- 2) Graduate from high school
- 3) Graduate from a 2-year college
- 4) Graduate from a 4-year college
- 5) Graduate from law, medical, or graduate school

C. How important are the following to you?

	Not Important		Very Important		
1. Doing well in school.....	1	2	3	4	5
2. Getting good grades.....	1	2	3	4	5
3. Going on to college after high school.....	1	2	3	4	5
4. Getting an "A" on almost every test.....	1	2	3	4	5
5. Being one of the best students in the class.....	1	2	3	4	5
6. Going to the best college after high school.....	1	2	3	4	5

VII. Acculturation Related Hassles

The following questions ask about the kinds of *hassles*, or *minor problems* that some *Muslim* (including immigrant) high school students sometimes experience. For each of the statements below, first please mark if this happened to you in the last *six* months, Y (for Yes) or N (for No). Next, if you marked Yes, please indicate how much of a hassle (problem) the event was, from “1”, not at all a hassle to “4”, a very big hassle.

	Did it happen?		Not at all a Hassle	A Little Hassle	Big Hassle	Very big Hassle
1. Someone said something to you in English you couldn't understand	Y	N	1	2	3	4
2. You saw another Muslim student treated badly or discriminated against.....	Y	N	1	2	3	4
3. Parents criticized you because they think you are becoming too American.....	Y	N	1	2	3	4
4. A teacher treated you unfairly because you are Muslim	Y	N	1	2	3	4
5. Parents told you to speak, read, or write in their native language.....	Y	N	1	2	3	4
6. You couldn't express a thought you had in English.....	Y	N	1	2	3	4
7. Had to explain American culture to parents	Y	N	1	2	3	4
8. Had to explain Islam to classmates/teachers/others at school.....	Y	N	1	2	3	4
9. Someone put you down for not speaking English correctly at school, for example your accent	Y	N	1	2	3	4
10. Parents told you to speak, read, or write in English.....	Y	N	1	2	3	4
11. Couldn't explain something to your parents, because they don't understand American culture	Y	N	1	2	3	4
12. A school administrator treated you unfairly because you are Muslim.....	Y	N	1	2	3	4
13. Had to accompany family members to appointments to translate.....	Y	N	1	2	3	4
14. Had a problem that parents couldn't help you with because they don't understand the American school system.....	Y	N	1	2	3	4
15. Had to choose whether to socialize with a non-Muslim or a Muslim group of friends.....	Y	N	1	2	3	4
16. You couldn't understand something you read in a book or newspaper because it was in English.....	Y	N	1	2	3	4
17. Tried to make friends with an American guy/girl.....	Y	N	1	2	3	4

	Did it happen?		Not at all a Hassle	A Little Hassle	Big Hassle	Very big Hassle
18. Your parents did something that embarrassed you, because they did not act like Americans.....	Y	N	1	2	3	4
19. You heard people say bad things or make jokes about Muslims at school.....	Y	N	1	2	3	4
20. A non-Muslim student treated you badly because you are Muslim	Y	N	1	2	3	4
21. Parents told you to not interact with opposite sex at school.....	Y	N	1	2	3	4
22. Couldn't understand something a teacher said in class because of English.....	Y	N	1	2	3	4
23. Non-Muslim students rejected you in some way.....	Y	N	1	2	3	4
24. Someone made fun of you because you didn't look "American" (clothing, hairstyle, and so on).....	Y	N	1	2	3	4
25. Had to translate for other family members: phone calls, mail, bills, TV.....	Y	N	1	2	3	4
26. Had trouble preparing a class paper or essay because of your English skills	Y	N	1	2	3	4
27. Was asked to explain the Islamic perspective in class on a specific social issue.....	Y	N	1	2	3	4
28. Heard someone say something offensive about Muslims at school.....	Y	N	1	2	3	4
29. Parents asked you to dress a certain way	Y	N	1	2	3	4
30. Had a problem that you couldn't talk to anyone about: you felt that neither Muslims (friends, parents) nor non-Muslims (friends, adults at school) would understand.....	Y	N	1	2	3	4
31. Other Muslim students did something that made you feel embarrassed that you are Muslim.....	Y	N	1	2	3	4
32. A Muslim student at school put you down or made fun of you because you are not Muslim enough.....	Y	N	1	2	3	4
33. A Muslim student at school put you down or made fun of you because you are too American.....	Y	N	1	2	3	4
34. A non-Muslim friend made fun of your name.....	Y	N	1	2	3	4
35. Your parents didn't let you do something that an American/non-Muslim friend's parents let him/her do..	Y	N	1	2	3	4
36. Parents made racist remarks against non-Muslims.....	Y	N	1	2	3	4

	Did it happen?		Not at all a Hassle	A Little Hassle	Big Hassle	Very big Hassle
37. Parents compared you negatively with one of your Muslim friends/cousins because they think they are better Muslims.....	Y	N	1	2	3	4
38. Did not know the game/song/star American students were talking about.....	Y	N	1	2	3	4
39. A non-Muslim friend thinks all Muslims are alike.....	Y	N	1	2	3	4
40. Your teacher thinks all Muslims are alike.....	Y	N	1	2	3	4
41. A non-Muslim friend questioned your patriotism to America.....	Y	N	1	2	3	4
42. A teacher questioned your patriotism to America.....	Y	N	1	2	3	4
43. Felt embarrassed in class presentation or speaking in class because you were not proficient in English.....	Y	N	1	2	3	4
44. Felt isolated in the school because you were in the ESL program.....	Y	N	1	2	3	4
45. No one at school stood up for me.....	Y	N	1	2	3	4
46. You tried to make friends with a non-Muslim student..	Y	N	1	2	3	4
47. I cannot do things my non-Muslim friends can (e.g. go to parties, prom, drink, and date).....	Y	N	1	2	3	4
48. I stay quiet when someone makes negative comments about Islam.....	Y	N	1	2	3	4

Do you have any other hassles/problems as a Muslim and/or immigrant adolescent that are not on the list?

A. _____

B. _____

C. _____

VIII. Psychological Distress

How have you felt during the past seven days including today? Use the following scale to describe how distressing or upsetting you have found these things over this time.

	Not at all Distressing	A Little	Quite a bit	Extremely Distressing
1. Difficulty in speaking when you are excited.....	1	2	3	4
2. Trouble remembering things.....	1	2	3	4
3. Worried about sloppiness or carelessness..	1	2	3	4
4. Blaming yourself for things.....	1	2	3	4
5. Feeling lonely.....	1	2	3	4
6. Feeling blue.....	1	2	3	4
7. Your feelings being easily hurt.....	1	2	3	4
8. Feeling others do not understand you or are unsympathetic.....	1	2	3	4
9. Feeling that people are unfriendly or dislike you.....	1	2	3	4
10. Having to do things very slowly in order to be sure you are doing them right.....	1	2	3	4
11. Feeling inferior to others.....	1	2	3	4
12. Having to check and double-check what you do.....	1	2	3	4
13. Your mind going blank.....	1	2	3	4
14. Trouble concentrating.....	1	2	3	4

IX. Background Information

You are almost through the questionnaire. Next, we have a few questions about you.

1. What is your age? _____ years old
2. What is your month and year of birth? _____
3. Are you ...
 - a. Female1
 - b. Male2
4. Are you in high school?
 - a. Yes.....1
 - b. No.....2
5. Are you Muslim?
 - a. Yes.....1
 - b. No.....2
6. Did you convert to Islam from another religion?
 - a. Yes.....1
 - b. No.....2
7. What grade are you currently in?
 - a. 9th grade.....1
 - b. 10th grade2
 - c. 11th grade.....3
 - d. 12th grade.....4
8. What is the name of your high school? _____
9. Please estimate to your best ability, how many students are there in total in your school? _____
10. Please estimate to your best ability, how many Muslim students are there in total in your school? _____
11. Were you born in the United States (US)?
 - a. Yes.....1 (skip to Question 14)
 - b. No.....2
12. If you were NOT born in the US, in which country were you born?

13. How long have you been in The United States? _____
14. Are you enrolled in the ESL/ELL program in your school?
- a. Yes.....1
 - b. No.....2
15. Was your mother born in the United States?
- a. Yes.....1 (skip to Question 17)
 - b. No.....2
 - c. Don't know.....3 (skip to Question 17)
16. In which country was your mother born? _____
17. Was your father born in the United States?
- a. Yes.....1 (skip to Question 19)
 - b. No.....2
 - c. Don't know.....3 (skip to Question 19)
18. In which country was your father born? _____
19. What is the highest level of education either of your parents or guardians has completed?
- a. Less than 8th grade.....1
 - b. Some high school.....2
 - c. High school diploma or GED.....3
 - d. Some college.....4
 - e. Two year college degree/ Associate's degree.....5
 - f. Four year college degree or more.....6
 - g. Don't know.....7
20. What languages do you speak? _____
21. What languages are spoken in your home? _____
22. Which of the following racial groups best describe you? PLEASE SELECT ALL THAT APPLY.
- 1) White or Caucasian
 - 2) Black or African American
 - 3) Asian or Asian American
 - 4) American Indian or Alaska Native

- 5) Native Hawaiian or Other Pacific Islander
- 6) Other: _____
- 7) Hispanic/ Latino

ASHMEET K. OBEROI

aobero3@uic.edu

EDUCATION

UNIVERSITY OF ILLINOIS AT CHICAGO

CHICAGO, IL

Doctoral Student, August 2008 – Present

Major: Psychology, Community & Prevention Research

Minor: Statistics, Methods, and Measurement

UNIVERSITY OF ILLINOIS AT CHICAGO

CHICAGO, IL

Master of Arts, May 2008

Major: Psychology, Community & Prevention Research

DELHI UNIVERSITY

NEW DELHI, INDIA

Master of Science, May 2001

Majors: Child Development

DELHI UNIVERSITY

NEW DELHI, INDIA

Bachelor of Science, May 1999

Majors: Home Science, Child Development

RESEARCH INTERESTS

Community-based mental health services, academic performance, acculturation, and school adjustment of immigrant and refugee children and pathways of coping and adaptation in individuals and families. In addition, projects focused on the association between religious beliefs and school experiences, the impact of discrimination and prejudice on religious minority communities, and bullying and harassment prevention programs.

RESEARCH PUBLICATIONS

Peer-Reviewed Journal Articles

Oberoi, A. K., Suarez-Balcazar, Y., Balcazar, F.E., Lukyanova, V.V., Langi, F. G. (under review).

Employment outcomes among African American and White Women with Disabilities: Examining the Inequalities. *Women, Gender, & Families of Color*

Oberoi, A. K., Langi, F. G., Balcazar, F. E. (under review). Vocational Rehabilitation Outcomes of People with Disabilities Living in Different Residential Arrangements. *Rehabilitation Psychology*.

Lukyanova, V.V., Balcazar, F.E., Suarez-Balcazar, Y., **Oberoi, A. K.** (under Review). An Evaluation of Employment Outcomes of Community Rehabilitation Providers. *Rehabilitation Counseling Bulletin*.

Lukyanova, V.V., Balcazar, F.E., **Oberoi, A. K.**, Suarez-Balcazar, Y. (in press). Employment outcomes among African American and Whites with Mental Illness, Work: A Journal of Prevention, Assessment & Rehabilitation.

- Balcazar, F.E., **Oberoï, A. K.**, Keel, J. (2013). Predictors of Rehabilitation Outcomes for Youth in Transition: Implications for Policy and Practice. *Journal of Applied Rehabilitation Counseling: Special issue on Transition*, 44(1), 38-45
- Oberoï, A. K.** (2012). An Ecological Examination of the Literature on School Experiences of Muslim Adolescents. *International Journal of Diversity in Organizations, Communities and Nations*, 11(5), 75-94
- Trickett, E. J., Rukhotskiy, E., Jeong, A., Genkova, A., **Oberoï, A. K.**, Weinstein, T., Delgado, Y. (2012). "The kids are terrific: It's the job that's tough": The ELL Teacher Role in an Urban Context. *Teaching and Teacher Education*, 28(2), 283-292
- Balcazar, F.E., **Oberoï, A.K.**, Suarez-Balcazar, Y., & Alvarado, F. (2012). Predictors of Rehabilitation Outcomes for African Americans in a Vocational Rehabilitation State Agency: Implications for Policy and Practice. *Rehabilitation Research, Policy, and Education*, 26(1), 43-54

Book Chapter

- Hasnain, R., Jones, R., Scott, M., Gunderson, J. R., **Oberoï, A.K.**, & McKeever, L. (in preparation). Designing Inclusive Surveys that Engage People with Disabilities. *Handbook of Health Survey Methods*. (Ed) Johnson. T. J.

CONFERENCE PRESENTATIONS

- Oberoï, A. K.**, & Langi, F. L. F. G. (2013, November). The Vocational Rehabilitation Quality Assurance Project. In F. Balcazar (Chair), *University and State Agency Collaboration to Create Systems Change*. Symposium conducted at the annual Midwest Ecological Psychology meeting of the Society for Community Research and Action, Chicago, FL.
- Oberoï, A. K.** (2013, October). *Religion in the Hallways: Academic Performance, Expectations, and Psychological Distress among Muslim Adolescents*. Paper presented at the 23rd Annual National Association of Multicultural Education International Conference, Oakland, CA.
- Oberoï, A. K.** (2013, June). Religion in the Hallways: Academic Performance and Expectations of Muslim Adolescents. In D. Birman (Chair), *Acculturation and Wellbeing of Immigrants*. Symposium conducted at the 14th Biennial Conference of the Society for Community Research and Action, Miami, FL.
- Oberoï, A. K.**, Balcazar, F. E., Suarez-Balcazar, Y. (2013, June). *Predictors of Rehabilitation Outcomes for African Americans in a Vocational Rehabilitation State Agency*. Poster presented at the 14th Biennial Conference of the Society for Community Research and Action, Miami, FL.
- Hasnain, R. & **Oberoï A. K.** (2012, October). *Unveiling Muslim Voices: Aging Muslim Immigrants with Disabilities, Family Caregivers, and Sociocultural Challenges*. Workshop conducted at the National Refugee and Immigrant Conference: Issues and Innovations, Chicago, IL.
- Oberoï, A. K.** & Carino, S. (2012, October). The Vocational Rehabilitation Quality Assurance Project. In F. E. Balcazar (Chair), *Multiagency Collaboration for the Successful Transition of Students with Disabilities*. Symposium conducted at the Midwest Ecological Psychology meeting of the Society for Community Research and Action, Hickory Corners, MI.

- Oberoï, A. K.** (2012, May). *An Ecological Examination of School Experiences of Muslim Adolescents in American Public High Schools: A Focus Group Study*. Paper presented at The Eighth International Congress of Qualitative Inquiry, Urbana Champaign, IL.
- Balcazar, F. E., & **Oberoï, A. K.** (2011, December). Latinos and the Vocational Rehabilitation Services. In Y. Suarez-Balcazar (Chair) *Health Issues among Immigrants with Disabilities*. Symposium conducted at the Immigrant Health Research Conference, Chicago, IL.
- Balcazar, F. E., **Oberoï, A. K.**, & Alvarado, F. (2011, October). *Promoting system change through a university and state agency partnership: Discussion of challenges and rewards*. Roundtable conducted at the Midwest Ecological Psychology meeting of the Society for Community Research and Action, Chicago, IL.
- Oberoï, A. K.** (2011, June). Impact of 9/11 on Schools and School Experiences of Muslim Adolescents. In S. Degirmencioglu, S. (Chair), *(Almost) 10 years after 2001: Communities and Community Psychology after September 11*. Symposium conducted at the 13th Biennial Conference of the Society for Community Research and Action, Chicago, IL.
- Oberoï, A. K.** (2011, June). *An Ecological Examination of School Experiences of Muslim Adolescents*. Paper presented at the 11th International Conference on Diversity in Organisations, Communities, and Nations, Cape Town, South Africa.
- Oberoï, A. K.** (2010, April). *Integrating Participant's Religious Beliefs and Affiliations into Contextually Grounded Research*. Chair, Symposium conducted at the Midwestern Psychological Association, Division 27 SCRA, Chicago, IL.
- Oberoï, A. K.** & Trickett, E. J., (2009, September). *Occupational Adjustment of Soviet Refugees: Impact of Demographics, Acculturation, and Community of Resettlement*. Poster presented at the International Conference on Asia Pacific Psychology, Seoul, Korea.
- Oberoï, A. K.** & Trickett, E. J., (2009, April). *Occupational Adjustment of Soviet Refugees: Impact of Demographics, Acculturation, and Community of Resettlement*. Poster presented at the University of Illinois at Chicago Student Research Forum, Chicago, IL.
- Oberoï, A. K.**, Jeong, A., Rukhotkiy, E., Delgado, Y., Genkova, A. & Trickett, E. J. (2008, May). The work lives of ESL and bilingual teachers in Chicago Public Schools. In E. J. Trickett (Chair), *The Schools: An Acculturative Challenge for All*. Symposium conducted at the Midwestern Psychological Association Annual Conference, Chicago, IL.
- Rukhotkiy, E., **Oberoï, A. K.**, Jeong, A., & Trickett, E. J. (2008, May). Qualitative Quandaries. In E. J. Trickett (Chair), *The Schools: An Acculturative Challenge for All*. Symposium conducted at the Midwestern Psychological Association Annual Conference, Chicago, IL.
- Oberoï A. K.**, Delgado, Y., Genkova, A., Jeong, A., Rukhotkiy, E, Trickett, E. (2007, October). *An Exploration of the Work Lives of ESL/Bilingual Teachers in Chicago Public Schools*. Paper presented at the Midwestern Psychological Association, Division 27 SCRA, Chicago, IL.

INVITED PRESENTATIONS

Balcazar, F.E., **Oberoï, A. K.** (2012, June). *Cultural Competence with vocational rehabilitation counselors in the U.S.* Invited presentation to the IVth International Conference of Community Psychology, Department of Psychology, Universidad de Barcelona. Barcelona, Spain.

Balcazar, F.E. and **Oberoï A. K.** (2012, March). *Developing and Writing Fundable Grant Ideas: Building Local Partnerships Creates Funding Opportunities.* Invited presentation at the Race, Ethnicity, and Disabilities: State of the Science Conference, Department of Physical Medicine and Rehabilitation National Institution of Disability and Rehabilitation Research, Virginia Commonwealth University, Arlington, VA.

WORK EXPERIENCE

PROJECT COORDINATOR, CENTER FOR CAPACITY BUILDING ON MINORITIES WITH DISABILITIES RESEARCH

CHICAGO, IL

University of Illinois at Chicago, January 2012 – present

- Manage a team of 2 graduate students on a quality assurance research project for Illinois Division of Vocational Rehabilitation (IDRS) agency involving cleaning, extraction, management, and analysis of a dataset with more than 200,000 individual cases.
- Collaborate with study personnel in the strategic planning of future external funding grants.
- Integrate information from multiple sources to ensure that research proposals meet the necessary requirements of funding agencies.
- Develops research protocols that clearly describe research objectives and procedures necessary to test the hypotheses of the research project.
- Develop research designs and strategies for data management.
- Ensures that data correlates with research objectives.
- Coordinates multiple data collection efforts for one or more research projects which may include other collaborating agencies or institutions.
- Consult with co-investigators on appropriate management of data related problems and concerns.
- Develop and manage interim reports for principal investigators, funding and collaborating agencies, and institutional review board to ensure that each project is moving toward timely completion.
- Liaison between the project team and funding agencies or significant parties.
- Ensure that projects are executed successfully and completed within time frames to meet research objectives.
- Write and edit technical reports and manuscripts for publication or presentation.
- Assist in the recruitment, training and supervision of research staff.

DATA ANALYST, CENTER FOR CAPACITY BUILDING ON MINORITIES WITH DISABILITIES RESEARCH

CHICAGO, IL

University of Illinois at Chicago, January 2010 – December 2011

- Used various statistical tools, e.g. SPSS, SAS, to examine archival case records in Illinois Department of Human Services (IDHS).
- Used SAS to transpose data and SAS and SPSS to run Multivariable Regressions to assess factors that hindered employment outcomes and proposed process improvement solutions (ARRA Funded Project).
- Acting as a Liaison between the IT team who did data mining and the non-technical (statistical) research team.
- Analyzed, interpreted, and made practical recommendations for process and system change based on the information gathered out of VR data to IDHS directors.

- Summarized the analysis and wrote the reports to be shared with officials at IDHS.
- Writing the analysis plan and results for peer-reviewed scientific journal publications.

INTERN, OFFICE OF EXTENDED LEARNING OPPORTUNITY (OELO)**CHICAGO, IL***Chicago Public Schools (CPS), September 2007 – May 2008*

- Conducted an organizational assessment of the department using an ecological framework
- Worked as a liaison between community-based organizations offering after school services in CPS and the OELO
- Made observations of school sites with staff of CSI and did administrative work for CSI.
- Completed a self-initiated project of interviewing other selected departments in CPS for partnership options with CSI for resource sharing and capacity building.

CONSULTANT, DEPARTMENT OF RESEARCH, EVALUATION, AND ACCOUNTABILITY**CHICAGO, IL***Chicago Public Schools, June 2007 – August 2007*

- Assisted with evaluation of Step-Up to High School program in Chicago Public Schools.
- Developed tools and procedures for conducting all aspects of data collection, management, and reporting.
- Conducted observations at schools, data analysis, and prepared a report on the evaluation of the Math component of the program.

RESEARCHER, DIVISION OF RESEARCH**NEW DELHI, INDIA***UNESCO, May 2002 – December 2002*

- Performed collaborative group research for the project “Programming for orphans and other vulnerable children affected by AIDS: A strategic framework to strengthen partnerships”
- Developed tools and procedures for conducting all aspects of data collection, management, and reporting.
- Collaborated with department team to design and produce effective data reporting methods and media
- Evaluated the effectiveness of partnerships of community based organizations and government offices for service delivery
- Assisted in development of grant proposals for such programs

RESEARCH ASSISTANT, DIVISION OF YOUTH DEVELOPMENT**NEW DELHI, INDIA***UNESCO, January 2002 – September 2002*

- Prepared a compendium on “UN interventions in the field of education and other adolescent concerns”.
- Assembled, prepared, and analyzed data for various UN interventions at the state and district level in the field of youth development
- Evaluated the effectiveness of various innovative interventions and their outcomes through testing and surveys

TEACHING EXPERIENCE**INSTRUCTOR, Department of Child Development***University of Delhi, September 2002 – December 2002*

- *Principles of Development*
- *Introduction to Statistics*

TEACHING ASSISTANT, Department of Psychology*University of Illinois at Chicago*

- *Developmental Psychology*, 3 Semesters (Fall 2005, Spring 2008, Fall 2008)
- *Community Psychology*, 3 Semesters (Spring 2006, Summer 2007, Summer 2009)

- *Practicum in Community Psychology, 4 semesters* (Fall 2006, Spring 2007, Fall 2009, Spring 2010)
- *Introduction to Statistics and Research Methods, 1 Semester* (Fall 2005)
- *Women and Gender Studies, 1 semester* (Summer 2009)

HONORS & AWARDS

President's Research in Diversity Travel Award, *University of Illinois at Chicago (UIC)*, Fall 2013
Ph.D. Student Travel Award, *The Liberal Arts School, UIC*, March 2013
Research Award, *UIC Psychology Department*, Spring 2013
Travel Award, *UIC Psychology Department*, Spring 2012
Research Award, *UIC Psychology Department*, Spring 2011
Travel Award, *UIC Psychology Department*, Spring 2011
Travel Award, *UIC Psychology Department*, Spring 2010
The Chicago Consular Corps Scholarship, Chicago Consular Corps, 2009

VOLUNTEER & SERVICE ACTIVITIES

Conference Planner, *Midwest Ecological and Community Psychology Conference*, 2013
Invited Reviewer, *The Qualitative Research journal*, February, 2013
Invited Expert (Multicultural Education), for *Intercultural Montessori School Newsletter*, Chicago, IL, 2013
Proposal Reviewer, *Biennial Conference of the Society for Community Research and Action*, 2013
Participant Leader, *Community Leadership Program, Leadership Center for Asian Pacific Americans*, 2013
Founding Member, *Student Task Force on Community Engagement Practices for Asian American and Pacific Islander issues (ASAM-CEP)*, 2012 – present
Student Organizer, *KIN_ETIC, ASAM-CEP event*, 2012
Associate Editor, *the International Journal of Diversity in Organizations Communities and Nations*, Volume 11, Issue 3, 2012
Student Member, *Diversity Advancement Committee Student Advisory Board*, 2011 - Present
Proposal Reviewer, the Midwest Ecological Psychology Conference, 2009.

PROFESSIONAL AFFILIATIONS

American Psychological Association
American Evaluation Association
National Association for Multicultural Education
Society for Community Research and Action (*APA Division 27*)
Society for Educational Psychology (*APA Division 15*)