August 2012

Sports Participation Among South Asian Americans: The Influence of Acculturation and Value of Sport

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SPORTS PARTICIPATION AMONG SOUTH ASIAN AMERICANS: THE INFLUENCE OF ACCULTURATION AND VALUE OF SPORT

by

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A Dissertation Submitted in

Partial Fulfillment of the

Requirements for the Degree of

Doctor of Philosophy

In Educational Psychology

at

The University of Wisconsin-Milwaukee

August 2012

ABSTRACT

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The University of Wisconsin-Milwaukee, 2012
Under the Supervision of Shannon Chavez-Korell, Ph.D.

Asian Americans, one of the fastest growing communities in recent decades (U.S. Census Bureau, 2008) continue to be underrepresented in sports in the United States. Recent trends in sport participation suggest that while other ethnic/racial minority groups are increasing their presence in sports, Asian Americans may not be increasing at a similar rate (Lapchick, 2008). For example, in collegiate athletics, only .005% of Asian Americans enrolled in college were also engaged in a sport, and in professional sports, only 1-2% of all players in major professional organizations identify as Asian American (Lapchick, 2008). Although statistics continuously reveal this trend, research is severely limited in examining the factors that contribute to Asian American sport participation to understand why such underrepresentation exists. Researchers have found that significant differences exist between sport participation rates, patterns, and preferences among ethnic/racial minority groups, but research is severely limited in looking at the specific factors that contribute to Asian American sport participation. Understanding factors that contribute to the underrepresentation of Asian American sport participation can add valuable information regarding the sport participation decision-making of Asian Americans. Additionally, this knowledge can offer more culturally appropriate strategies to improve efforts in increasing sport participation rates among Asian Americans. This

study utilizes the Expectancy-Value Theory of Achievement Motivation model proposed by Wigfield and Eccles (1983, 2000) to examine the factors that could contribute to sport participation among South Asian Americans, a particular subgroup of Asian Americans. Specifically, this study investigates the influence of a few cultural and contextual factors on sport participation. Specifically, the acculturation, parental influence, and value of sport were evaluated with parent-child dyads. A total of three variables in their relationship with sport participation were examined: Parent Acculturation, Parent Achievement Value of Sport, and Child Achievement Value of Sport. A total of 128 parent-child dyads participated in this study. Mediation analyses examined if parent achievement value of sport and child achievement value of sport mediated the relationship between parent acculturation and child sport participation. Parent acculturation was found to significantly predict parent achievement value of sport, parent achievement value of sport was found to significantly predict child achievement value of sport, and child achievement value of sport was found to significantly predict child sport participation. However, parent achievement value of sport and child achievement value of sport was found to not be mediators between parent acculturation and child sport participation. Findings from this study highlight the importance of continuing to examine cultural and contextual factors that impact sport participation among South Asian Americans.

This dissertation is dedicated to my dad, Venkat R. Palreddy.

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ACKNOWLEDGEMENTS

I would like to sincerely thank my advisors, Dr. Azara Santiago-Rivera and Dr. Shannon Chavez-Korell, for their guidance, encouragement, and mentorship throughout my doctoral education. Their commitment to my training has provided me with significant opportunities to engage and excel in my academic work and develop confidence in my identity as a counseling psychologist. They have fostered my passion for reducing disparities for socially marginalized groups and modeled how to do so through research, teaching, and clinical practice. Their kindness, work ethic, approach to mentoring students, and ability to balance commitment for a career while attending to personal goals exemplifies the qualities of strong psychologists, serving as tremendous role models to me as I launch my own career. I will be eternally grateful to have had the honor of working with two exceptional advisors.

I would also like to extend my appreciation to members of my dissertation committee: Dr. Cindy Walker, Dr. Tony Hains, Dr. Katie Mosack, and Dr. Margaret Duncan. Their time, thoughtful critiques, and innovative ideas played an instrumental role in completing my dissertation. Additionally, I would like to thank my doctoral and intern cohort for creating a warm, encouraging, and fun environment to learn and grow. I am truly thankful to have met such compassionate, resilient, and hilarious colleagues. Each of them made my doctoral training experience even more rewarding as I have gained life-long friends through the process.

Finally, I would like to offer all of my love and gratitude to my family for their unwavering support in my educational and professional aspirations. Each of them has provided me with encouragement, quiet patience, and an unwavering commitment to my

pursuit of a doctoral degree. My parents and brother, in particular, have had constant faith of my professional goals. I would like to reserve a special thank you for my partner, Ian Lowe, for his kindness, curiosity, and companionship. I feel truly priviledged to have grown professionally and personally with him by my side.

Chapter I

INTRODUCTION

Statement of the Problem

The racial and ethnic makeup of individuals living in the United States comprise approximately 30 percent of the population who identify as a racial/ethnic minority (U.S. Census Bureau, 2007). In recent decades, Asian Americans represent one of the most diverse communities in the United States. Current estimates approximate that there are 13.2 million individuals who identify as Asian American (U.S. Census Bureau, 2008). Additionally, over the next fifty years, Asian Americans are projected to be one of the fastest growing ethnic groups in the United States (U.S. Census Bureau, 2004).

South Asian Americans

The sub-groups that identify as Asian American share significant common cultural values and beliefs (Kim, Atkinson, and Umemoto, 2001), such as collectivism, deference to authority, emotional self-control, filial piety, and hierarchical family relationships (Kim, Atkinson, and Yang, 1999). However, the numerous countries and cultures encompassed in the Asian American cultural group reflect tremendous diversity (Kim & Omizo, 2005). One of the least studied subgroups, South Asian Americans, includes individuals whose country of origin is India, Pakistan, Bangladesh, Nepal, Bhutan, Maldives, or Sri Lanka (Sandhu, 1997). Estimates suggest that there are 2.8 million individuals who identify as South Asian that currently live in the United States (U.S. Census Bureau, 2008). In addition, South Asian Americans are projected to be one of the fastest growing communities in the U.S. Research suggests that South Asians differ from Asian Americans in their educational attainment, income earnings, religiosity, value

of the family structure, role of the family, and time orientation (U.S. Census Bureau, 2004; Ramisetty-Mikler, 1993).

Sport Participation

Sport in the United States is a multi-billion dollar industry (Humphreys & Ruseski, 2008). Sport participation is associated with many positive influences (Pfiefer & Cornelissen, 2010; Baron, 2001; Long & Caudill, 1991;). Research has supported that sport participation on a consistent basis has positive effects on psychological health. For example, sport participation has been linked to reduced depression, anxiety, and stress, and increased clear-mindedness and vigor (Koivula, 1999). Sport participation has also been linked to positive sexual health, such as an increased likelihood of the use of contraceptives in high school females (Brown, Ellis, Guerrina, Paxton, & Poleno, 1997). Furthermore, sport participation has been linked to reduced substance use among adolescents (Fredricks & Eccles, 2006). In addition, longitudinal studies have found a positive relationship between high school sport participation and earned income (Eiden & Ronan, 2001).

Racial and Ethnic Minority Representation in Sport

In recent decades, there have been relative gains in the increasing number of ethnic and racial minorities' participation in sport. However, racial and ethnic minorities continue to be at a disadvantage in sport participation in the United States (Coakley, 2001). Research on factors that influence sport participation in ethnic minorities is limited (Coakley, 2001). Research has suggested that there are significant differences in ethnic and racial individuals' sport behavior (Henderson & Ainsworth, 2001). For example, studies have found significant differences in sport participation patterns and

preferences among ethnic minority groups (Gobster, 1998; Carr & Williams, 1993). It has been supported that language constrains engagement in sport for Mexican immigrants (Stodolska & Yi, 2003) and Polish immigrants (Stodolska, 1998). Studies have also found significant differences with sport participation patterns, preferences, and values among ethnic minority groups (Gobster, 1998). For example, lack of interest was a factor in the underrepresentation of African American and Hispanic youth in golf (Gobster, 1998). Additionally, cultural differences have been identified as influential in the interpretation of sport behavior among different ethnic groups (Allison & Geiger, 1993; Carr & Williams, 1993). For example, it was found that Hong Kong Chinese athletes interpreted the appropriateness of aggression during sport participaiton differently than athletes in the United States (Maxwell, Visek, and Moores, 2009). Despite these findings, contextual factors such as race, ethnicitiy, and culture as they relate to sports are only beginning to be examined in research (Henderson & Ainsworth, 2001).

Asian American Sport Participation

As other racial and ethnic minorities increase their presence in sport, Asian Americans continue to be underrepresented. According to the NCAA Graduate Rates Report (Lapchick, 2008), only .005% of Asian/Pacific Islander students in colleges were also engaged in sport. This is compared to 2.6% of student athletes that identified as white and 6% of student athletes that identified as African American. In professional sport, 2% of players identified as Asian or Asian American in the Major League Baseball (MLB), 1% of players in the National Football League (NFL), and less than 1% of players in the National Basketball League (NBA) and the National Hockey League (NHL) (Wang, 2005; Lapchick, 2010). Analysis of data reveals that participation rates of

Asian Americans in sport has remained relatively stable for the several years. However, the growing presence of Asian Americans in the United States has not been met with surges of research on South Asian Americans. In particular, the prevalence of South Asian Americans in sports continues to be relatively unexplored. Research on ethnic and racial minorities in sports needs to understand the intersection between sport behavior and factors that affect decisions regarding participation in sport (Coakley, 2001).

Factors that Influence Sport Participation

Achievement Value of Sport

Sport participation has been examined within many theoretical frameworks. One framework, the Expectancy-Value Theory of Achievement Motivation, has helped to connect motivation with choice, persistence, and performance (Wigfield & Eccles, 2000). Expectancy-Value Theory of Achievement Motivation has been extensively used in research in domains such as human development and education, but more recently, has been extended to sport participation and achievement. A modified model by Eccles et al., (1983), provides researchers with a cohesive map of how expectancies of abilities, skills, interests, and parental values intersect to shape an individual's experiences and their choice to begin and persist in activities (Dixon, Warner, & Bruening, 2008). Eccles and colleagues (1983) defined and measured expectancies for success as an individuals' beliefs about how well they will do on an upcoming task, either in the immediate or longer term future. Task-related beliefs have been conceptualized by Eccles et al. (1983) as an individual's perception of his or her current competence at a particular activity. In addition, Eccles et al., (1983) defined task-specific values with multiple components: attainment value; intrinsic value; utility value; and cost. Attainment value is defined as

the importance of doing well on a given task. Intrinsic value examines the subjective interest the individual has in the task while utility value is defined as how a certain task fits into the future plans of an individual. Finally, cost captures the negative consequences for engaging in a certain task (Eccles & Wigfield, 2002). Numerous studies have empirically supported the strong relationship between achievement value in a specific domain and the achievement outcome of the same domain (Eccles et al., 1983). Researchers have identified task-value as one of the most important predictors of sport (Fredericks & Eccles, 2005). This research study will pay particular attention to the construct of value, as defined by Eccles et al (1983).

Parental Influence

According to Eccles' model (1983), socializing agents' values, expectations, and role modeling behaviors are assumed to influence an individual's choice of academic and co-curricular activities (Dixon, Warner, & Bruening, 2008). A review of sport participation literature revealed parental influence as one significant factor on influencing sport participation (Fredricks & Eccles, 2002; 2005). A few studies have supported that parents, as socializing agents, play a significant role in influencing attitudes and behaviors toward sport participation (Dixon, Warner, Bruening, 2008). The expectancy-value model assumes that parents serve three main functions as influencers on sport participation: 1-role models, 2- providers of experience, and 3- interpreters of experience (Fredericks & Eccles, 2002; 2005). This study will focus on how parents function as interpreters of experience. As interpreters of experience, parents can indirectly convey norms and values about sport participation “by communicating their beliefs, acceptance, and support of their child’s participation in sport” (Dixon, Warner, & Bruening, 2008,

p.542). Parental interpretation and valuing of sport participation is an important component of Eccles' Expectancy-Value model because it assumes that children internalize their parents' values and expectations (Dixon, Warner, & Bruening, 2008).

Acculturation

Eccles and her colleagues (1983), in their modified model, acknowledged the role of social and cultural factors that influence choice. The Expectancy-Value model identifies the importance of the role of cultural factors in domains such as sport participation. In stark contrast, however, research has not focused on the role of social and cultural factors on sport participation even though achievement models have recognized the importance of contextual factors. Additionally, cultural factors relevant to Asian Americans and sport participation have rarely been empirically studied. One important cultural factor relevant to ethnic and racial minorities, including South Asian Americans, is acculturation. As defined by Casas and Pytluck (1995), acculturation is the cultural learning process that occurs when members of two or more culturally distinct groups come into contact with one another. Some studies have found that acculturation accounts for variance in sport participation behaviors and beliefs (Hosper, Nierkens, & Stronks, 2008; Ryska, 2004; Ryska, 2001). For example, in their study on Turkish and Moroccan women in the Netherlands, researchers found that acculturation predicted sport participation and leisure activity participation among Turkish women but did not significantly predict among Moroccan women (Hosper, Nierkens, Valkengoed, & Stronks, 2008). This study suggests that if acculturation influences sport participation differently among different racial groups, individual attention is required to examine the role of acculturation in sport participation for sub-groups. The findings in this study

suggest that acculturation and sport participation may interact different among different groups, suggesting a complex interaction that deserves attention in research. Other studies have also found support for a relationship between language acculturation and sport participation for South Asian Canadians (Taylor & Doherty, 2005), Latinos (Liu, Probst, Harun, Bennett, & Torress, 2009), and recent Chinese immigrants (Yu & Berryman, 1996). If research has found that language acculturation may be a predictor in sport participation rates, then acculturation in other dimensions requires investigation.

Purpose of Study

Grounded in Expectancy-Value Theory of Achievement Motivation, empirical research based on the expectancy-value model suggests that the components of value, socializing agents, and sociocultural factors within this theory contribute to achievement outcomes. However, samples in research studies that have validated the relationships between value, socializing agents, and sociocultral factors have failed to incorporate a substantial number of Asian Americans in their discussion. For example, research has supported the influental nature of parents on several domains, including sport participation. However, studies that have examined this relationship have rarely used a heterogeeous sample to effectively apply results to Asian Americans or South Asian Americans. Additionally, achievement value of sport participation has shown to predict sport participation in individuals. Again, the positive association between achievement value of sport and sport participation has not been replicated in research studies with a South Asian or Asian American sample. Moreover, social and cultural factors remain unexplored in regards to sport participation. Acculturation is an important component in the experience of South Asian Americans but remains relatively unexplored in sport

participation literature. A small number of studies have examined the impact of acculturation on sport participation and have found a positive relationship. However, this has not been examined in South Asian Americans. This reflects an overall need to re-examine the influence of value, parents, and cultural factors on sport participation among ethnic minorities, such as South Asian Americans. It is especially important to examine how parental influence and achievement value of sport impact sport participation among South Asian Americans, as these variables have not been examined with a South Asian American sample.

The primary focus of this study was to examine factors that influence South Asian American sport participation. No study thus far has examined the influence of parental acculturation on achievement value of sport participation in Asian Americans. Specifically, this study examined the influence of parental acculturation on achievement value of sport and sport participation rates in South Asian Americans.

Definition of Terms

For the purposes of this research study, the following terms are defined:

Asian American

Asian American is a term used to "designate those who reside in the United States of full or partial Asian descent" (Ozaki, Lee, & Sue, 2006, p.30).

South Asian American

South Asian American is a term used to designate those who reside in the United States with origins from the countries Bhutan, Bangladesh, India, Pakistan, Nepal, Sri Lanka, and Maldives (U.S. Census Bureau, 2008).

Sport Participation

Sport participation is defined as"activities involving gross motor skills, competition, and an organized set of rules" (Coakley, 2003, p.12).

Achievement Value of Sport

Achievement value of sport is a term used to describe the importance individuals assign to do well in a particular sport, the enjoyment the individual gains from participating in a particular sport, and how a particular sport fits into the future plans of the individual (Eccles et al, 1983).

Acculturation

Acculturation is defined as a process of cultural change when two or more cultures interact together by experiencing continuous, direct, personal contact between two culturally distinct groups (Kohatsu, 2005; Suinn, Ahuna, & Khoo, 1992).

Research Questions

This study was designed to test the relationships among acculturation, achievement value of sport, and sport participation. This study was an exploratory attempt to understand how parents' acculturation impact parents' and their children's achievement value of sport, and their children's sport participation. Figure 1 outlines the relationships among the variables in the study. Additionally, the specific research questions and hypotheses are listed below.

1. Does parent acculturation significantly predict child sport participation in South Asian Americans ?

2. Does parent achievement value of sport mediate the relationship between parent acculturation and child sport participation in South Asian Americans?

3. Does parent achievement value of sport predict child sport participation in South Asian Americans?

4. Does child achievement value of sport mediate the relationship between parent achievement value of sport and child sport participation in South Asian Americans?

5. Does parent achievement value of sport and child achievement value of sport mediate the relationship between parent acculturation and child sport participation in South Asian Americans?

Hypotheses

1. Parent acculturation will significantly predict child sport participation in South Asian Americans. Higher levels of parent acculturation will predict higher levels of sport participation among their children, whereas lower levels of parent acculturation will predict lower levels of sport participation among their children.

2. Parent achievement value of sport will mediate the relationship between parent acculturation and child sport participation.

3. Parent achievement value of sport will significantly predict child sport participation in South Asian Americans. Higher levels of parent achievement value of sport will predict higher levels of child sport participation, whereas lower levels of parent achievement value of sport will predict lower levels of child sport participation.

4. Child achievement value of sport will mediate the relationship between parent value of sport and child sport participtaion.

5. Parent achievement value of sport and child achievement value of sport mediate the relationship between parent acculturation and child sport participation in South Asian Americans.

The study's oveall hypothesized model between all variables is presented in Figure 1.1 in Model 1.1

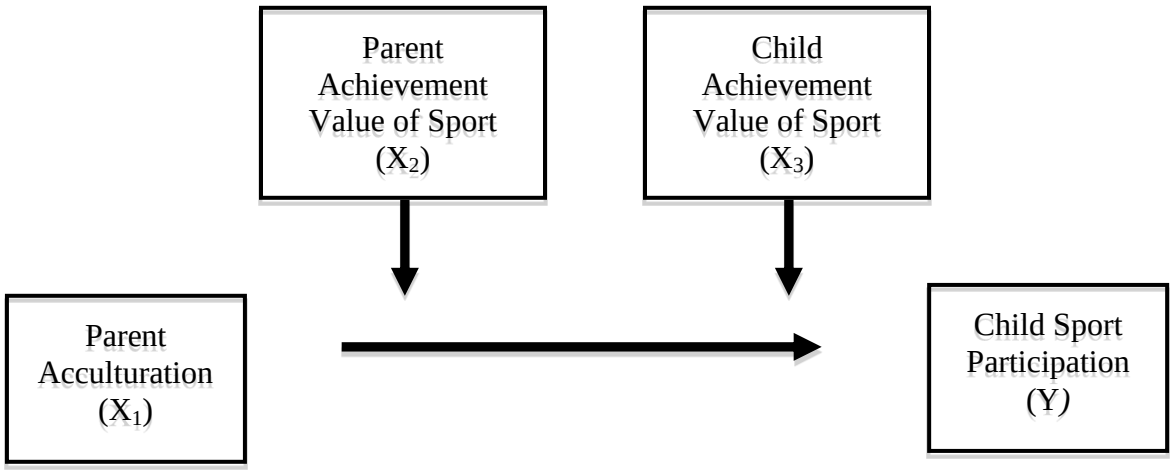


Figure 1.1
Model 1: Parent Achievement Value of Sport (X_2) and Child Achievement Value of Sport (X_3) Mediating the Relationship Between Parent Acculturation (X_1) and Child Sport Participation (Y)

Chapter II

REVIEW OF THE LITERATURE

The chief focus of this study was to investigate factors that shape the underrepresentation of South Asian American sport participation. Specifically, this study examined the influence of parental acculturation on achievement value of sport participation in Asian Americans. First, this literature review focuses on demographic information of Asian Americans in the United States, providing information on similarities of sub-groups within Asian Americans. Second, information regarding South Asian American demographic makeup and cultural values will be discussed, while summarizing the differences and similarities between South Asian Americans and Asian Americans. Demonstrating the differences between South Asian Americans and other Asian American cultural groups will help to establish the argument for studying sport participation among South Asian Americans specifically. Third, an overview of sport participation is provided, with an emphasis on differentiating sport participation from related constructs. Also included is a description of the sport industry in the United States and an examination of the influence of sport participation on psychological health, sexual health, substance use, physical and social health, and income earnings. Fourth, the ethnic and racial representation of sport participation in the United States is reviewed, with special attention paid to differences in sport participation behavior and patterns among ethnic and racial groups. In the fifth section, the underrepresentation of Asian Americans in sports at the collegiate and elite levels are presented. In the sixth and seventh sections, the expectancy-value theory of achievement motivation and Eccles' model of expectancy-value on achievement motivation and the application to sport participation is

described. In the final section, factors that influence sport participation are reviewed. Specifically, the influence of parents on sport participation and the relationship of acculturation on sport participation behaviors are examined.

Asian Americans in the United States

The racial and ethnic makeup of individuals living in the United States comprise approximately 30 percent of the population who identify as a racial/ethnic minority (U.S. Census Bureau, 2007). The racial and ethnic diversity of the United States is estimated to continue growing at rapid rates. The U.S. Census Bureau estimates that approximately 50% of the population will be from diverse racial and ethnic backgrounds by the year 2050 (U.S. Census Bureau. 2007).

In recent decades, Asian Americans represent one of the most diverse communities in the United States. Currently, Asian Americans are approximately 5 percent of the total United States population (U.S. Census Bureau, 2008). In the United States, there are approximately 13.2 million individuals who identify as Asian American (U.S. Census Bureau, 2008). The Asian American community is one of the largest growing groups in the United States and is projected to be the fastest growing ethnic group in America over the next fifty years (U.S. Census Bureau, 2004). It is estimated that by the year 2050, the Asian American population will triple (U.S. Census Bureau, 2007).

Residence of Asian Americans in the United States has largely been influenced by two factors: 1- the availability of large ethnic-specific communities, and 2- the location of points of entry in the U.S. for early Asian immigrants (Chan, 1991; Iwamoto & Liu, 2010). With the amelioration of ethnic-specific exclusion laws, in recent years, large

groups of Asian American ethnic groups have migrated to the U.S. (Iwamoto & Liu, 2010). Researchers have found that Asian American migration histories are part of a chain of migration linked to family reunification, obtaining work, or gaining an education (Fu & Hatfield, 2008; Zhou & Xiong, 2005).

According to the United States Census, Asian American is defined as a racial category including at least 30 different ethnic groups and potentially many more cultural groups (U.S. Census Bureau, 2002). The U.S. Census Bureau (2004) defines Asian Americans as individuals with origins of people in the Far East, Southeast Asia, or South Asia. It must be noted that Asian groups include nationalities and ethnic groups. Researchers have defined Asian American as a term to "designate those who reside in the United States of full or partial Asian descent" (Ozaki, Lee, & Sue, 2006, p.30). Each ethnic group encompassed in the definition of Asian American has its own unique language, culture, norms, traditions, customs, and immigration history.

The sub-groups that identify as Asian American share significant common cultural values and beliefs (Kim, Atkinson, and Umemoto, 2001). Asian cultural values and beliefs include collectivism, deference to authority, emotional self-control, family recognition through achievement, conformity to norms, filial piety, humility, maintenance of interpersonal harmony, hierarchical family relationships, and avoidance of shame (Kim, Atkinson, and Yang, 1999). Additionally, interdependence, role rigidity, formality, indirect expression, and harmony with nature have also been found to be salient in traditional Asian Americans (Casas & Mann, 1996).

The numerous countries and cultures encompassed in the Asian American cultural group reflect significant diversity (Kim & Omizo, 2005). The distinct differences

between sub-groups within the racial category of Asian American have been well documented in research. The Asian American population exhibits great within-group variability, with distinct sub-groups that differ in social norms, religion, language of origin, and values (Sandhu, 1997). A portion of this diversity stems from the varied migration experience of Asian Americans. For example, a large number of Asian Americans are descendants of Asians who migrated to the United States before the Industrial Revolution, in the late 19th century to early 20th century. In contrast with these Asian Americans who have lived in the U.S. for several generations, a large surge of Asians migrated to the United States after the 1965 Immigration Act (Kim & Omizo, 2005; Chan, 1991). Additionally, significant differences exist in demographic makeup between Asian American subgroups in the United States.

South Asian Americans

One such sub-culture, South Asian Americans, is one of the least studied subgroups (Sandhu, 1997). This group includes individuals whose country of origin is India, Pakistan, Bangladesh, Nepal, Bhutan, Maldives, or Sri Lanka. Estimates suggest that there are 2.8 million South Asians that currently live in the United States (U.S. Census Bureau, 2008). South Asian Americans are one of the fastest growing communities in the United States. However, the growing presence of South Asians in the United States has not been met with surges of research on South Asian Americans. In particular, studies on the relationship between South Asian Americans and sport participation continues to be relatively unexplored.

In 2007, the U.S. Census Bureau created and distributed a study entitled "American Community: Asians" with detailed information on Asian Americans and

Asian ethnic groups based on data from the 2004 American Community Survey series. Due to the lack of statistical information collected by the U.S. Census Bureau on individuals from Nepal, Bhutan, and Maldives, detailed information about individuals from these countries will not be presented.

According to the U.S. Census Bureau (2007), there are approximately 2.3 million individuals who identify as Asian Indian in the United States and approximately 209,000 individuals with family origins in Pakistan. Asian Indians and Pakistanis are one of the largest ethnic groups within the Asian American cultural group, comprising of approximately 18.6 % and 1.7 %, respectively. In 2004, there were roughly 50,000 individuals with origins in Bangladesh, representing 0.4 percent of the total Asian American population. Additionally, there were 11,500 individuals with origins from the country of Malaysia, accounting for 0.1 percent of the total Asian American population. Moreover, approximately 22,000 individuals identified as Sri Lankan in 2004, representing 0.2 percent of the total Asian American population. Specific statistics on the number of individuals from Nepal, Bhutan, and Maldives in the United States were not available but have been grouped together and suggest that, in combination with individuals who identified as Bhutanese, Indochinese, Iwo Jiman, Madagascar, Okinawan, and Singaporean, approximately 250,00 individuals live in the United States with origins in these countries (U.S. Census Bureau, 2007).

Age demographics suggest that the majority of individuals of Asian Indian descent living in the United States are within the ages 18-64, accounting for more than 71 percent of the group. Similar age demographics were found within the Pakistani ethnic

group with more than 64 percent of individuals living in the United States between the ages of 18-64 (U.S. Census Bureau, 2004).

Compared to other Asian American ethnic groups, Asian Indians and Pakistanis had the highest percentages of individuals who spoke English and another language at home, with 57.6 percent and 60.6 percent, respectively. The educational attainment rates of South Asians reveal tremendous differences compared to the total population and other Asian American ethnic groups. Specifically, 63.9 percent of Asian Indians and 54.3 percent of Pakistanis reported attaining a Bachelor's degree or higher compared to 44.1 percent of Asian Americans collectively and 24.4 percent of the total population in the United States.

In the labor force, 59.9 percent of Asian Indians and 43.5 percent of Pakistanis reported working in the management and professional sector. Economically, Asian American men and women had higher median earnings compared to all men and women in the U.S. Specifically, Asian Indian men had the highest median earnings among all Asian American subgroups, with a yearly income of $51,900. Asian Indian women had the second highest median earnings ($35,173), narrowly trailing Japanese women ($35,998). In 1999, Asian Indian families' median annual income was $70,708, second highest of all Asian ethnic groups. However, the median income of Pakistani families was substantially lower than the median for all Asian families, at $50,733. It must be noted that this median income was still higher than the family median for all families ($50,046).

Despite large within-group variability, examination of South Asian cultural values is often investigated in conjunction with other Asian subgroups (Lueng, Ivey, & Suzuki,

1994). As a result, explicit examination of South Asian cultural values has not received adequate attention. Research has found, however, one unique value of South Asians is the emphasis on the past and future, while the present is viewed as a transitory period (Ramisetty-Mikler, 1993). This differs from the general orientations of other Asian groups, where emphasis is placed on the present and future.

Religion also plays a prominent role in the lives of South Asians. With foundations in religions of the region, dharma, social duties and codes of behavior are highly valued and guide individuals to adhere strongly to the code (Ramisetty-Mikler, 1993). In addition, behaving in ethical and culturally appropriate ways is given strong importance. Furthermore, self-actualization, the process to move beyond the physical life, is significant for South Asians.

The value placed on family structure and the role of families is also unique to South Asians. Ramisetty-Mikler (1993) describes the family unit as the center of life for South Asians. Family roles often involve prescribed expectations and requirements, including younger family members showing respect for elders and financially contributing to the immediate and extended family.

Many research studies and information-gathering bodies (i.e. Census Bureau) often group all Asian American subgroups together, implying high within-group similarities. Although similarities exist in some areas, caution must be used when generalizations about Asian Americans are made, due to the significant within-group variability, as demonstrated. South Asian Americans' demographic makeup in the United States suggests differences in educational attainment, income, occupational representation, and language use compared to Asian Americans as a whole. Furthermore,

the strong emphasis on family and family roles, dharma, and religion suggest that South Asian value orientations are distinct from other Asian American cultural groups. The distinct differences in representation in the United States and cultural norms and values of South Asian Americans between other subgroups of Asian Americans provides strong evidence for specifically studying South Asian Americans as opposed to Asian Americans as a collective group.

Sport Participation

Sport has been studied in many academic disciplines, ranging from research in the fields of humanities, sociology, communication studies, psychology, laboratory sciences, law, and business (Humphrey & Ruseski, 2008). Sport is a complex, multi-faceted concept that ranges from a structured series of competitive events such as the Summer and Winter Olympics to informal recreational games such as "pick-up" basketball. Sport participation has many related constructs such as exercise, physical activity, and recreational leisure activities (Humphrey & Ruseski, 2008). With many related concepts, it is imperative to create an operational definition of sport participation to differentiate it from these constructs. For the purpose of this research study, sport participation will be defined using sociologist Coakley's (2003) description of sport as: "Activities involving gross motor skills, competition, and an organized set of rules," (p.14). The definition that is used for sport participation is slightly different than the widely used definition of physical activity. Casperson, Powell, and Christenson (1985) defined physical activity as any bodily movement produced by skeletal muscles that resulted in energy expenditure. Exercise, as defined by researchers, is a subset of physical activity that is planned or structured and requires repetitive body movements to improve physical fitness

(Henderson & Ainsworth, 2001; Humphrey & Ruseski, 2008). Finally, recreational leisure activities may be defined as a subset of physical activity or exercise where it may be undertaken during free time and results in enjoyment (Henderson & Ainsworth, 2001; Humphrey & Ruseski, 2008). Defining sport participation by incorporating a competitive dimension helps to separate sport participation from gardening, an example of a leisure activity, and jogging, an example of exercise. Furthermore, defining sport participation as activities with a gross motor skill dimension will help to exclude activities such as poker and chess, both games of mental skill.

Due to the limited research on the sport participation of Asian Americans, some studies that are reviewed in the following sections will also reflect research on physical activity, recreational leisure activities, and exercise, even though sport participation is the identified variable of interest. Although sport participation has been defined as different from exercise, physical activity, and recreational leisure activity, some studies may be evaluated to provide additional information to help examine the relationships between the variables in this study.

Sports in the United States

Sports in the United States is a growing industry. Economic analyses estimate sports in the United States to be a multi-billion industry, ranging between $44 to $73 billion dollars (Humphreys & Ruseski, 2008). In a study conducted by Humphreys and Ruseski (2008), analysis revealed that individual involvement in sports in the United States is occurring at significant rates. They estimate that over 50% of individuals reported being involved in sport activities (i.e., watching, coaching, participating) regularly in any given year, with a much larger percentage interacting with sports

occasionally. Additionally, individuals in postindustrial societies spend billions of dollars each year on sport-related expenses, such as game tickets, sports equipment, participation fees, and gambling. At the corporate level, businesses have capitalized on the sport industry by spending millions of dollars for advertisements and commercial time during sporting events. For example, in 2009, corporations paid approximately 3 million dollars for thirty seconds of commercial time during the Super Bowl. During the Olympic games, corporate sponsors collectively spent 4 billion dollars toward advertisements (Coakley, 2003). The study of sport participation among various groups is important because of the interconnectedness between sport and other sectors of society. Sports in United States are connected to family, social lives, economics, media, and education. For example, many families' lives revolve around sport participation, as children play a wide range of organized sports and family members coach, attend, and provide transportation to sporting events (Coakley, 2003). The study of sports are significant "because they are socially significant activities for many people, they reinforce important ideas and beliefs in many societies, and they've been integrated into major spheres of social life such as the family, religion, education, the economy, politics, and the media" (Coakley, 2003, p.18).

Importance of Sport Participation

In the following section, an examination of the influence of sport participation on psychological health, sexual health, substance use, physical and social health, and income earnings will be presented. It is important to note that there has been a significant amount of research dedicated to exploring the negative influences of sport participation, including illicit drug use, violence against women, an overall culture of violence, and eating

disordered behavior. For the purposes of this study however, sport participation will be viewed as an achievement outcome and will focus on the positive influences of sport participation.

Influence on Psychological Health

Sport participation is associated with many positive behaviors (Pfiefer & Cornelissen, 2010; Baron, 2001; Long & Caudill, 1991;). Research has supported that sport participation on a consistent basis has positive effects on psychological health. For example, sport participation has been linked to reduced depression, anxiety, and stress, and increased clear-mindedness and vigor (Koivula, 1999). Sport participation has also been associated with improvements in mental and social well-being (Miller & Hoffman, 2009). In a study conducted by Baumert, Henderson, & Thompson (1998), researchers found that compared to non-athletes, individuals who participated in sport reported less frequent feelings of hopelessness. Similar results have been found with regard to depression (Dishman, Hales, Pfeiffer, Felton, Saunders, & Ward, 2006), suicidal ideation, and suicidal attempts (Harrison & Narayan, 2003). Brown and Blanton (2002) also found similar results among college sport participants. Results from their study indicated that participation on a college sports team significantly reduced individuals' likelihood of thinking about, planning, or attempting suicide. Results from the study suggest that men who did not participate in sport were more 2.5 more likely to be suicidal than their peers participating in sport. As a caveat, analysis of the women in the study suggested that women who did not participate in sport were only slightly more likely to be suicidal than their peers participating in sport. Fredricks and Eccles (2006) also found that individuals participating in sport experienced greater psychological adjustment than their peers. In

their study, individuals who participated in sport reported lower levels of depression and higher levels of self-esteem than their non-athlete peers.

Influence on Sexual Health

Research in the past decade has focused on the relationship between sport participation and sexual and reproductive health behavior of high school females. Such research has indicated that adolescent females involved in sport are less likely to have ever had sexual intercourse (Miller, Sabo, Farrell, Barnes, & Merrill, 1999). Results have also found that sport participation lowered risk of pregnancy among adolescent females. Additionally, sport participation is positively associated with the use of contraceptives in high school females. Moreover, studies have shown that adolescent females who participate in sport engage in sexual intercourse at an older age than female non-athletes (Brown, Ellis, Guerrina, Paxton, & Poleno, 1997). Among sexually active females, sport participation was associated with fewer sexual partners (Cafferata-Zurn, Farrell, & Barnes, 2000; Eitle & Eitle, 2002).

Influence on Substance Use

Sport participation has been linked to reduced time spent on unhealthy behaviors such as underage drinking, television watching, and illicit drug use (Pfiefer & Cornelissen, 2010). In a longitudinal study on high school students, after controlling for family dimensions and motivation, Fredricks and Eccles (2006) found that individuals who participated in sport reported lower alcohol use than their non-sport participating peers. Additionally, Fredricks and Eccles found that sport participation predicted lower marijuana use for 11th grade males. However, there was not a significant difference in marijuana use between sport participating females and non-sport participating females.

Michaud, Jeannin, and Suris also found similar results, with sport participation predicting a lower engagement in health-threatening behavior such as substance abuse (2006).

Influence on Physical and Social Health

Sport activity has also been associated with positive associations with physical and social health. For example, sport participation has shown to increase skills such as dexterity, balance, leadership, teamwork, and working within a structured framework and increasing self-esteem, motivation, and sense of responsibility (Pfeider & Cornelissen, 2010).

Influence on Earnings

Research in the 1980's and 1990's began to focus on the impact of sport participation on earned income. Eiden and Ronan (2001) explored the influence of high school sport participation on income for individuals ten years after high school. Analyses found that sport participation was positively associated with earnings for men, regardless of race. However, a positive relationship between sport participation and earnings was only found for white women. In a study examining the relationship between earned income in adulthood and sport participation in high school, Curtis, McTeer, and White (2003) found similar results, with overall higher income earnings for all genders and across all education levels for individuals who participated in sport compared to those who did not participate in sport.

Ethnic and Racial Minorities' Representation in Sports in the United States

Historically, sports has played a public role in displaying current states of gender and racial equality (Wang, 2005). For instance, between the years of 1940-1947, numerous plans were laid to help end discriminatory employment against African

Americans in the United States. Resistence to integration in sports reflected the political unrest and struggle against discriminatory employment in the United States. Jackie Robinson's start for the Dodgers on April 15, 1947 helped demonstrate the progress toward decreasing racial discrimination in the labor force in the United States (Kelly, 2005). Additionally, the inception of Title IX in 1972 coincided with the increased presence of women in the workplace. From a sociological perspective, current ideologies on gender, race, and ethnicity can be evaluated by examining sports trends. Currently, women athletes are breaking barriers into sports that historically have been reserved for men, and U.S. colleges are recruiting players extensively at the international level, reflecting progress toward integration and globalization of sports (Wang, 2005).

Despite some gains for ethnic/racial minorities and gender minorities in sports, ethnic and racial minorities continue to be at a tremendous disadvantage in overall sport participation (Coakley, 2001). Although researchers have begun to explore sport participation among ethnic minority groups more intensely recently than in decades past, research on ethnic minority participation in sport continues to be limited (Coakley, 2001; Henderson & Ainsworth, 2001; Allison, 2000; Floyd & Phillip, 2000; Taylor 2000). However, the limited research on ethnic minorities in sport has provided some important information regarding factors contributing to sport participation. For example, research on sport participation among minority groups suggests that the ethnic and racial background of individuals influence sport behavior (Coakley, 2001; Henderson & Ainsworth, 2001; Hutchinson, 1987; Juniu, 2000; Tirone & Shaw, 1997). For example, qualitative studies have explored factors influencing sport participation and leisure activity patterns in Latin American immigrants and have found that difficulty with

language can constrain engagement (Juniu, 2000). Similar results have been found with Mexican immigrants (Stodolska & Yi, 2003) and Polish immigrants (Stodolska, 1998).

Studies have also found significant differences with sport participation patterns, preferences, and values among ethnic minority groups (Gobster, 1998; Grey, 1992; Taylor & Toohey, 1996; Carr & Williams, 1993). For example, Gobster (1998) found that lack of interest was a constraint for playing golf among African American and Hispanic youth. In a study conducted by Cox and Whaley (2004), comparisons between African American and White high school basketball varsity players were made in expectancies for success, interest value, attainment value, utility value, and basketball identity. Results indicated significant differences between White and African American athletes on all variables (Cox & Whaley, 2004).

Additionally, cultural differences have been identified as influential in the interpretation of sport behavior among different ethnic groups (Allison & Geiger, 1993; Carr & Williams, 1993; Floyd & Gramann, 1993; Gobster, 1998; Hutchinson, 1987;). For example, in a study conducted by Maxwell, Visek, and Moores (2009), results indicated that anger and aggressive behaviors in male Hong Kong Chinese athletes was similar to athletes in the United States. However, analysis suggested that Hong Kong Chinese athletes interpreted the appropriateness of aggression during sport participation differently than athletes in the United States. Moreover, Livengood and Stodolska (2004) found that the expectation of discrimination by racial and ethnic minorities may impact their pursuit of sport and leisure activities. Many studies on sport participation overlap with investigations on physical activity involvement among ethnic minority groups in relation to health outcome variables (Ainsworth, 2000; Crespo, 2000; Crespo, Smit,

Anderson & Carter-Poktas, 2001). However, contextual factors such as race, ethnicity, and culture as they relate to sports are only beginning to be examined in research (Henderson & Ainsworth, 2001).

In America, discussions about race and sport have largely surrounded the integration of African-Americans and Whites on the playing field. Only at the end of the 20th century has this discussion started to include Latinos. Rarely, however, do conversations about sport include one of the fastest growing groups in the United States (Coakley, 2003). Discussions have broadened to examine how minority groups have used sport participation as a mechanism to achieve mainstream American educational, social, and economic goals and how sport is used to break cycles that often plague socially marginalized groups. However, with the lack of attention that Asian American sport participation has received, reasons on how to improve underrepresentation of Asian Americans in sport continue to be unexplored (Coakley, 2003). Overall, current research on ethnic minority participation provides a small window into the complexities of the sociocultural contexts that may affect sport behavior (Henderson & Ainsworth, 2001). Research on ethnic and racial minorities in sports needs to understand the intersection between sport behavior and factors that affect decisions regarding participation in sport (Coakley, 2001).

Asian American Sport Participation

Sport Participation at the Collegiate Level

As other socially marginalized groups have increased their presence in the sports realm, Asian Americans continue to be underrepresented in sport. Currently, there are not data available on Asian Americans' sports participation at younger ages, preventing an

analysis of younger Asian Americans' sport participation patterns. However, according to the NCAA Graduation Rates Report (Lapchick, 2008), only .005% of Asian/Pacific Islander students enrolled in college also participated in sports. At the collegiate level, only 0.4% of Division 1 Baskebtall male athletes identified as Asian during the 2007-2008 year, compared to 32.6%, 60.4%, and 1.8% of individuals who identified as White, African-American, and Latino, respectively (Lapchick, 2010a). In Division 1 NCAA Football, only 0.9% of athletes identified as Asian, compared to 46.6%, 46.4, and 2.4% of athletes who identified as white, African-American, and Latino (Lapchick, 2010a). Moreover, only 1.1% of athletes identified as Asian in Division 1 Baseball, while 84.4% identified as white, 6.0% identified as African-American, and 5.5% identified as Latino (Lapchick, 2010a). Across all Division I male athletes, only 1.5% of the athletes identified as Asian or Asian American. Table 2.1 outlines the participation rates of male Asian Americans in collegiate athletes in Division 1 basketball, football, and baseball from the 1998-1999 school year to 2006-2007 school year and indicates that the pattern of participation in Division 1 athletes for males has been relatively stable.

Table 2.1
Percentages of Asian American Male Division I Athletes in Basketball, Football, and Baseball from 1998-2008.

School Year	Basketball	Football	Baseball
1998-1999	0.3%	2.0%	0.8%
1999-2000	0.3%	1.3%	1.1%
2000-2001	0.2%	1.3%	0.9%
2001-2002	0.2%	1.4%	1.1%
2002-2003	0.4%	0.4%	0.3%
2003-2004	0.2%	1.6%	1.2%
2004-2005	0.4%	1.6%	1.1%
2005-2006	0.5%	1.6%	1.1%
2006-2007	0.4%	1.6%	1.2%
2007-2008	0.4%	0.9%	1.1%

Note. Adapted from Lapchick, R. (2010a). Racial and Gender Report Card, 2009. Orlando: Institute for Diversity and Ethics in Sports, University of Central Florida.

For female athletes in Division 1 athletics, an underrepresentation of Asian Americans continues to be pervasive. Only 1.1% of Division 1 Basketball female athletes identified as Asian during the 2007-2008 year, compared to 42.6%, 50.1%, and 1.3% of individuals who identified as White, African-American, and Latino, respectively (Lapchick, 2010a). In Division 1 Outdoor Track, only 1.4% of athletes identified as Asian, compared to 60.2%, 29.5, and 3.4% of athletes who identified as white, African-American, and Latino (Lapchick, 2010a). Moreover, only 2.0% of athletes identified as Asian in Division 1 Softball, while 78.5% identified as white, 7.7% identified as African-American, and 7.2% identified as Latino (Lapchick, 2010a). Across all Division I female athletes, 2.5% of the athletes identified as Asian or Asian American. Table 2.2 outlines the participation rates of female Asian Americans in collegiate athletes in Division 1 basketball, outdoor track, and softball from the 1999-2000 school year to 2006-2007 school year and suggest that these rates have remained consistent for the past nine years. These statistics provide evidence that the underrepresentation of Asian Americans in sport participation is consistent across genders.

Table 2.2
Percentages of Asian American Female Division I Athletes in Basketball, Outdoor Track, and Softball from 1999-2008.

School Year	Basketball	Outdoor Track	Softball
1999-2000	0.7%	0.8%	1.3%
2000-2001	0.8%	1.0%	3.6%
2001-2002	0.8%	1.0%	1.7%
2002-2003	1.2%	1.4%	1.9%
2003-2004	1.3%	1.2%	2.1%
2004-2005	1.3%	1.2%	1.9%
2005-2006	1.6%	1.3%	1.9%
2006-2007	1.1%	1.4%	2.3%
2007-2008	1.1%	1.4%	2.0%

Note. Adapted from Lapchick, R. (2010a). Racial and Gender Report Card, 2009. Orlando: Institute for Diversity and Ethics in Sports, University of Central Florida.

Sport Participation at the Elite Level

Major League Soccier (MLS)

In 2008, there were four people in Major League Soccer who identified as Asian American or Asian, approximately 1% of the total number of players in the MLS. This is compared to 204 players who identified as White (62%), 64 players who identified as African American (20%), and 54 players who identified as Latino (16%). These statistics have remained relatively stable over the past five years, except for in 2006, where there were nine individuals (3%) who identified as Asian American (Lapchick, 2009a). Table 2.3 displays the number of Asian Americans in the MLS from 2002-2008.

Table 2.3
Asian American Athletes in Major League Soccer from 2002-2008.

Year	# of Asian Americans	% of Asian Americans
2002	Data not recorded	1%
2003	Data not recorded	Data not recorded
2004	3	1%
2005	4	1%
2006	9	3%
2007	4	1%
2008	4	1%

Note. Adapted from Lapchick, R. (2009b). Racial and Gender Report Card, 2009. Orlando: Institute for Diversity and Ethics in Sports, University of Central Florida.

National Football League (NFL)

Lapchick (2009b) found that only 45 individuals, approximately 2% of the total players in the National Football League (NFL), identified as Asian American or Asian.

This is compared to 805 players who identified as White (31%), 1762 players who identified as African-American (67%), and 25 players who identified as Latino (1%). The number of Asian Americans in the NFL has remained relatively stable over the past six years, as evidenced by the percentage never surpassing 2% of the total number of players. Table 2.4 presents the numbers and percentages of Asian Americans in the NFL from the years 2005-2008.

Table 2.4
Asian American Athletes in the National Football League from 2003-2008.

Year	# of Asian Americans	% of Asian Americans
2003	9	1%
2004	Data not recorded	Data not recorded
2005	34	2%
2006	25	1.5%
2007	44	2%
2008	45	2%

Note. Adapted from Lapchick, R. (2009b). Racial and Gender Report Card, 2009. Orlando: Institute for Diversity and Ethics in Sports, University of Central Florida.

Major League Baseball (MLB)

In 2009, there were 28 people in Major League Baseball who identified as Asian American or Asian, approximately 2.3% of the total number of players in the MLB. This is compared to 758 players who identified as White (61.6%), 111 players who identified as African American (9%), and 332 players who identified as Latino (27%). These statistics have remained relatively stable over the past eight years, with the percentage of

Asian Americans hovering between 2-3%. (Lapchick, 2010b). Table 2.5 displays the number of Asian Americans in the MLB from 2002-2010.

Table 2.5
Asian American Athletes in Major League Baseball from 2002-2010.

Year	# of Asian Americans	% of Asian Americans
2002	Data not recorded	2%
2003	Data not recorded	Data not recorded
2004	26	2%
2005	30	3%
2006	29	2.4%
2007	34	2.8%
2008	29	2.4%
2009	28	2.3%
2010	Data not recorded	2.4%

Note. Adapted from Lapchick, R. (2010b). Racial and Gender Report Card, 2010. Orlando: Institute for Diversity and Ethics in Sports, University of Central Florida.

National Basketball Association (NBA)

Lapchick (2010c) found that only three individuals, approximately 1% of the total players in the National Basketball Association (NBA), identified as Asian American or Asian during the 2009-2010 season. This is compared to 81 players who identified as White (18%), 339 players who identified as African-American (77%), and 14 players who identified as Latino (3%). The number of Asian Americans in the NBA has remained relatively stable over the past nine seasons, as evidenced by the percentage never rising over 1% of the total number of players. Table 2.6 presents the numbers and

percentages of Asian Americans in the NBA from the 2001-2002 season to the 2009-2010 season.

Table 2.6
Asian American Athletes in the National Basketball Association from 2001-2010.

Season	# of Asian Americans	% of Asian Americans
2001-2002	Data not recorded	<1%
2002-2003	Data not recorded	Data not recorded
2003-2004	3	<1%
2004-2005	3	<1%
2005-2006	2	<1%
2006-2007	2	<1%
2007-2008	2	<1%
2008-2009	3	1%
2009-2010	3	1%

Note. Adapted from Lapchick, R. (2010c). Racial and Gender Report Card, 2010. Orlando: Institute for Diversity and Ethics in Sports, University of Central Florida.

Women's National Basketball Association (WNBA)

In 2010 season, there were 0 people in Women's National Basketball Association (WNBA) who identified as Asian American or Asian. This is compared to 26 players who identified as White (16%), 113 players who identified as African American (69%), and 1 player who identified as Latino (<1%). These statistics have been relatively stable over the past nine years, with the percentage of Asian Americans remaining below 1% (Lapchick, 2010d). At the professional level, it appears that the underrepresentation of

sport participation among Asian Americans is consistent across gender. Table 2.7 displays the number of Asian Americans in the WNBA from 2002-2010.

Table 2.7
Asian American Athletes in Women's National Basketball League from 2002-2010.

Season	# of Asian Americans	% of Asian Americans
2002	Data not recorded	<1%
2003	Data not recorded	Data not recorded
2004	0	0%
2005	0	0%
2006	1	<1%
2007	1	<1%
2008	0	0%
2009	0	0%
2010	0	0%

Note. Adapted from Lapchick, R. (2010d). Racial and Gender Report Card, 2010. Orlando: Institute for Diversity and Ethics in Sports, University of Central Florida.

Asian Athlete versus Asian American Athlete

An examination of Asian Americans in professional sports must include the relatively unbroached discussion of Asian athletes versus Asian American athletes. According to Whang (2009), Asian athletes are defined as individuals who identify as citizens of an Asian country who migrated to the United States to play sports. Comparitively, Asian American athletes are individuals who self-identify as individuals residing in the United States with origins of Asian descent. Recently, an upsurge of international athletes has been led by athletes with Asian heritage playing professional

sports in the United States. As a result, statistics of Asians or Asian Americans in sports, especially elite sports, may be skewed because of the increasing number of international players in the United States (Whang, 2009). This is significant because if international players from Asia are increasingly recruited and are playing for sports teams in the United States, then statistics on participation of individuals who identify as Asian American may be even smaller than indicated by statistics.

Implications

Only in the past ten years have statistics been gathered on Asian American sport participation at the collegiate and elite level. Analysis of data reveals that participation rates of Asian Americans in sport has remained extremely low and relatively stable for the several years. Additionally, the numbers of players who identify as Asian in athletes in the United States may also include athletes who have been internationally recruited from Asia to participate in sports. Underrepresentation of Asians in sports continues to exist and be a prominent issue. Although the underrepresentation of other ethnic and racial groups has received some attention in literature, the dearth of Asian Americans and factors that influence Asian American sport participation "are rarely discussed" (Wang, 2005, p.272). A large percentage of studies that have approached the issues of ethnicity, race, and sport do so in relation to African American participation, and more recently, Latinos. As a result, research on sport participation of Asian Americans continues to be scarce (Stodolska & Alexandris, 2004).

In the present study, the sport participation behavior of South Asian Americans will be examined. The within-group differences in the racial category of Asian Americans requires acknowledgement and action to more accurately investigate sport

participation behaviors and patterns by investigating sub-groups within Asian Americans, such as South Asian Americans. It is imperative that researchers be cognizant and sensitive to differences that may exist between cultural groups within Asian Americans and the ways these differences may influence sport participation patterns and behaviors.

Expectancy-Value Theory of Achievement Motivation

Sport participation has been examined within a multitude of theoretical scopes. One theoretical framework that has evaluated sport participation is the expectancy-value theory of motivation. Expectancy-value theory has been instrumental in connecting motivation with choice, persistence, and performance (Wigfield & Eccles, 2000). Achievement motivation researchers have focused mainly on explaining people's choice of achievement tasks, persistence on these tasks, vigor in carrying them out and performance on them (Wigfield & Eccles, 2000; Eccles, Wigfield, & Schiefele, 1998;). Many variations of achievement motivation theories exist, with much of the variability attributed to how the constructs explain choice, persistence, and performance (Wigfield & Eccles, 2000).

The foundational tenets of this theory rests on how an individual's choice, persistence, and performance of a task can be explained by the beliefs they hold about how they will perform on the activity, and the extent to which they value the activity (Atkinson, 1957; Eccles et al, 1983; Wigfield, 1994; Wigfield & Eccles, 1992). The work of Atkinson, Battle, Crandalls, Feather, and Eccles have molded the theory into an extensive framework to examine the interconnectedness of individuals' expectancies and values for success and their motivation to perform tasks (Wigfield, 1994). In the

following sections, the development of expectancy-value theory of achievement motivation will be reviewed.

In his influential article, Atkinson (1957) examined motivation in the context of risk-taking. Atkinson outlined two paths to examine risk-taking behavior: 1- "an individual's selection of one path of action among a set of possible alternatives" and 2- "the amplitude or vigor of the action tendency once it is initiated, and for its tendency to persist for a time in a given direction" (Atkinson, 1957, pp. 359). Expectancy, as defined by Atkinson, is "a cognitive anticipation, usually aroused by cues in a situation, that performance of some act will be followed by a particular consequence," (Atkinson, 1957, pp.360). Originally conceptualized as incentive, Atkinson defined what is now referred to as value as the "relative attractiveness of a specific goal that is offered in a situation, or the relative unattractiveness of an event that might occur as a consequence of some act" (Atkinson, 1957, pp.360).

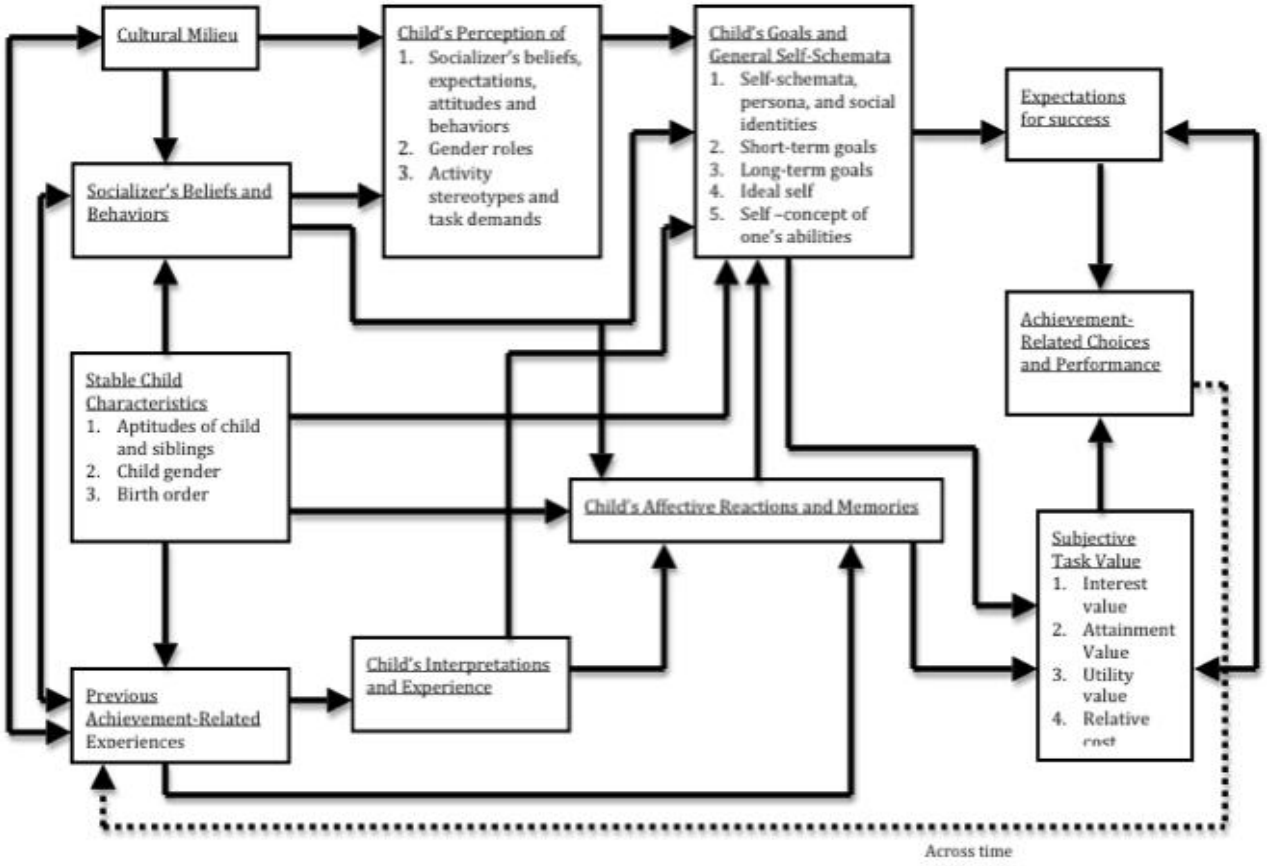
In his book *Introduction to Motivation* (1964), Atkinson introduced expectancy-value theory. His model links achievement performance, persistence, and choice directly to an individual's expectancy and value beliefs (Eccles & Wigfield, 2002). Modern expectancy-value theories share a foundational basis of Atkinson's model but also include many other factors. Revised expectancy-value theories draw connections among a larger group of psychological and social/cultural factors. Additionally, in contrast to Atkinson's original work, these versions of the theory assume expectancies and values to be positively related to each other (Eccles & Wigfield, 2002). In the past three decades, researchers have expanded the theory, and many models have emerged, emphasizing and

incorporating sociocultural factors. For the purpose of this research study, a model that includes social and cultural factors will be discussed in the next section.

Eccles' Model of Expectancy-Value

Eccles and her colleagues (1983) proposed one variation of an expectancy-value model of achievement. Developed in the United States, the model was initially used by researchers in the area of education and human development. However, the model has transferred to be an applicable framework in sociology and sport psychology (Dixon, Werner, Bruening, 2008, Fredericks & Eccles, 2002; Eccles & Harold, 1991; Weiss & Glenn, 1992). The foundational components of the model allow for a comprehensive examination of complex processes, such as decisions regarding sport participation.

The most recent version of the model assumes that expectancies and values directly influence achievement choices. Expectancies and values are also assumed to impact performance, effort, and persistence. Additionally, values and expectancies are influenced by social cognitive variables such as task-specific beliefs, perceived difficulty of different tasks, and individuals' goals, self-schema, and affective memories. The social cultural variables, in turn, are influenced by individuals' perceptions of their own experiences in the past and other socialization influences (Wigfield & Eccles, 2000; Eccles et al, 1983; Wigfield & Eccles, 1992). The expectancy-value model provides researchers with a cohesive map of how expectancies of abilities, skills, interests, and values intersect to shape individuals' experiences and their choices to begin and persist in activities (Dixon, Warner, & Bruening, 2008). Dixon and colleagues (2008) write "This model assumes that the socializing agents' values, expectations, and role modeling behaviors influence a child's choice of academic and co-curricular activities and his or



her choice in continuing such activities (p.156). Although the model has many intertwined components, according to this model, the most important predictors of choice are expectancies and subjective task value (Fredricks & Eccles, 2005). A review of the important components of this model are discussed in depth below. Figure 2.1 displays Eccles' most recent version of the model.

Figure 2.1
Model of Expectancy-Value

Expectancies

Eccles and colleagues (1983) defined and measured expectancies for success as children's beliefs about how well they will do on an upcoming task, either in the immediate or longer term future. Expectancies are different from ability beliefs because

expectancies are examined for in the future, whereas ability beliefs are focused on present ability (Eccles et al, 1983; Wigfield & Eccles, 2000). Statistically however, task-specific beliefs and expectancies are highly related (Eccles & Wigfield, 1995;Wigfield & Eccles, 2000). The following questions are examples of items measuring expectancies in the math domain (Wigfield & Eccles, 2000).

Example 1: How well do you expect to do in math this year?

Example 2: How good would you be at learning something new in math?

Other areas of research have also examined the expectancies construct. For example, Bandura (1997), in his discussion of self-efficacy, differentiated efficacy expectations and outcome expectations. Bandura defined efficacy expectations as an individual's belief that he or she can accomplish a task and outcome expectations as the belief an individual has that a certain action will lead to a certain outcome. Bandura's criticism of expectancy-value theorists stemmed from their historical focus on outcome expectations in their models. Bandura also argued that efficacy expectations were more predictive of performance and choice than outcome expectations (Wigfield & Eccles, 2000). Wigfield and Eccles (2001) agreed with Bandura's claim of how efficacy expectations are a stronger predictor of performance and choice. Wigfield and Eccles assert, however, that their models focus on individuals' own expectations of success instead of outcome expectations and share more similarities with Bandura's efficacy expectation construct than the traditional outcome expectancy construct (Wigfield & Eccles, 2000).

Task-related beliefs

Eccles et al. (1983) defined ability beliefs as an individual's perception of his or her current competence at a particular activity. "In the expectancy-value model, ability beliefs are conceived as broad beliefs about competence in a given domain, in contrast to one's expectancies for success on a specific upcoming task" (p.312). However, empirical work has shown that children and adolescents do not distinguish between these two different levels of beliefs. Eccles and Wigfield wrote "Apparently, even though these constructs can be theoretically distinguished from each other, in real-world achievement situations, they are highly related and empirically indistinguishable" (Eccles & Wigfield, year p.119). Other researchers have also examined ability beliefs in their respective theories. For example, Weiner (1985) examined ability beliefs as a relatively stable characteristic in his work with attribution theory. He proposed that individuals had little control over ability beliefs and assumed that ability beliefs had strong motivational consequences. In his self-worth model, Covington (1992) examined ability beliefs and their relationship with an individual's self-worth. Similar to Weiner, Covington also viewed ability beliefs as a steady construct. Researchers operating from other theoretical frameworks, such as self-determination theory and developmental theories, have also examined and incorporated ability beliefs into their research models.

Researchers often differ in the manner they measure ability-related beliefs. For example, Bandura (1997), proposed that ability-related beliefs, or efficacy, should be measured with a certain level of specificity. He argued that ability-related beliefs should be measured specifically because measures of beliefs are more closely related to behavior. Oftentimes, a researcher attempting to measure ability-related beliefs at the

task-specific level may ask individuals about how confident the individual is about being able to accomplish the task (Wigfield & Eccles, 2000). However, measuring an individual's ability-related beliefs may also be measured in more general terms. For example, in the academic domain, Bandura, Barbaranelli, Caprara, and Pastorelli (1996) grouped all academic subjects together and measured academic efficacy. Wigfield and Eccles (2001) report measuring ability-related beliefs at a domain level instead of at the task level.

Another difference in the approach of the ability-related beliefs construct is how individuals are asked to judge their beliefs. For example, self-efficacy researchers tend to focus only on individuals' beliefs about how confident they are in completing a certain task whereas some researchers ask individuals to report their confidence on completing a certain task in addition to report their confidence on completing a certain task in comparison to others (Wigfield & Eccles, 2000).

The following questions are examples of items measuring ability-related beliefs in the math domain (Wigfield & Eccles, 2000).

Example 1: How good in math are you?

Example 2: If you were to list all the students in your class from the worst to best in math, where would you put yourself?

Values

This research study will pay particular attention to the construct of value, as defined by Eccles et al (1983) and therefore, will be discussed in more depth than the other constructs of the model. Eccles et al. (1983) identified multiple components of the achievement value construct identified in their model: 1-attainment value, 2- intrinsic

value, 3- utility value, and 4-cost. Building on the foundation set by Battle's work (1965, 1966), Eccles et al. defined attainment value as the importance of doing well on a given task. Additionally, Eccles et al (1983), incorporating the work of self-schema and identity theorists, connected attainment value to "the relevance of engaging in a task for confirming or disconfirming salient aspects of one's self-schema (i.e., because tasks provide the opportunity to demonstrate aspects of ones actual or ideal self-schema, such as masculinity, femininity, and or/competence in various domains, tasks will have higher attainment value to the extent that they allow the individual to confirm salient aspects of these self-schemata)" (Eccles & Wigfield, 2002, p.120).

Intrinsic value is defined as "the enjoyment one gains from doing the task" (Wigfield & Eccles, 2000, pp. 72). Intrinsic value also examines the subjective interest the individual has in the task. The examination of the subjective interest collaborates with the work on intrinsic motivation (Harter, 1981; Deci & Ryan, 1985;) and interest and flow (Schiefele, 1999).

Utility value is defined as how a certain task fits into the future plans of an individual. Eccles and Wigfield (2002) further define utility value as "how well a task relates to current and future goals" (p.120). According to Eccles and Wigfield (2002), tasks or activities can have a future oriented positive value. Even if an individual does not have intrinsic motivation or interest in a task, he or she can still value the task because of how the task may be valued in the future. Eccles and Wigfield (2002) provide the following example: " For instance, students often take classes they do not particularly enjoy but that they need to take to pursue other interests, to please their parents, or to be with their friends. In one sense then this component captures the more 'extrinsic' reasons

for engaging in a task" (Deci & Ryan, 1985). It is important to note the relationship between the external value the person holds for a task and his or her short and long term goals (Eccles & Wigfield, 2002).

Finally, cost "refers to how the decision to engage in one activity (e.g. doing schoolwork) limits access to other activities (e.g. calling friends), assessments of how much effort will be taken to accomplish the activity, and its emotional cost" (Wigfield & Eccles, 2000, pp.72). Overall, cost captures the negative consequences for engaging in a certain task (Eccles & Wigfield, 2002).

The different aspects of values (attainment value, intrinsic value, utility value) proposed by Eccles et al.'s model has been empirically validated. Eccles and Wigfield (1995) analyzed data from a longitudinal study examining gender differences in achievement beliefs and values about mathematics and English. The participants were students enrolled in grades 5th through 12th. Confirmatory factor analysis illustrated that three task values factors emerged in the data (Eccles & Wigfield, 1995). Eccles and colleagues have argued that the multidimensional construct of value is a significant determinant of an individual's achievement behaviors and choices, such as sport participation. Each component within task value- intrinsic, attainment, utility, and cost- are believed to directly uniquely influence achievement choices, including sport participation (Stuart, 2003).

Other researchers have also examined the role of value in motivation. For example, in their work on self-determination theory, Deci and his colleagues incorporated a construct similar to intrinsic value called intrinsic motivation (Wigfield & Eccles, 2000;

Deci & Ryan, 1985). Utility value has also been referred to as extrinsic motivation by researchers (Wigfield & Eccles, 2000; Deci & Ryan, 1985).

Much of the research on subjective value beliefs has concentrated on attainment value, intrinsic value, and utility value. Attainment value and utility are empirically supported as the strongest predictors of current and future choices of sports activities (Eccles & Harrold, 1991).

Factors that Influence Levels of Sport Participation

Parental influence on participation

Within the framework of the expectancy-value achievement motivation model (Eccles et al., 1983), researchers have validated the assumptions that the decisions of individuals to participate in sport are made within a social context that influences one's choices (Dixon, Warner, Bruening, 2008; Fredericks & Eccles, 2002). One factor that has emerged repeatedly in research is the role of influential people on decisions regarding sport participation. The examination of socializers of sport participation has revealed the significant role that parents, coaches, siblings, and coaches have in influencing the attitudes, behaviors, and values of children (Dixon, Warner, Bruening, 2008; Coakley & White, 1999; Fredricks & Eccles, 2004;). The roles of parents, teachers, coaches, etc. can function as influences on sport participation in a variety of mechanisms. For example, socializers can provide encouragement, help remove barriers in accessing sports, and teach sport norms and values (Greendorfer, 1991; Greendorfer & Bruce, 1991;). One of the most researched socializers of sport participation is parents. Dixon, Warner, and Bruening (2008) write "a review of the socialization into sport literature and Eccles' model reveals that parents have the most direct impact on socialization when a child is

young." (p.67). The expectancy-value model assumes that parents serve three main functions as influencers of sport participation: 1-role models, 2- providers of experience, and 3- interpreters of experience (Fredericks & Eccles, 2002; 2005).

Parents as Role Models

Research on parents as role models has been the main focus in literature (Dixon, Warner, & Bruener, 2008). "Parents act as role models when their behaviors demonstrate the value they place on sport and physical activity through actively engaging in coaching, participating, or just enjoying sport" (Dixon, Warner, & Bruener, 2008, p.113). In their function as role models, parents have been found to be significant influencers on sport participation in their children. An epidemiological research study found a relationship between a parent's participation in sports and children's participation in sports (Sallis, Prochaska, & Taylor, 2000). Additionally, the Wilson Report (Wilson Sporting Goods, 1985), found that approximately 70% of women in the United States who participated in sport also had parents who engaged in sport and fitness. In a more recent study, Price and colleagues (2008) learned that parent modeling was significantly associated with adolescent and adult female participation in physical activity.

Parents as Providers of Experience

As providers of experience, parents can also help facilitate sport participation "by providing children with resources, equipment, encouragement, and/or opportunities" (Dixon, Warner, & Bruening, 2008, p.541). In a study conducted by Brustad (1993), middle-class athletes and their parents were interviewed about sport participation. Brustad found that initial interest in various sport activities was fueled by parental encouragement for children to try new activities. Additionally, athletes in the study stated

that resources necessary for sport participation, such as transportation, equipment, and cost for participation, were also provided by parents.

Parents as Interpreters of Experience

Parental influence also manifests itself in how children interpret their experiences. Indirectly, parents can convey norms and values about sport participation "by communicating their beliefs, acceptance, and support of their child's participation in sport" (Dixon, Warner, & Bruening, 2008, p.542). Parents may influence children's beliefs and participation through their beliefs about the value of participation in different activities (Jacobs & Eccles, 2000). In a recent article, Bois and colleagues (2002) wrote "…parents are likely to provide encouragement and support for activities that they deem important and in which they perceive their child will experience higher levels of success. So, children will tend to behave in accordance with their parents' beliefs about their potential success and the importance of success in that activity" (Bois, Sarrizin, Brustad, Troulloud, & Cury, 2002, p.312). For example, in a study conducted by Eccles and Harold (1991), it was found that children's perspective on the value of sport involvement of their parents were related to the parents' competence beliefs of the their children. Although scarce in numbers, the studies that have examined the relationship between how parents' beliefs influence a child's sports-related beliefs support this relationship empirically (Dixon, Warner, & Bruening, 2008). Parental interpretation and valuing of sport participation is an important component of Eccles' Expectancy-Value model because it assumes that children internalize their parents' values and expectations (Dixon, Warner, & Bruening, 2008). However, in the sports domain, the relationship between a

parent's value of athletics and the influence on children's beliefs has not been studied thoroughly and in-depth and requires further examination (Fredricks & Eccles, 2005).

Longevity of Parental Influence

The Eccles' Value-Expectancy model assumes that if parents value sport participation, children are more likely to participate in sport. However, the model currently assumes that the influence of parents is likely to impact sport participation when children are young (Dixon, Warner, & Bruening, 2008). Recent research has begun to extend the model to examine the longevity of parental influence on sport participation. For example, in their qualitative study, Dixon, Warner, and Bruening (2008), examined the distal and proximal influence of parents on child involvement in sport on 17 female NCAA Division 1 coaches. Analysis of data supported Eccles' model of expectancy-value through the emergence of three themes from interviews of the participants: parents serving as role models, parents providing experiences, and parents interpreting experiences. Participants expressed that their persistent involvement in sport (currently as coaches) was a result of their parents' continued interpretation of sport experiences as females. The results of the study support the hypotheses that parents continue to influence their children's sport participation distally and proximally (Dixon, Warner, & Bruening, 2008). Fredricks and Eccles (2002) also found support for the distal impact of parent influence on sport participation. In their study, results suggested that parents were influential in children's beliefs in success in math and sport participation. Moreover, the relationship between parental influence and child beliefs strengthened in high school. Similar results were found by Weiss and Barber (1995) in their study of college female volleyball players. Results indicated that the athletes received support from socializing

agents (parents, peers, coaches) from childhood to college. This suggests that parental influence may have impacted the athletes' decisions to continue participating in sport after childhood, even though parental influence may not have been direct or intentional (Weiss & Barber, 1995).

Acculturation

Acculturation was first defined as "those phenomena which result when groups of individuals sharing different cultures come into continuous first-hand contact, with subsequent changes in the original pattern of either or both groups" (Redfield, Linton, & Herskovits, 1936, p. 149). More commonly in recent literature, acculturation has been defined as the cultural learning process that occurs when members of two or more culturally distinct groups come into contact with one another, through a process where the non-dominant group (i.e., Asian American) adapts to the norms of the dominant group (i.e. European American; Kim & Abreu, 2001; Casas & Pytluck, 1995). However, this definition of acculturation only accounts for individuals' adaption to the U.S. culture while neglecting to include the retention of one's culture of origin- an important and salient factor for many Asian Americans in the United States (Kim, 2007a). A multidimensional exchange, acculturation is where individuals change, accommodate, and/or adopt cultural patterns of the mainstream society (Kohatsu, 2005). Minority individuals who identify with the minority populations possibly integrate the beliefs and behaviors of the mainstream culture into their own cultural practices (Berry, 1980). Acculturation has become an integral component in understanding racial/ethnic minorities' psychological development. Although acculturation occurs on at the

individual and societal level, much of the focus of researchers has focused on the change that occurs at the individual level.

Models of Acculturation

In the growth of research on acculturation, several models have emerged that have examined the adaptation process of ethnic minorities. These models are categorized by their dimensionality: unidimensional or multidimensional. Unidimensional models view acculturation as a linear process that involves an individual gaining cultural patterns of the mainstream culture while losing cultural patterns of their culture of origin (Kohatsu, 2005). Multidimensional acculturation models conceptualize the process of adaptation as both the culture of origin and the host culture coexisting with each other. Cultural patterns that are gained from the host culture do not result in a subsequent loss in the cultural patterns from the culture of origin. Multidimensional acculturation models view each culture to exist on their own continuum (Kohatsu, 2005).

One of the most referenced acculturation models is the two-dimensional model of acculturation proposed by Berry (Kohatsu, 2005). Berry (1980) put forth a model that examines the degree to which an individual wishes to remain culturally similar with his or her culture of origin as well as the extent to which an individual desires to have interactions on a daily basis with other groups, especially groups part of the dominant culture (Leong & Chou, 1994). Berry (1980) proposed four various levels of adherence to the dominant culture and the culture of origin: integration, assimilation, separation, and marginalization. Berry defined integration as occurring when an individual takes an active interest in his or her culture of origin while still maintaining daily interactions with groups of the dominant culture. Berry defined assimilation as occurring when an

individual rejects his or her culture of origin while maintaining daily interactions with members of the majority culture. An individual who assimilates does not display interest in his or her culture of origin. Separation occurs when an individual places values and interest only in the culture of origin and avoids contact with the majority cultural group. Finally, marginalization takes place when an individual displays no interest in maintaining relationships with either the majority culture or his or her culture of origin. The view of acculturation as a unidimensional process is contrary to the literature that has found and emphasizes that adherence to Asian and Western cultures are two separate process (Berry & Kim, 1988; Berry et al, 1989; Kim, 2007b).

Influence of Acculturation on Sport Participation

The influence of acculturation on sport participation in Asian Americans has been relatively unexplored in research. However, some research disciplines have evaluated the role of acculturation on physical activity among minority groups. These studies have found that with increasing acculturation, the levels of physical activity of ethnic and racial minorities increase to match levels of physical participation among the host population (Berrigan et al., 2006; Lara et al., 2005;). However, physical activity has been differentiated from sport participation and generalizations to sport participation must be interpreted with caution.

Only a few research studies have examined acculturation in relation to sports participation among ethnic minority populations. For example, in their study on factors association with sport participation among young Turkish and Moroccan women in the Netherlands, Hosper Nierkens, Valkengoed, and Stronks (2008) found that acculturation was strongly associated with participation in sport among Turkish women, but not among

Moroccan women. However, this study analyzed physical activity along with sport participation. The findings of this study are significant in that they provide an opening to our understanding of the intersection between acculturation and sport participation. The findings in this study suggest that acculturation and sport participation may interact differently among different groups, suggesting complex interactions that deserve attention in research.

Another study that researched the link between acculturation and sport participation was conducted on Hispanic athletes. In his study, Ryska (2004) examined the influence of acculturation on sport participation. Results suggested that athletes varying in levels of acculturation held different interpretations of their abilities of sport. Athletes who scored high in the acculturation measure (to U.S. culture) adopted an ego goal orientation, with tendencies to perceive themselves as competent on the basis of achieving sports goals that emphasize favorable social comparisons such as outperforming opponents, demonstrating superior ability with less effort, and receiving positive external evaluations (Ryska, 2004). In contrast, athletes who scored low in the acculturation measure adopted a task goal orientation. These individuals had tendencies toward viewing their personal competence within an achievement setting largely in terms of self-based goals such as expending effort, learning skills, and improving upon previous performance (Ryska, 2004).

Ryska conducted another study on Mexican-American adolescent athletes and the impact of acculturation on motivation. Key findings from the study suggest that the degree of acculturation among young Mexican-American athletes is “significantly related to the sources of information they use to derive perceptions of personal competence

within the competitive sport setting" (Ryska, 2001, p.540). Although the author recommends interpreting results of both these studies with extreme caution, these research studies illustrate how examining acculturation in the context of sport participation could provide valuable information on sport participation patterns, behaviors, and related internal processes among ethnic minorities. Preliminary research on acculturation and sport participation in other populations indicates that research on the influence of acculturation on Asian American sport participation requires attention.

A research study conducted on South Asian Canadian adolescents found that recently immigrated youth to Canada participated less in sport compared to Canadian-born youth (Cragg, Cameron, Craig, & Russell, 1999). Specifically, results indicated that 59 percent of recently immigrated youth never participated in sport compared to 42 percent of youth born in Canada. Furthermore, the study also found a relationship between acculturation in language and sport participation. Immigrants who spoke languages other than the English or French reported lower levels of sport participation and lower involvement in physical activity (Taylor & Doherty, 2005). In Latinos, the relationship between language acculturation and physical activity has also been examined. For example, in a study conducted by Liu, Probst, Harun, Bennett, and Torres (2009), acculturation was measured by primary language spoken at home and generation status (first, second, third, or more). Their results indicated that generation status was highly predictive of physical activity participation. First-generation adolescents were the least likely to participate in physical activity, second-generation adolescents were the next least likely to participate in physical activity, and third-generation were the most likely to participate in physical activity. This suggests that language acculturation may be

a predictor in recreational physical or sport activity. Similar results were found among recent immigrants from China. In a study conducted by Yu and Berryman (1996), the relationship between acculturation and sport participation was examined in adolescents who recently immigrated from China. Researchers found that as the participants' level of acculturation increased, their level of sport participation also increased. Additionally, results indicated a significant positive association between level of acculturation and sport participation and a significant negative association between level of acculturation and perception of barriers. If research has found that language acculturation may be a predictor in sport participation rates, then acculturation in other dimensions requires investigation.

In a study conducted by Stodolska and Alexandris (2004), the role of recreational sport in Korean and Polish immigrants in the United States was examined. Qualitative analysis of the study revealed that there were significant changes in recreational sport participation associated with the post-arrival period of their immigration. Some participants reported a decrease in their participation in exercise and recreational sport participation while others reported an increase in their participation. Stodolska and Alexandris found that the increase or decrease of participation in recreational sport was mediated by ethnicity, social class, and the level of participation in their country of origin. However, regardless of social class, ethnicity, and level of participation in the country of origin, recreational sport participation was decreased after the initial post-arrival period. Following the period after initial adaptation to the United States, middle class Korean and Polish interviewees reported an increase in their sport participation. Several middle class Korean and Polish interviewees also commented that "they wanted

to live like Americans" and live "normal lives" (p. 397). Stodolska and Alexandris write that "for them, 'normal' meant life enjoyed by middle class Americans, characterized by regular work hours, a house in a middle class neighborhood, out of town trips, and a certain amount of physical recreation" (p.397). However, similar results were not found with working class Korean and Polish immigrants. Working class immigrants reported that the downward mobility in social class, lack of financial stability, and manual labor jobs did not allow for leisure sport participation and exercise. Qualitative data suggests that middle class immigrants in Stodolska and Alexandris' study used sport participation as a way to acculturate to the United States. If studies suggest that recent immigrants have varying sport participation rates after their arrival to the U.S., then it is imperative that future research examines factors that may contribute to changes in their participation rates as they acclimate to the United States.

Asian Americans and Sport Participation Literature

Many limitations exist in the current scope of literature on sports participation among Asian Americans. First, many studies that examine factors that influence sport participation are limited in the racial/ethnic variability in the sample pool. Research studies that have made large contributions to our understanding of sport participation, with their tendency of a homogenous sample, must be interpreted with caution when generalizing key findings to racial and ethnic groups.

In the study conducted by Jambor (1999), the parents of children in soccer were compared to parents of non-participating children in a sample of 165 parents. The childrens' ages ranged between 5 and 10. Results indicated a significant difference in beliefs of benefits of sport participation between parents of children enrolled in soccer

and parents of non-participating children. In comparison to parents of non-participating children, parents of children participating in soccer perceived benefits in the areas: age and skill appropriate activity, receiving health and recreation benefits, previous past experiences, pleased with coaches, accessible location and programs, and congruence with family schedule. This suggests that the parents' perceived benefits of their child's participation in soccer may influence their value of soccer and thus, the enrollment of their child in soccer. It appears that the value of sport participation and the level of importance that the parent held about soccer participation, directly influenced the child's level of participation. Although the study found strong relationships between a parent's perceived benefit of soccer and child participation in soccer, the results must be interpreted with caution. Of all the participations, 80% of the parents identified as Caucasian. However, the remaining 20% of the parents were not described in terms of their ethnic/racial makeup.

Many of the foundational research studies in examining components within value, as defined by Eccles and colleagues, have also had homogenous samples. These studies, although integral to our understanding of the relationship between achievement value and achievement choice, have not been examined sufficiently with minority groups, such as Asian Americans. For example, in a 4-year longitudinal study by Eccles and her colleagues (1993), the development and socialization of children's task-specific abilities and activity choices were investigated. Children completed questionnaires assessing their beliefs about sports and several other domains. The sports domain questions concentrated on sports in general and tumbling and activities involving a ball. Key findings of the study suggest that young children (younger than first grade) are able to differentiate

between ability beliefs and task values of the aforementioned domains. Although the study examines young children and provides general implications for understanding ability belief and task values, the homogenous racial sample require the results to be interpreted with caution. Of the 865 elementary aged children in the study, less than 5% of the students were identified as African-American, Asian American, and other ethnic and racial groups combined. The small number of Asian Americans in the sample becomes problematic in generalizing information about early aged children's ability beliefs and task values of sports.

Summary

Thus far, the study of sport participation behaviors and patterns in Asian Americans has been relatively unexplored. Although researchers have identified the underrepresentation of Asian Americans in sport, research has scarcely evaluated factors contributing to lower participation. Theoretical literature on sport participation has focused on how socializers, such as parents, influence the participation rates of children. Parents have been identified to interact with sport participation of children by serving as role models, providers of experience, and interpreters of experience by transmitting values and norms of sport participation. With the large amount of research concentrated on parental influence on sport participation, it is imperative that studies add to the literature to help strengthen our understanding of how parental influence is related to sport involvement for other ethnic and racial groups, such as Asian Americans. It remains unclear how parental influence, specifically the interpretation of experience and transmission of values of sport participation, functions in Asian Americans. One of the

aims of this research study was to evaluate the role of parental influence on sport participation among Asian Americans.

Research examining sport participation indicates that that value of sport participation is one of the strongest predictors of participation. However, no empirical study has provided sufficient evidence to support that this relationship is significant among Asian Americans. This present study aimed to understand how value of sport participation, among parents and children of South Asians, may contribute to sport participation.

Many studies on sport participation behaviors and patterns do not evaluate the role of cultural experiences of individuals in their choices about sport participation. Although one of the strengths of Eccles' model has been widening the scope of achievement motivation choices to include cultural factors, researchers have rarely incorporated the examination of cultural factors in their studies, especially with regard to Asian Americans. One such variable, acculturation, is an important factor for understanding the adjustment of ethnic/racial minorities to the dominant culture and has not been evaluated sufficiently in research. Most academic fields, in general, have failed to evaluate the relationship between cultural experiences of parents and children's sport participation choices. One main purpose of this research study was to examine how acculturation may impact sport participation among Asian Americans.

This present study focused on understanding how acculturation may contribute to the sport participation behaviors of Asian Americans. Specifically, this study addressed the gaps in the literature on Asian Americans' sport participation by examining how the level of parental acculturation influences sport participation in children.

As Asian Americans have typically been grouped together as a whole, this study sought to understand the sport participation of a more culturally homogenous subset of Asian Americans. To specifically examine the relationship between parental acculturation on value of sport participation among South Asian Americans, the following research questions were tested in this study:

1. Does parent acculturation significantly predict child sport participation in South Asian Americans ?
2. Does parent achievement value of sport mediate the relationship between parent acculturation and child sport participation in South Asian Americans?
3. Does parent achievement value of sport predict child sport participation in South Asian Americans?
4. Does child achievement value of sport mediate the relationship between parent achievement value of sport and child sport participation in South Asian Americans?
5. Does parent achievement value of sport and child achievement value of sport mediate the relationship between parent acculturation and child sport participation in South Asian Americans?

CHAPTER III

METHODS

In the following chapter, the overall purpose, research questions, and hypotheses of the study are reviewed. Second, information on the study participants is presented. Third, a description of the research design is provided that includes predictor and outcome variables, study measures, data collection procedures, and statistical analysis.

Purpose of the Study

The purpose of this study was to investigate the factors that influence sport participation of South Asian Americans. No study thus far has examined the influence of parent acculturation on achievement value of sport participation in Asian Americans. Research has supported the influental nature of parents on several domains, including sport participation. Additionally, achievement value of sport participation has shown to predict sport participation in individuals. However, social and cultural factors remain relatively unexplored in regards to sport participation. Acculturation is an important component in the experience of South Asian Americans but remains unexamined in sport participation literature. This study examined the influence of parent acculturation on achievement value of sport and sport participation rates in South Asian Americans.

Research Questions

1. Does parent acculturation significantly predict child sport participation in South Asian Americans ?

2. Does parent achievement value of sport mediate the relationship between parent acculturation and child sport participation in South Asian Americans?

3. Does parent achievement value of sport predict child sport participation in South Asian Americans?

4. Does child achievement value of sport mediate the relationship between parent achievement value of sport and child sport participation in South Asian Americans?

5. Does parent achievement value of sport and child achievement value of sport mediate the relationship between parent acculturation and child sport participation in South Asian Americans?

Hypotheses

1. Parent acculturation will significantly predict child sport participation in South Asian Americans. Higher levels of parent acculturation will predict higher levels of sport participation among their children, whereas lower levels of parent acculturation will predict lower levels of sport participation among their children.

2. Parent achievement value of sport will mediate the relationship between parent acculturation and child sport participation.

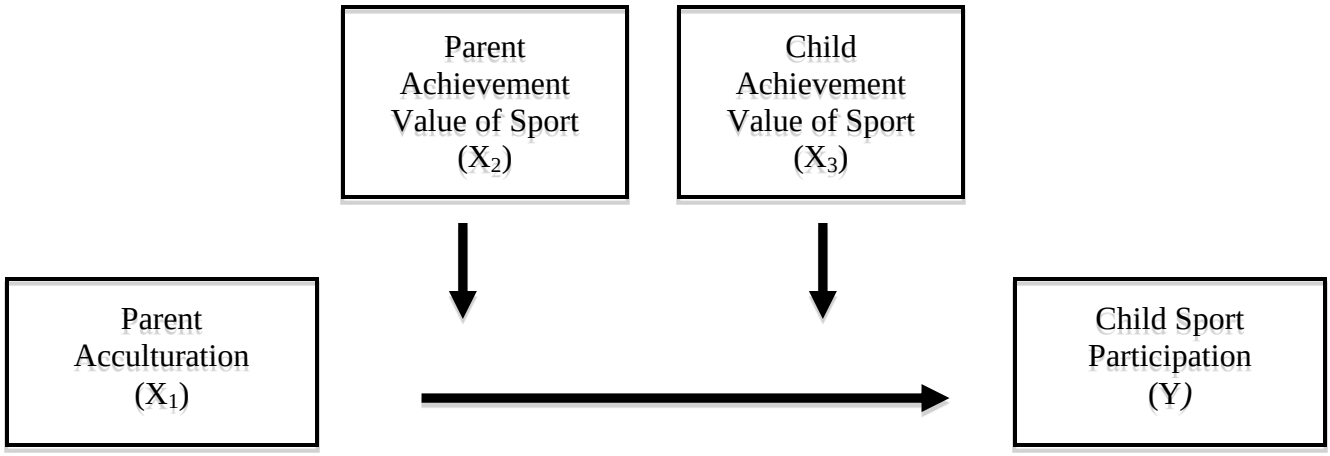
3. Parent achievement value of sport will significantly predict child sport participation in South Asian Americans. Higher levels of parent achievement value of sport will predict higher levels of child sport participation, whereas lower levels of parent achievement value of sport will predict lower levels of child sport participation.

4. Child achievement value of sport will mediate the relationship between parent value of sport and child sport participtaion.

5. Parent achievement value of sport and child achievement value of sport mediate the relationship between parent acculturation and child sport participation in South Asian Americans.

The study's oveall hypothesized model between all variables is presented in Figure 3.1.

Figure 3. 1
Parent Achievement Value of Sport (X_2) and Child Achievement Value of Sport (X_3) Mediating the Relationship Between Parent Acculturation (X_1) and Child Sport Participation (Y)



Participants

An a priori analysis was conducted using the program G*Power 3.1. An a priori analysis helps to identify the necessary sample size for a specific significance level, the desired statistical power, and the desired effect size (Faul, Erdfelder, Buchner, & Lang, 2009). For a multiple regression test with an effect size of .15, alpha at .05, power at .90, and six total predictors (three acculturation subscales, three achievement value dimensions), the sample size required is 126. This means that a minimum of 126 parent-child pairs were needed to find a high effect for the regression analyses. This study had 128 dyads and was large enough to satisfy the minimum requirement for the regression analyses.

Children (ages 18-30) and their parents were recruited to participate in the study and complete all measures. Study participation was limited to participants who were 18

years or older, English speaking, and self-identified as South Asian or South Asian American. Additional information regarding the recruitment process will be described in the data collection section of this study.

Procedures

The primary investigator recruited participants for this study from three sectors: 1) South Asian American and South Asian community organizations in the Midwest; 2) South Asian American and South Asian professional organizations in the Midwest; and 3) South Asian and South Asian American religious organizations in the Midwest.

All participation was completed in person or a web-based survey. Participants were provided with an informed consent document. The informed consent document highlighted the purpose of the study, the risks associated with the study, and contact information of the principal investigator. At the end of the consent form, participants were asked to provide consent by signing their name or clicking "Next" on the web-based survey.

Participants were then asked to complete several questionnaires. First, participants were asked to complete a demographics questionnaire. This questionnaire collected information regarding participants' gender, age, ethnicity, religion, country of origin, birthplace, number of years in the United States, participants' income level, and family income level. Second, participants were asked to complete the Asian American Multidimensional Acculturation Scale (AAMAS), a measure used to assess behavioral acculturation. Participants were also asked to complete one portion of the Self-and Task Perception Questionnaire to assess achievement value of sport participation. Finally, participants were asked to report their current and peak sport participation by indicating

the number of hours and weeks spent organized sport activities based on a list of twenty-two sports activities. Participants were also given the option to write in sports that were not included in the list. Overall, the survey took between 15-20 minutes to complete.

All data collection procedures complied with Institutional Review Board standards for the safekeeping of research participant information. To ensure safekeeping of research participation information, each participant was assigned a participant identification number (PIN). Raw data was stored in a database on password-protected computers.

Measures

Predictor Variables

Demographic Measures

A demographic questionnaire was constructed to gather basic information with regard to age, gender, ethnicity, religion, country of origin (India, Pakistan, Nepal, Sri Lanka, etc), birthplace, number of years in the United States, generational status, participants' socioeconomic status, and family's socioeconomic status. Please see Appendix A for a copy of the demographics questionnaire.

Asian American Multidimensional Acculturation Scale (AAMAS)

Parent acculturation was measured using the Asian American Multidimensional Acculturation Scale (AAMAS). The AAMAS is a 45-item scale, developed by Chung, Kim, and Abreu (2004), that assesses levels of acculturation in Asian Americans. The AAMAS has three components that guide the measurement of acculturation in Asian Americans: examination of the acculturation dimension to the host culture, assessment of the Asian culture of origin, and evaluation of the pan-ethnic Asian American culture

(Chung, Kim, & Abreu, 2004). The AAMAS has three subscales, with fifteen items in each subscale: AAMAS- Culture of Origin (AAMAS-CO), AAMAS- Asian American (AAMAS-AA), and AAMAS- European American (AAMAS-EA). Each item on the AAMAS uses a 6-point Likert scale, ranging from *not very much* to *very much*. Within each subscale, ten items measure cultural behavior, three items measure cultural identity, and two items measure cultural knowledge. Scoring the AAMAS is conducted by averaging the scores (ranging from 1 to 6) for each subscale across the fifteen items. Each subscale is independently scored.

Reliabilities of the AAMAS subscales were determined on three separate studies conducted by the developers of the instrument. In an initial study conducted by Chung, Kim, and Abreu (2004), reliability and validity was examined with a sample of 342 Asian American undergraduate students. The Cronbach's alpha for the subscales are as follows: .87 (AAMAS-CO), .78 (AAMAS-AA), and .81 (AAMAS-EA). Concurrent validity was examined by comparing AAMAS scores between the Suinn-Lew Asian Self-Identity Acculturation Scale (SL-ASIA; Suinn, Rickard-Figueroa, Lew, & Vigil, 1987), Cultural Identity Scale- Origin (Oetting & Beauvais, 1991), and Cultural Identity Scale- Anglo (Oetting & Beauvais, 1991). A moderate magnitude of correlation between AAMAS subscales and the SL-ASIA were found (r = -.75 to .32). Results indicated a relatively moderate magnitude of correlation between the AAMAS subscales and the CIS-Anglo (r = -.30 to .49). Correlations involving the subscales of the AAMAS in relation with the CIS-Origin also yielded moderate correlations (r = .26 to .51). Sufficient divergent validity was found between the AAMAS-CO and the Intergenerational Conflict Inventory, an instrument that measures conflict severity and type between generations (r

=-.11 to .20). Furthermore, criterion-related validity was assessed by examining correlations between the three AAMAS subscales and participants' generational status. Results indicated a significant inverse relationship between generational status and the AAMAS-CO (*r* = -.36).

In the second study, 138 Asian American undergraduate students were recruited from a West Coast university to assess reliability and validity. Consistent with results from the initial study, adequate internal reliability was found for each of the AAMAS subscales (*r* = .81 to .89). Criterion-related reliability was also re-assessed by comparing AAMAS subscale scores with participants' generational status. Similar to the initial study, results indicated a significant negative correlation between the AAMAS-CO subscale and generational status (r = -.17). Concurrent validity was assessed by comparing scores of the Asian Values Scale (AVS; Kim, Atkinson, & Yang, 1999) and the three scales of the AAMAS. Results indicated a moderate level of correlation between the AVS and the AAMAS (r = -.25 to .37). Divergent validity was assessed by comparing the AAMAS subscales and the Rosenberg's Self-Esteem Scale (RSES; Rosenberg, 1968), a measure of self-esteem. As expected, researchers found a nonsignificant correlational relationship between the RSES and the AAMAS subscales (*r*= .03 to .17).

In the third study, 44 Korean Americans were recruited to assess test-retest reliability and to further examine internal consistency. Consistent with results from the previous studies adequate internal reliability was found for each of the AAMAS subscales (*r* = .76 to .91). Additionally, test-retest reliability provided to be sufficient (*r* = .75 to .89).

Overall, the subscales of the AAMAS have demonstrated strong reliability and validity in Asian American samples. Internal consistency was adequate and within the acceptable range of reliability for each of the subscales. Specifically, the Cronbach's alpha for each of the subscales between the three studies are as follows .87 to .91 (AMMAS-CO), .78 to .83 (AAMAS-AA), and .76 to .81 (AAMAS-EU). Please see Appendix B for a copy of the Asian American Multidimensional Acculturation Scale.

Self- and Task- Perception Questionnaire

The Self-and Task-Perception Questionnaire (Eccles & Wigfield, 1995) includes 29 items that closely follow the theoretical constructs of achievement value, expectancy, and perceived difficulty as defined by Eccles' expectancy-value model. Although the Self-and Task-Perception Questionnaire was originally constructed for the domain of mathematics, the questionnaire can be modified to measure task value, ability/expectancy beliefs, and perceived task difficulty in a variety of achievement domains. The Self-and Task-Perception Questionnaire has three subscales: Task Value, Ability/Expectancy, and Task Difficulty. Each subscale is scored separately and independently of the other subscales. Analysis of the Self-and Task-Perception Questionnaire empirically supports the differences between task values, task expectancies, and task difficulty. Factor analysis suggests that each of these related constructs are clearly distinguishable from each other. To measure child achievement value of sport and parent achievement value of sport, the Task Value (TV) subscale was used. Task value was found to have three distinct subscales: interest value, attainment value, and utility value. The Interest Value subscale contains 2 items. The Attainment Value subscale contains 3 items, and the Utility Value subscale also contains 2 items. The Interest Value subscale measures the degree to which

the individual enjoys engaging in the specified task (e.g. “How much do you like playing sports?”; 1= a little, 7= a lot). The Attainment Value subscale measures the extent to which the individual perceives the specified task as important (e.g. “Compared to most of your other activities, how important is it for you to be good at sports?”; 1 = not at all important, 7= very important). The Utility Value subscale measures the degree to which the individual has utility for the specified task (e.g. “In general, how useful is what you learn in sports? ”; 1= not at all useful, 7= very useful). Responses will be made on a 7-point Likert-type scale and were only anchored at the end points. Ratings for all the items in each subscale are summed to create a total score and the total score represents the task value. Higher scores indicate higher levels of value of sport participation.

Reliability of the Task Value scale was determined on three separate studies. In the first year of their study with 707 adolescents in Grades 5 through 12, Eccles and Wigfield (1995) developed models that were used in the creation of the Self- and Task-Perception Questionnaire. In the second year, a follow-up study, data from 545 adolescents in Grades 5 through 11 were used to test the models. Data from both years of the study demonstrated sufficient reliability for all three subscales. The Cronbach’s alpha for the subscales are as follows: .76 (Intrinsic), .70 (Importance), and .72 (Utility).

In a study by Cox and Whaley (2004), the researchers created a modified version of the Self-and Task-Perception Questionnaire to be used in the basketball domain. Using only the task value subscale and the three subscales within the task value subscale, Cox and Whaley (2004) measured subjective task value of basketball with 189 high school varsity basketball players. Cox and Whaley added additional items to the original Task Value scale to increase variability within the task value subscales by writing items based

on the definitions of task value defined by Eccles et. al (1983). Consistent with the original scale, responses to items were reflected on a Likert scale ranging from 1-7, with anchors only at the end points. Additionally, scores for each of the subscales were computed by calculating an average score. Higher scores on each subscale suggested a greater value associated with basketball. Alpha coefficients for the subscales suggested acceptable reliability. The reliability coefficients for the subscales are as follows: .76 (Interest), .83 (Attainment), and .82 (Utility).

In the Childhood and Beyond Study conducted by Eccles and her colleagues, 364 elementary students (Grades 2 through 5) in Wave 3 of the longitudinal project took the Task Value scale modified for the sport participation domain. Cronbach's alpha for the scale is within the acceptable range of reliability. The reliability of the scale was found to be .81 (Fredericks & Eccles, 2005). Fredericks and Eccles also examined the data of Wave 4 of the project. In Wave 4, there were approximately 364 children in Grades 3 through 6. Similar to reliability analysis with Wave 3 participants, reliability was found to be in the acceptable range with Wave 4 participants. Cronbach's alpha for the scale was .92.

Overall, the subscales and total scale of Task Value have demonstrated strong reliability when applied to a large range of participant age. Additionally, reliability was found to be sufficient when applied to the domain of sport. For the purpose of this study, the principle investigator will use the version of the Task Value presented in the study of sport participation conducted by Fredericks and Eccles (2005). Please see Appendix C for a copy of the Task Value scale.

Outcome Variable

Sport Participation

Sport participation was the outcome variable in this study. The outcome variable was assessed and calculated similarly to how Slutzky and Simpkins (2009) measured sport participation in their study of sport participation and self esteem in children. Previous researchers have used a list of 22 sports divided into two types: team (e.g. basketball, tennis doubles) or individual (e.g. swimming). For the purposes of this study, the list of sports was revised to be more applicable for adults (i.e. remove gymnastics as a sport for adults) and also allow participants to "write-in" sports not covered in the list. Participants were required to report the number of hours per week that they engage in each activity (1= less than 1 hour a week, 7= more than 20 hours per week). Additionally, participants also reported the number of weeks per year they engage in the each activity (1= 1-6 weeks a year, 6= 41-52 weeks per year). Finally, participants were also encouraged to report the number of hours per week and number of weeks per year that they engaged in the activity during their peak participation year. Participants received an indicator of participation by taking the following mathematical steps: Multiply the median number of hours by the median number of weeks for each activity; Sum these values across all sports; And, divide this summed value by 52. The indicator of participation represents the average number of hours per week per year that the individual participated in sport activities. Please see Appendix D for a copy of the sport participation questionnaire.

Data Analysis

Data analysis included several statistical procedures. The means and standard deviations were calculated for all continuous variables. Additionally, frequencies were

collected for all variables. The hypotheses set forth by this study were examined using regression analyses.

Simple regression analysis was used to test hypotheses 1 and 3. Specifically, in both hypotheses, the outcome variable will be child sport participation. To test hypothesis #1, parent acculturation will be the predictor variable. In hypothesis #3, parent achievement value of sport will be the predictor variable.

Before using hierarchical multiple regression to test hypotheses 2,4, and 5, the principle investigator checked to see if all assumptions of multiple regression have been satisfied. Most statistical tests rely upon certain assumptions to be satisfied for its proper use. When these assumptions are not met, the results may not be reliable, may result in Type I or Type II error, or may over- or underestimate the significance or effect size (Osborne & Waters, 2002). Additionally, when assumptions are violated, concern may raise as to whether the estimates of the regression coefficients and their standard errors are correct. Furthermore, assumptions that have been violated can pinpoint problems in the specification of the regression model and provide valuable information that can lead to a revision of the original model.

After the assumptions of regression have been satisfied, mediation analysis was used to answer research questions 2,4, and 5,

CHAPTER IV

RESULTS

This chapter presents the results of the data analysis conducted in this study. First, the hypotheses and expected findings for this study will be revisited. Second, demographic information of the participants, the reliability of each instrument, and the descriptive statistics of each variable will be discussed. Finally, results and interpretations using simple regression analysis and mediation regression analysis based on the research hypotheses will be presented.

Data Collection Methods

Recruitment occurred in-person and via electronic internet announcements in three main sectors: South Asian American community organizations, South Asian American professional organizations, and South Asian American religious organizations. The Student Principal Investigator contacted 5 religious organizations, 2 community organizations, and 3 professional organizations in the Midwest. Five of the seven organizations responded back and agreed to send a recruitment email to their members inviting them to participate in the study. One of the organizations invited the Student Principal Investigator to recruit participants in-person during a widely attended event. The Student Principal Investigator also enlisted the help of family and friends to help distribute the recruitment email to any South Asian American parents and children they knew.

The recruitment email provided a brief description of the study and a direct link to the survey. Participants interested in being part of the study were instructed to click on the survey link and were taken to an online survey hosted by Qualtrics. The first page of

the survey provided a brief description of the study and was followed by a consent form that outlined the study's purpose, length of time to complete the study, significance of the study, and potential risks and benefits, and contact information of the Principal Investigator for questions and concerns. At the bottom of the consent form, individuals were instructed to click on the "Next" button if they consented to participating in the study.

This study complied with all data collection procedures approved by the UWM Institutional Review Board. UWM Institutional Review Board has evaluated this study for impact on participants and has identified that participation in this study will likely not cause harm or very little harm to participations. Additionally, collected data was stored in databases on password protected computers. To date, no participant has indicated that they have experienced distress related to their participation in this study.

Not Valid and Missing Data

Upon the completion of data collection, several steps were taken to address invalid and missing data within the dataset. Demographic information and responses within each study instrument were scanned to remove any invalid entries before analysis. This data screening and cleaning procedure revealed that although there were 391 participants in the study, there were 103 participants who did not complete the demographic information or did not complete two thirds of the required questionnaires. These participants were excluded from the data analysis, thereby yielding 288 participants in the dataset. In addition to screening the data for large portions that were not completed by participants, data was also visually rechecked to identify potential missing variables. Additionally, participants who had missing dyad partner (i.e., their

parent or child did not take the survey) were also excluded from the data analysis. Therefore, an additional 24 participants were removed from the dataset. A total of 132 dyads (264 participants) participated in the study. As recommended by George and Mallery (2009), missing values were replaced with the mean value of the variable. However, missing values in demographics were not replaced.

Demographic Information of Participants

Participants were 264 individuals identifying as South Asian or South Asian American living currently in the United States. Data for this research study were collected from different organizations in the Midwest region of the United States. Data was collected from a web-based survey and paper/pencil measures. Individuals were not eligible to participate in this study if they did not identify as South Asian or South Asian American, were under the age of 18, and were not English speaking.

Parent Participants

Table 4.1 presents the demographic information and the descriptive statistics of the parent participants in the study. Parent participants in the study ranged in age from 40 to 68, with the average age of 53.77 years old (N= 132; SD= 7.247). A little over half of the parent participants identified as male (N=70; 53%) and a little less than half the parent participants identified as female (N=62; 47%). With regards to ethnicity, the majority of parent participants identified as Indian (N= 129; 97.7%), with the second largest ethnicity represented within the parent sample identifying as Nepalese (N=2; 0.8%). The majority of parents in the study reported that highest level of education completed by their mother was high school (N=66; 50%) and the highest level of education completed by their father was high school (N=51; 38.6%). In comparison, the

majority of parent participants indicated that they attained a professional degree (N=39; 29.5%). Additionally, the majority of parent participants indicated that their income level was within the $60,000-$79,000 range (N= 20; 15.2%) and reported that their family income was within the $160,000-$179,000 range (N=25; 189%). Parent participants in the study ranged in length of time they have resided in the U.S. from 0 to 44 years, with the average number of years in the U.S. of 24.44 (SD=10.175). With respect to generational status, all of the parent participants identified as 1st generation (N=132; 100%).

Table 4.1
Demographic Information and Descriptive Statistics of Parent Participants (N=132)

		Frequency	%	Mean	SD
Age				53.77	7.247
Gender					
	Female	60	47		
	Male	72	53		
Ethnic Background					
	India	129	97.7		
	Pakistan	0	0.00		
	Bangladesh	1	0.4		
	Nepal	2	0.8		
	Sri Lanka	1	0.4		
	Maldives	0	0.00		
Mother's Education					

	High School	66	50.0
	Associate's Degree	5	1.9
	Bachelor's Degree	39	14.8
	Professional Degree	3	1.1
	Master's Degree	0	0.00
	Doctoral Degree	0	0.00
	Other	9	6.8
Father's Education			
	High School	51	38.6
	Associate's Degree	7	5.3
	Bachelor's Degree	47	35.6
	Professional Degree	8	6.1
	Master's Degree	3	2.3
	Doctoral Degree	2	1.5
	Other:	9	6.8
Your Education			
	High School	16	12.1
	Associate's Degree	9	6.8
	Bachelor's Degree	27	20.5
	Professional Degree	39	29.5
	Master's Degree	27	20.5
	Doctoral Degree	8	6.1
	Other:	5	3.8

Your Income			
	Less than 19,999	14	10.6
	20,000-39,999	13	9.8
	40,000-59,999	15	11.4
	60,000-79,999	20	15.2
	80,000-99,999	15	11.4
	100,000-119,999	6	4.5
	120,000-139,999	10	4.5
	140,000-159,999	11	8.3
	160,000-179,999	10	7.6
	180,000-199,999	3	2.3
	Greater than 200,000	13	9.8
Family Income			
	Less than 19,999	1	0.8
	20,000-39,999	3	2.3
	40,000-59,999	2	1.5
	60,000-79,999	3	2.3
	80,000-99,999	5	3.8
	100,000-119,999	17	12.9
	120,000-139,999	21	15.9
	140,000-159,999	21	15.9
	160,000-179,999	25	18.9
	180,000-199,999	12	9.1

	Greater than 200,000	20	15.2		
Generation Status					
	1st Generation	132	100		
	2nd Generation	0	0		
	3rd Generation	0	0		
	4th Generation	0	0		
	5th Generation	0	0		
# of years in U.S.				24.44	10.175

Child Participants

Table 4.2 presents the demographic information and the descriptive statistics of the child participants in the study. Child participants in the study ranged in age from 18 to 42, with the average age of 27.83 years old (N= 132; SD= 5.99). Slightly more than half of the child participants identified as female (N=75; 56.87%) and slightly less than half the parent participants identified as male (N=57; 43.2%). Within the sample of child participants, similar to the parent participants, the majority of the participants identified as Indian as Indian (N= 128; 97%), with the second largest ethnicity represented within the child sample as Nepalese (N=2; 1.5%). The majority of child participants in the study reported that the highest level of education completed by their mother was a professional degree (N=38; 28.8%) and the highest level of education completed by their father was also a professional degree (N=36; 27.3%). In comparison, the majority of child participants indicated that a bachelor's degree was their highest level of education completed (N=41; 31.1%). Additionally, the majority of child participants indicated that

their income level was less than $19,999 (N= 37; 28%) and reported that their family income was greater than $200,000 (N=28; 21.2%). Child participants in the study ranged in length of time they have resided in the U.S. from 0 to 38 years, with the average number of years in the U.S. of 22.92 (SD=9.04). With respect to generational status, the majority of the child participants identified as 2nd generation (N=90; 68.2%).

Table 4.2
Demographic Information and Descriptive Statistics of Child Participants (N=132)

		Frequency	%	Mean	SD
Age				27.83	5.99
Gender					
	Female	75	56.8		
	Male	57	43.2		
Ethnic Background					
	India	128	97		
	Pakistan	1	0.8		
	Bangladesh	0	0		
	Nepal	2	1.5		
	Sri Lanka	1	0.8		
	Maldives	0	0		
Mother's Education					
	High School	21	15.9		
	Associate's Degree	8	6.1		
	Bachelor's Degree	23	17.4		

	Professional Degree	38	28.8
	Master's Degree	24	18.2
	Doctoral Degree	12	9.1
	Other	3	2.3
Father's Education			
	High School	14	10.6
	Associate's Degree	8	6.1
	Bachelor's Degree	26	19.7
	Professional Degree	36	27.3
	Master's Degree	27	20.5
	Doctoral Degree	16	12.1
	Other:	4	3.0
Your Education			
	High School	31	23.5
	Associate's Degree	2	1.5
	Bachelor's Degree	41	31.1
	Professional Degree	27	20.5
	Master's Degree	22	16.7
	Doctoral Degree	2	1.5
	Other:	7	5.3
Your Income			
	Less than 19,999	37	28
	20,000-39,999	2	1.5

	40,000-59,999	14	10.6
	60,000-79,999	12	9.1
	80,000-99,999	8	6.1
	100,000-119,999	9	6.8
	120,000-139,999	14	10.6
	140,000-159,999	10	7.6
	160,000-179,999	10	7.6
	180,000-199,999	1	0.8
	Greater than 200,000	13	9.8
Family Income			
	Less than 19,999	0	0
	20,000-39,999	0	0
	40,000-59,999	3	2.3
	60,000-79,999	2	1.5
	80,000-99,999	3	2.3
	100,000-119,999	15	11.4
	120,000-139,999	24	18.2
	140,000-159,999	31	23.5
	160,000-179,999	21	15.9
	180,000-199,999	4	3.0
	Greater than 200,000	28	21.2
Generation Status			
	1st Generation	42	31.8

	2nd Generation	90	68.2	
	3rd Generation	0	0	
	4th Generation	0	0	
	5th Generation	0	0	
# of years in U.S.			22.92	9.04

Reliability of Study Instruments

Six scales were tested for reliability. Cronbach's alpha coefficient provides a measure of internal consistency reliability. According to Tabachnick and Fidell (2007), an internal consistency measure indicates the extent to which items in a subscale or instrument fit together. Accordingly, a Cronbach's alpha coefficient indicates a perfect correlation whereas a Cronbach's alpha coefficient of 0 represents no correlation (Heppner, Wampold, & Kivlighan, 2007). In most social science research studies, a reliability coefficient of .70 or higher is considered acceptable (Heppner et al, 2007). In the following sections, a brief description of each scale, scale range, interpretation, and reliability is presented. Additionally, Table 4.3 displays the range, interpretation, and reliability of each scale.

Asian American Multidimensional Acculturation Scale (AAMAS)

Acculturation was measured using the Asian American Multidimensional Acculturation Scale (AAMAS). The AAMAS has three subscales, with fifteen items in each subscale: AAMAS- Culture of Origin (AAMAS-CO), AAMAS- Asian American (AAMAS-AA), and AAMAS- European American (AAMAS-EA). Each item on the AAMAS uses a 6-point Likert scale, ranging from *not very much* to *very much*. Within

each subscale, ten items measure cultural behavior, three items measure cultural identity, and two items measure cultural knowledge. Scoring the AAMAS is conducted by averaging the scores (ranging from 1 to 6) for each subscale across the fifteen items. Each subscale is independently scored.

Asian American Multidimensional Acculturation Scale- Culture of Origin (AAMAS-COO)

All of the questions on the AAMAS-COO subscale had highly acceptable reliability. In this study, the internal consistency reliability (Cronbach's alpha) for the Asian American Multidimensional Scale-Culture of Origin Subscale was .958.

Asian American Multidimensional Acculturation Scale- Asian American (AAMAS-AA)

All of the questions on the AAMAS-AA subscale had highly acceptable reliability. In this study, the internal consistency reliability (Cronbach's alpha) for the Asian American Multidimensional Scale-Asian American Subscale was .953.

Asian American Multidimensional Acculturation Scale- European American (AAMAS-EA)

All of the questions on the AAMAS-EA subscale had highly acceptable reliability. In this study, the internal consistency reliability (Cronbach's alpha) for the Asian American Multidimensional Scale-European American Subscale was .923.

Task Value Scale

Achievement value of sport was measured using the Task Value (TV) subscale. Task value has three distinct subscales: interest value, attainment value, and utility value. The Interest Value subscale contains 2 items. The Attainment Value subscale contains 3 items, and the Utility Value subscale also contains 2 items. Responses were recorded on a 7-point Likert-type scale and were only anchored at the end points. Ratings for all the

items in each subscale are summed to create a total score and the total score represents the task value. Higher scores indicate higher levels of value of sport participation. All of the questions on the Task Value scale had highly acceptable reliability. In this study, the internal consistency reliability (Cronbach's alpha) for the Task Value scale was .975.

Task Value Scale: Interest Value Subscale

All of the questions on the Task Value-Interest Value subscale had highly acceptable reliability. In this study, the internal consistency reliability (Cronbach's alpha) for the Task Value-Interest Value Subscale was .968.

Task Value Scale: Attainment Value Subscale

All of the questions on the Task Value-Attainment Value subscale had highly acceptable reliability. In this study, the internal consistency reliability (Cronbach's alpha) for the Task Value-Attainment Value subscale was .958.

Task Value Scale: Utility Value Subscale

All of the questions on the Task Value-Utility Value subscale had highly acceptable reliability. In this study, the internal consistency reliability (Cronbach's alpha) for the Task Value-Utility Value subscale was .912.

Sport Participation

Sport participation was measured by creating an indicator of participation. Participants reported the number of hours per week that they engaged in each activity (1= less than 1 hour a week, 7= more than 20 hours per week). Additionally, participants also reported the number of weeks per year they engaged in the each activity (1= 1-6 weeks a year, 6= 41-52 weeks per year). The indicator of participation was calculated by taking the following mathematical steps: Multiply the median number of hours by the median

number of weeks for each activity; Sum these values across all sports; And, divide this summed value by 52. The indicator of participation represents the average number of hours per week per year that the individual participated in sport activities.

Table 4.3
Description of Scales, Scale Ranges, and Interpretation

Variable	Scale	Scale Ranges	Interpretation
Parent Acculturation (X_1)	Asian American Multidimensional Acculturation Scale- Culture of Origin (AAMAS-COO)	1 (not very much) to 6 (very much);	Scoring the AAMAS-COO is computed by averaging the scores (ranging from 1 to 6) across the fifteen items. Higher averaged score= Higher level of acculturation to the culture of origin.
	Asian American Multidimensional Acculturation Scale- Asian American (AAMAS-AA)	1 (not very much) to 6 (very much);	Scoring the AAMAS-AA is computed by averaging the scores (ranging from 1 to 6) across the fifteen items. Higher averaged score= Higher level of acculturation to the pan-ethnic Asian American culture
	Asian American Multidimensional Acculturation Scale- European American (AAMAS-EA)	1 (not very much) to 6 (very much);	Scoring the AAMAS-EA is computed by averaging the scores (ranging from 1 to 6) across the fifteen items. Higher averaged score= Higher level of acculturation to the host culture

Parent Achievement Value of Sport (X_2);	Task Value (TV)	1-7; Responses were made on a 7-point Likert-type scale and were only anchored at the end points.	Ratings for all the items in each subscale are summed to create a total score and the total score represents the task value. Higher scores indicate higher levels of value of sport participation.
Child Achievement Value of Sport (X_3)	Task Value-Interest (TV-Interest)	1 (a little) to 7 (a lot); 1 (not as much) to 7 (a lot);	Higher scores indicate higher levels of interest value of sport participation.
	Task Value-Attainment (TV-Attainment)	1 (not at all important) to 7 (very important); 1 (very boring) to 7 (very interesting);	Higher scores indicate higher levels of attainment value of sport participation.
	Task Value-Utility (TV-Utility)	1 (not at all useful) to 7 (very useful); 1 (not at all useful) to 7 (a lot more useful)	Higher scores indicate higher levels of utility value of sport participation.
Child Sport Participation (Y)	Sport Participation Indicator	1 (less than 1 hour/week) to 7 (more than 20 hours/week); 1 (Between 1-6 weeks/year) to 6 (Between 41-52 weeks/year)	Higher indicator of participation = higher average of number of hours per week per year that the individual participated in sports

Data Analysis Procedures

Data were collected via a web-based online survey and paper/pencil measures. After the study collection period was closed, data collected from the web-based online survey was downloaded in an SPSS formatted data file for analysis. Additionally, data collected from paper/pencil based measures was entered into the same SPSS formatted data file. The Asian American Multidimensional Acculturation Scale (AAMAS) had three reverse coded items, one item in each of the subscales. No additional prepatory data coding was necessary. Multiple regression analyses were conducted to evaluate the study's five hypotheses. Table 4.4 provides a summary descrption of each instrument's minimum scores, maximum scores, mean, and standard deviation.

Table 4.4
Summary Description of Each Instruments Minimum Scores, Maximum Scores, Mean, and SD

Variable	Instrument	Minimum Score	Maximum Score	Mean	Standard Deviation
Parent Acculturation (X_1)	Asian American Multidimensional Acculturation Scale-Culture of Origin (AAMAS-COO)	2.53	6.00	5.6333	0.48
	Asian American Multidimensional Acculturation Scale-Asian American (AAMAS-AA)	2.07	5.93	5.22	0.80
	Asian American Multidimensional Acculturation Scale-European American (AAMAS-EA)	1.00	5.67	0.67	0.45
Parent Achievement Value of Sport (X_2)	Task Value (TV)	7.00	49.00	13.76	9.30
Child Achievement Value of Sport (X_3)	Task Value (TV)	7.00	49.00	26.46	11.94
Child Sport Participation (Y)	Sport Participation Indicator	0.00	85.50	3.60	10.44

Preliminary Analyses: Assumption Checking

Most statistical tests rely upon certain assumptions to be satisfied for its proper use. When these assumptions are not met, the results may not be reliable, may result in Type I or Type II error, or may over- or underestimate the significance or effect size (Osborne & Waters, 2002). Additionally, when assumptions are violated, concern may raise as to whether the estimates of the regression coefficients and their standard errors are correct. Furthermore, assumptions that have been violated can pinpoint problems in the specification of the regression model and provide valuable information that can lead to a revision of the original model. In the section below, applicable assumptions are checked to identify if modifications to the proposed model are necessary.

Assumption 1: Correct Specification of the Form of the Relationship between IVs and DV

This assumption requires checking if there is correct specification of the form of the relationship between Parent Acculturation, Child Achievement Value of Sport, and Parent Achievement Value of Sport (the predictor variables) and Child Sport Participation (dependent variable).

This is an important assumption to check because the estimate of the regression coefficients and standard errors may be biased if this assumption is not met. Furthermore, a violation of this assumption could result in incorrect significance tests. This assumption has been checked by examining if there is a linear or curvilinear relationship between all the means of the distribution. Specifically, scatterplots of the residual versus the predictor variables have been created. We created scatterplots by plotting the residuals on the Y axis separately against each predictor variable (Parent Acculturation, Child Achievement Value of Sport, Parent Achievement Value of Sport). The rationale for using residuals in

the scatterplot is because they will magnify any deviation from linearity so that nonlinear relationships will become even more evident.

Figure 4.1
Scatterplot of Child Achievement Value of Sport vs. Child Sport Participation Residuals

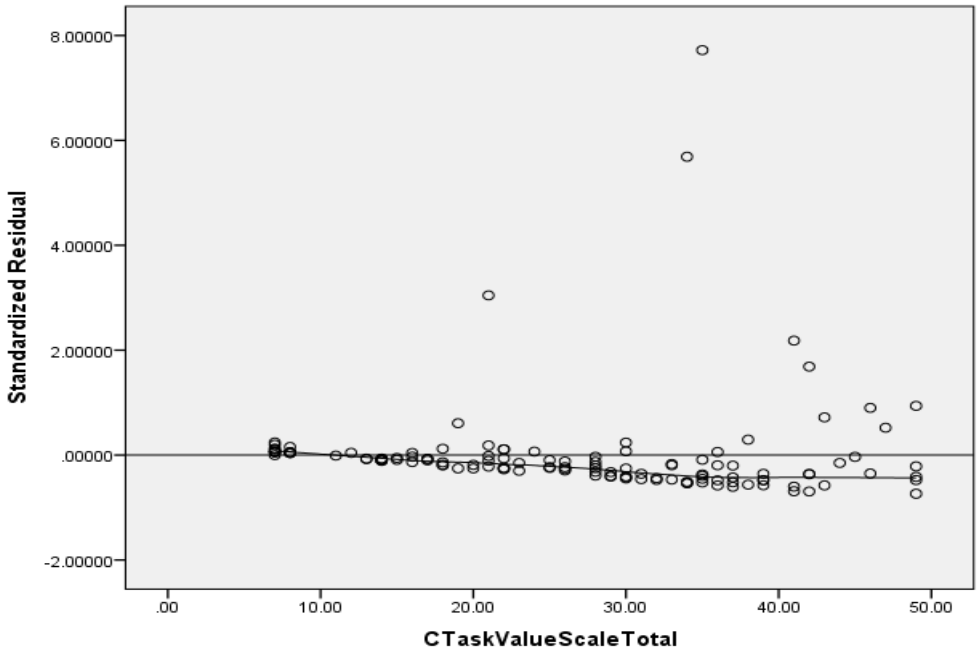


Figure 4.2
Scatterplot of Parent Achievement Value of Sport vs. Child Sport Participation Residuals

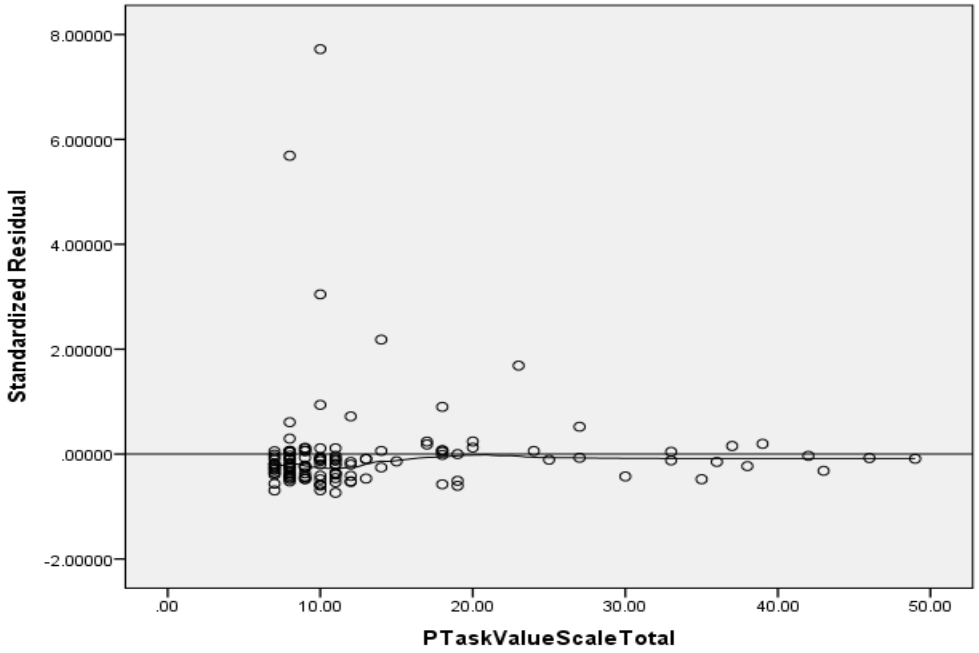


Figure 4.3
Scatterplot of Parent Acculturation-Asian American vs. Child Sport Participation Residuals

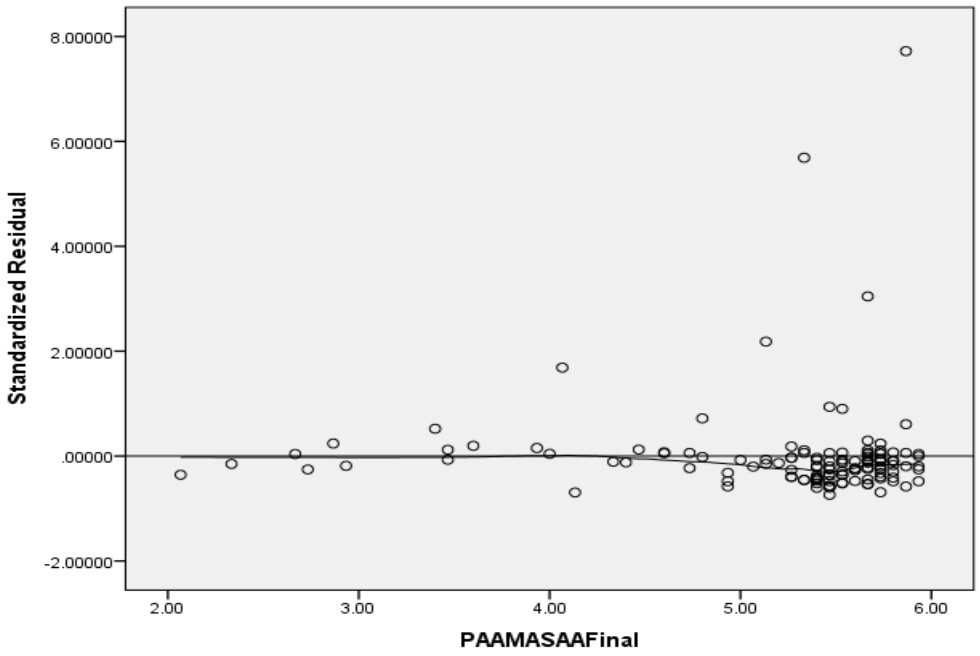


Figure 4.4
Scatterplot of Parent Acculturation-Culture of Origin vs. Child Sport Participation Residuals

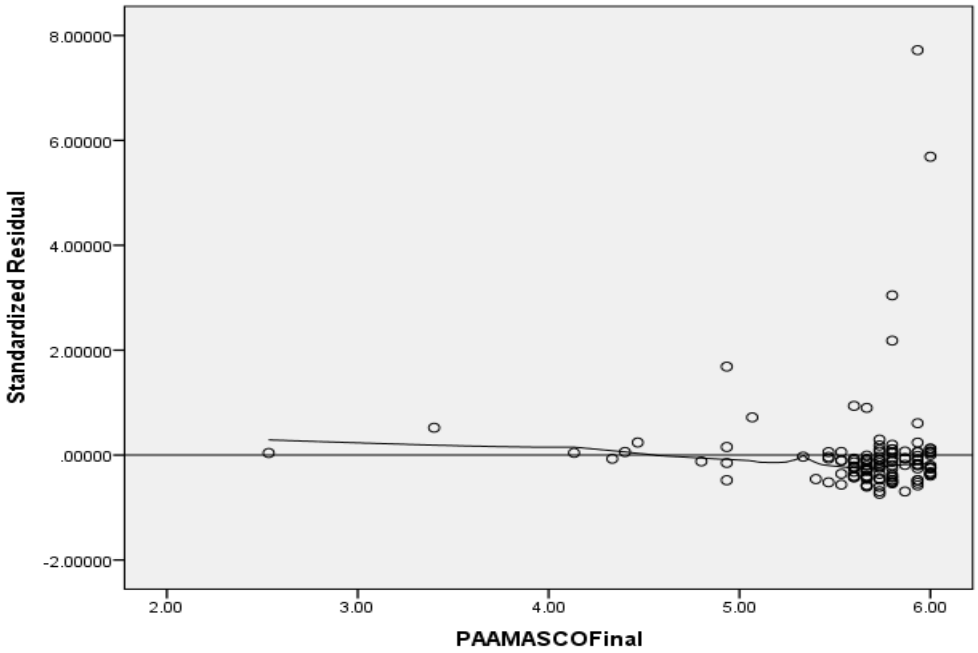
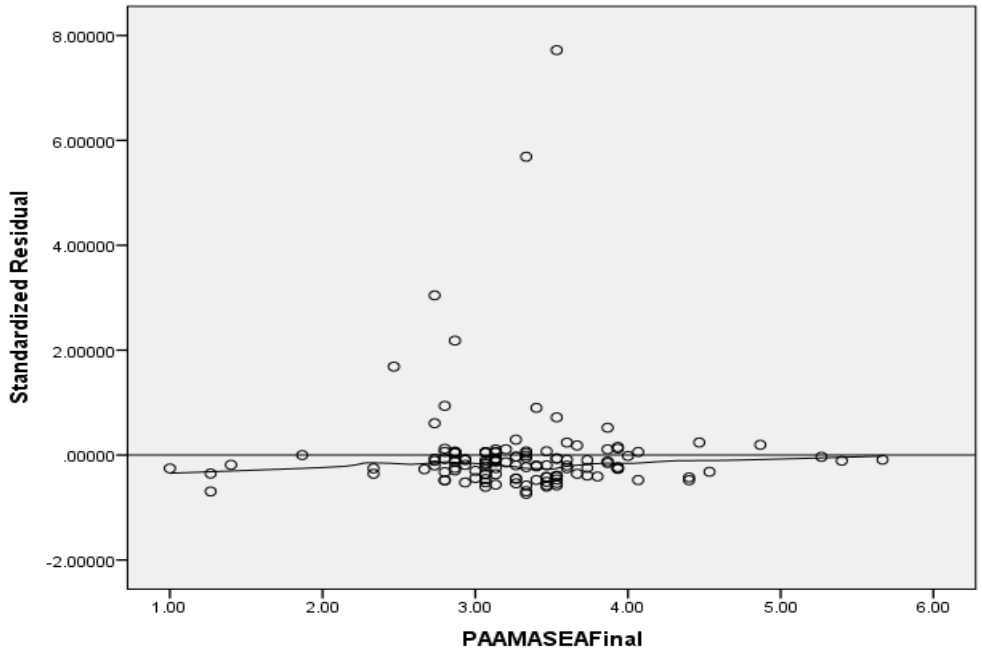


Figure 4.5
Scatterplot of Parent Acculturation-European American vs. Child Sport Participation Residuals



Assumption 2: Predictor Variables are Uncorrelated with Errors

This assumption requires ensuring that the predictor variables are uncorrelated with error. Endogenity occurs when a predictor variable is correlated with error. This is problematic to regression models because it may be caused by an important missing variable. To check this assumption, we ran a correlational analysis between the residual and each predictor variable to determine whether each is correlated with the residual. As can be seen from Table 4.5, the predictor variables are uncorrelated with the residual. Therefore, this assumption has not been violated.

Table 4.5
Correlations Between Predictor Variables and Residual

Instrument	Unstandardized Child Sport Participation Residuals	
Child Achievement	Pearson Correlation	.000
Value of Sport	Sig. (2-tailed)	1.000
Parent Achievement	Pearson Correlation	.000
Value of Sport	Sig. (2-tailed)	1.000
AAMAS-AA	Pearson Correlation	.000
	Sig. (2-tailed)	1.000
AAMAS-EA	Pearson Correlation	.000
	Sig. (2-tailed)	1.000
AAMAS-COO	Pearson Correlation	.000
	Sig. (2-tailed)	1.000

Assumption 3: No measurement Error in the Predictor Variables (Reliability)

According to Cohen and colleagues (2003), each predictor variable in the regression model is assumed to be measured without error. To meet this assumption, the internal consistency reliability (Cronbach's alpha) was computed for each of the variables included in the model. In this study, the internal consistency reliability (Cronbach's alpha) for the Task Value scale was .975, for the Asian American Multidimensional Acculturation Scale- European American was .923, for the Asian American Multidimensional Acculturation Scale- Asian American was .953, and for the Asian

American Multidimensional Acculturation Scale- Culture of Origin was .958. All four scales had highly acceptance reliability and therefore, the third assumption was satisfied.

Assumption 4: Constant Variance of Residuals

For any value of X, the variance of residuals is assumed to be constant (Cohen et al., 2003). The term homoscedasticity is used to refer to constant variance, whereas heteroscedasticity means that the variance is not constant. It is important to detect whether heteroscedasticity exists because if the variance of residuals is not constant, it may potentially compromise the standard methods used for developing confidence intervals and conducting significance tests. As recommended by Cohen and colleagues (2003), one method to detect heteroscedasticity is to use scatterplots to plot the residuals in turn against each of the independent variances and the predicted Y.

Figure 4.6
Scatterplot of Standardized Predicted Value vs. Standardized Residual

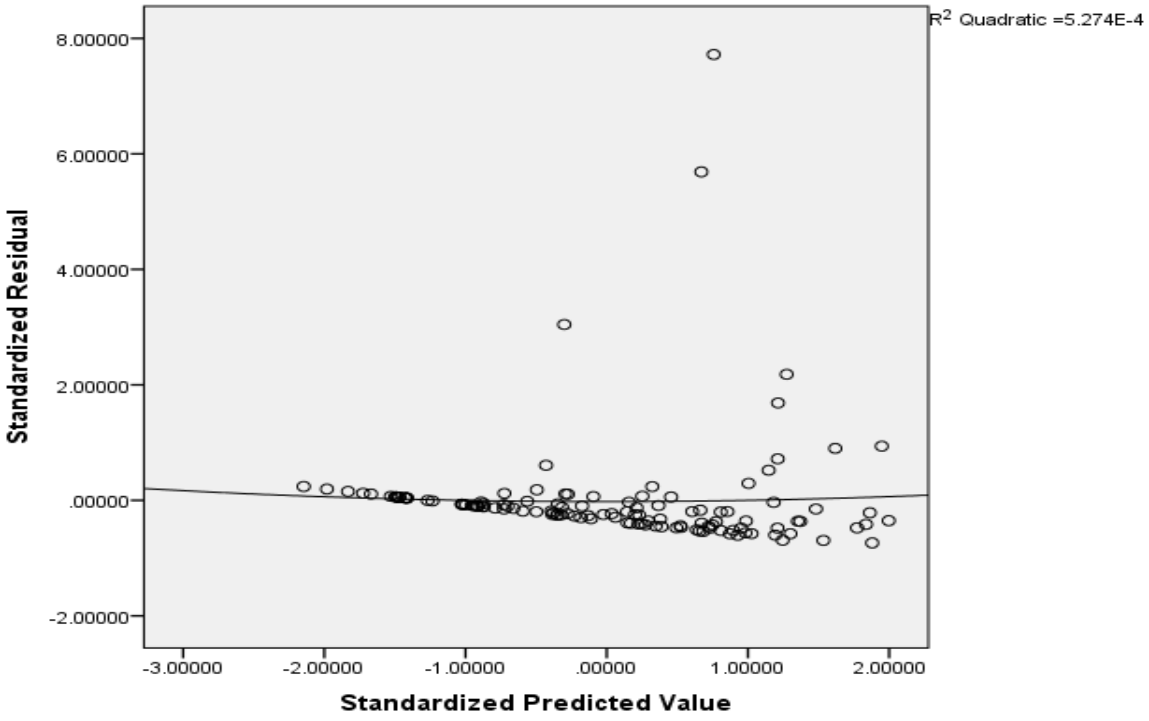


Figure 4.7
Scatterplot of Child Achievement Value of Sport vs. Standardized Residual

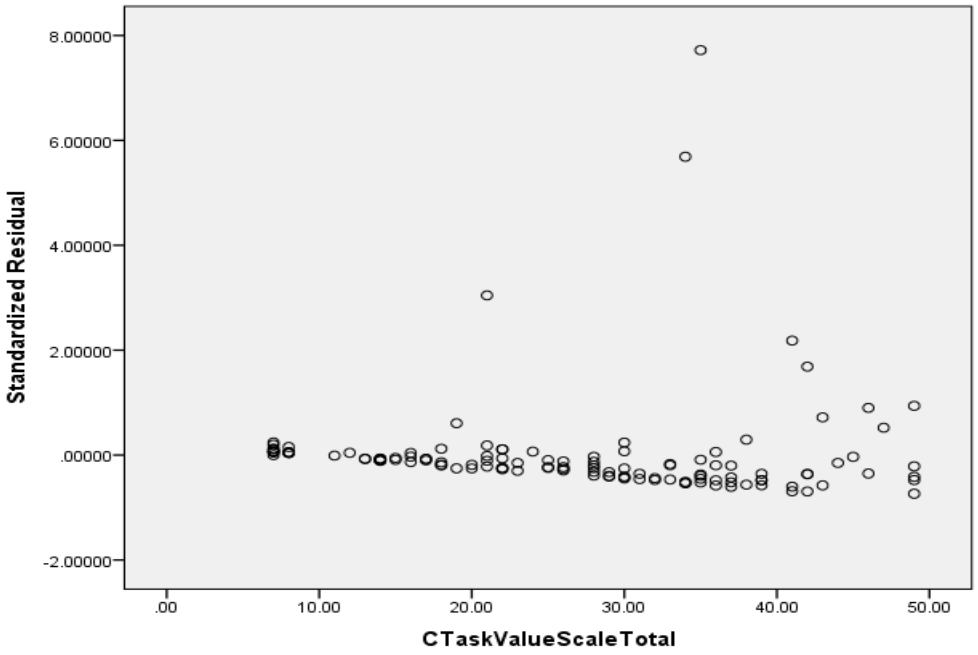


Figure 4.8
Scatterplot of Parent Achievement Value of Sport vs. Standardized Residual

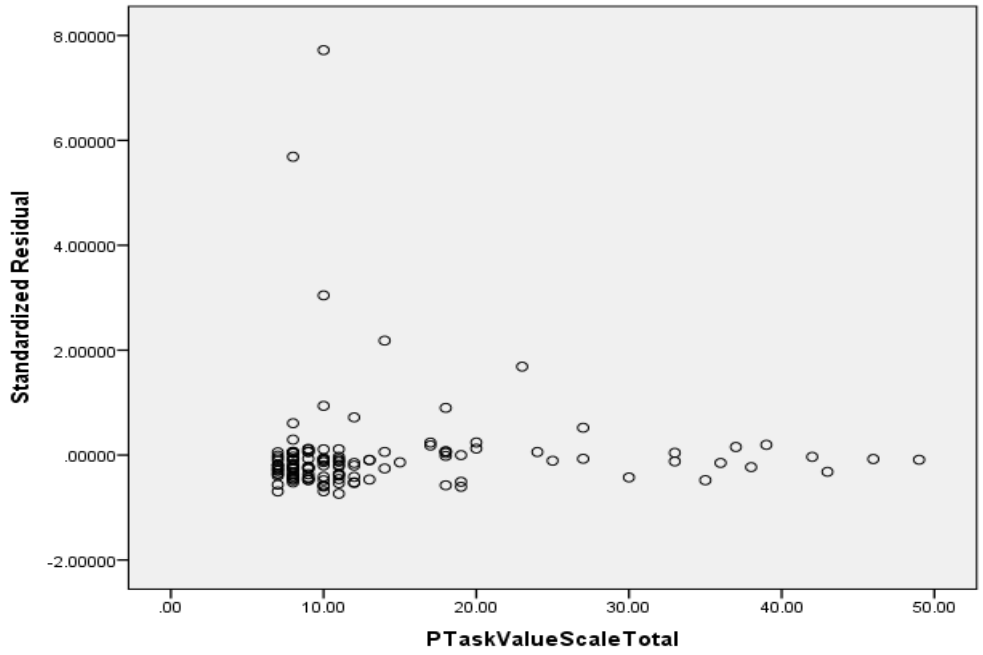


Figure 4.9
Scatterplot of AAMAS- European American vs. Standardized Residual

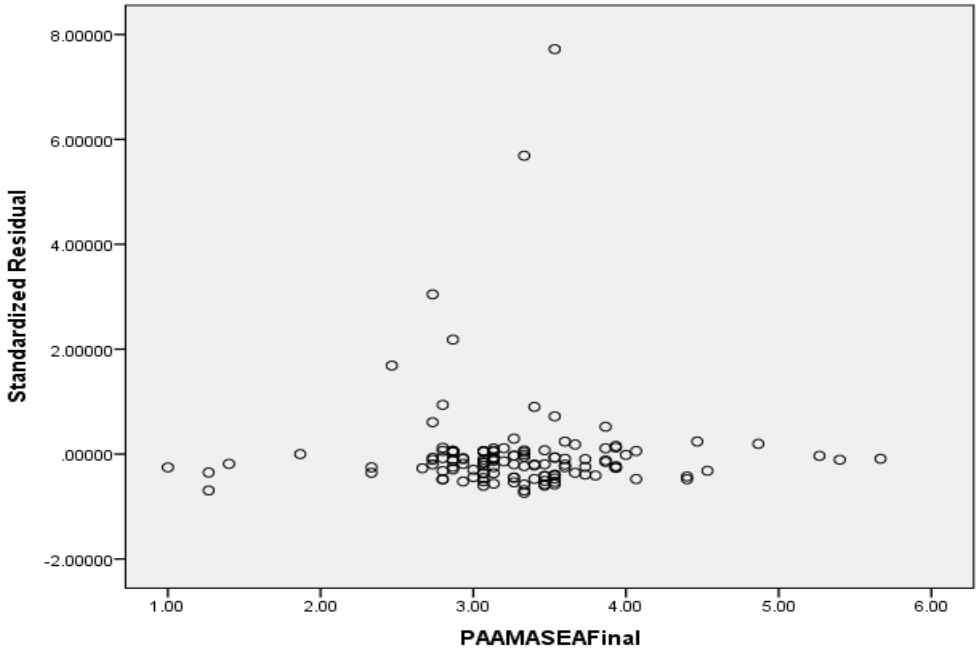


Figure 4.10
Scatterplot of AAMAS- Asian American vs. Standardized Residual

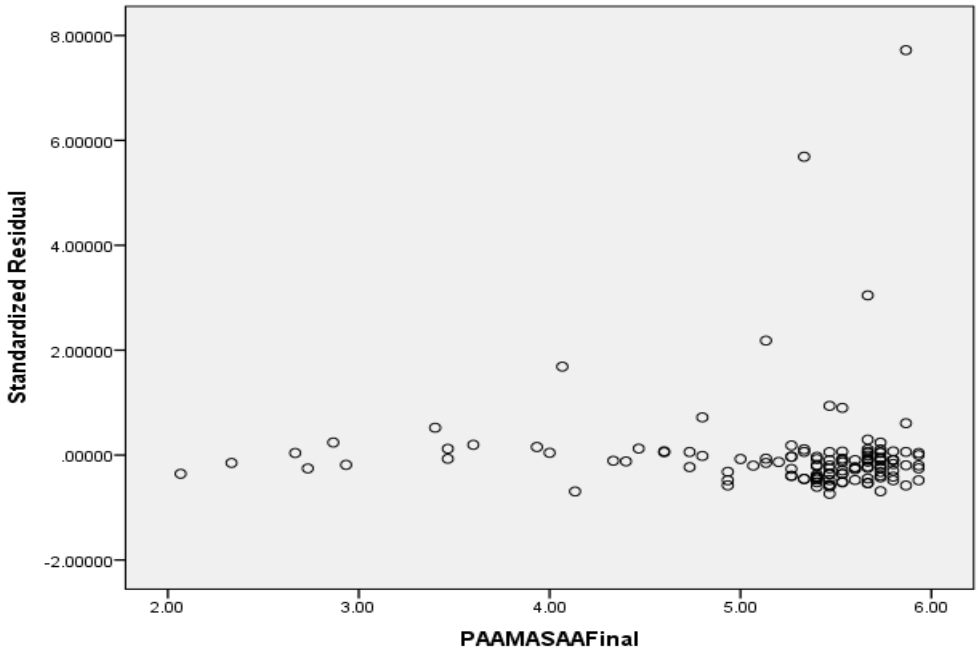
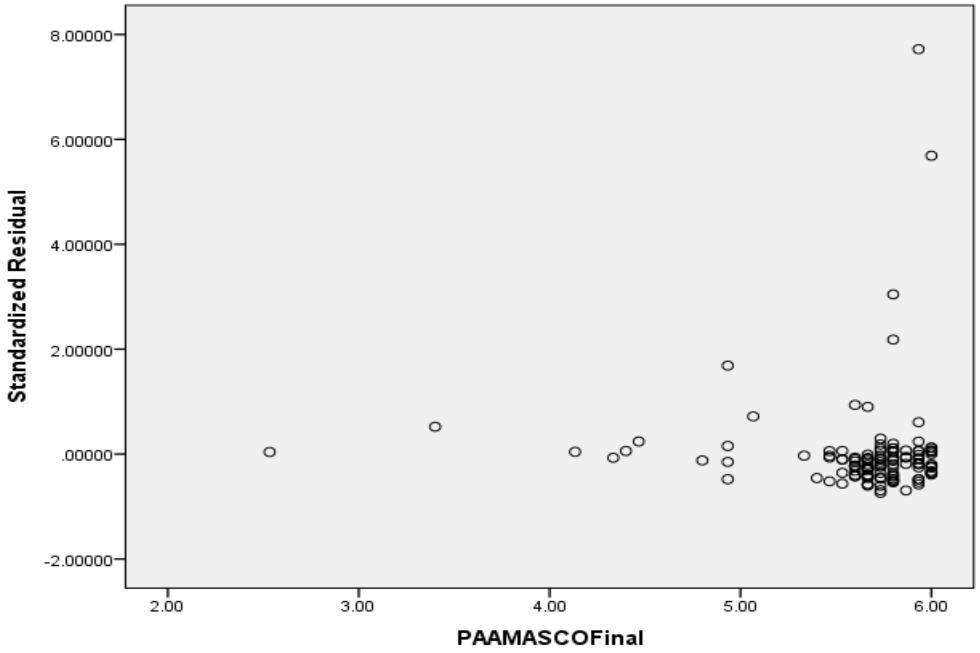


Figure 4.11
Scatterplot of AAMAS-Culture of Origin vs. Standardized Residual



The widths of the distributions in scatterplots appear to reflect parallel lines. This suggests that the distributions of the plots are constant at each interval. All scatterplots show that there is homoscedasticity, indicating that the variance of residuals appear to be constant at each interval.

Assumption 5: Independence of Residuals

Cohen and colleagues (2003) indicated that it is important to have the residuals of all of the observations be independent of each other. To examine if this assumption has been met, correlational analysis was conducted to ensure that there is no relationship among the residuals of each variable in the study. As Table 4.6 illustrates, the correlations between each variable's residuals indicate that they are not highly correlated with other variables' residuals. Therefore, the fifth assumption was not violated.

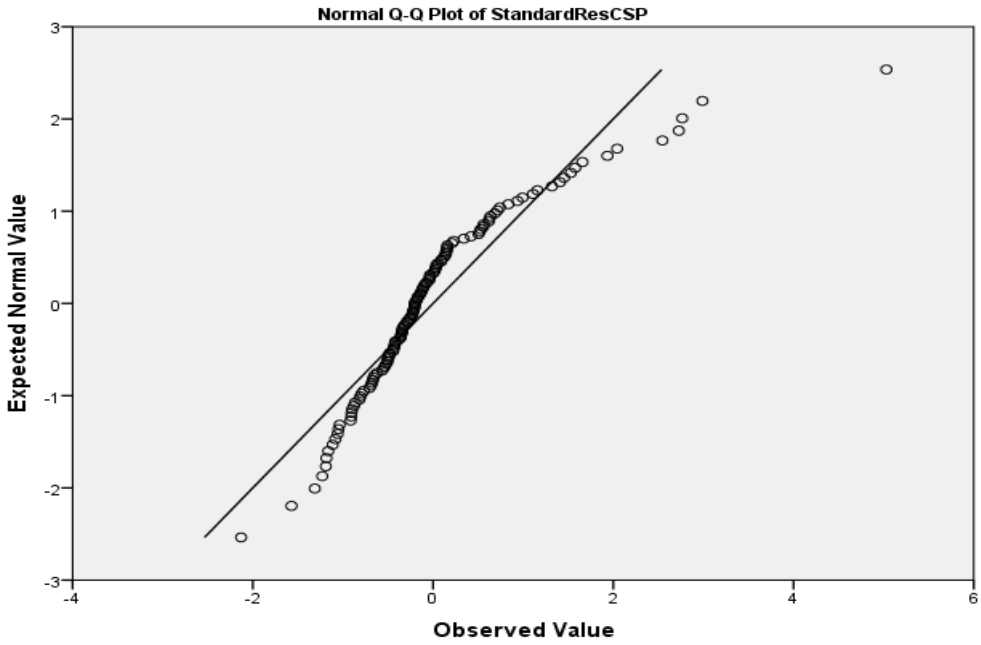
Table 4.6
Correlations Between Variables' Residuals

Variable	AAMAS-COO	AAMAS-AA	AAMAS-EA	Child Achievement Value of Sport	Parent Achievement Value of Sport	Child Sport Participation
AAMAS-COO	1	-.454**	.097	.047	.149	-.014
AAMAS-AA	-.454**	1	-.325**	-.060	.355**	-.015
AAMAS-EA	.097	-.325**	1	-.083	-.568**	.024
Child Achievement Value of Sport	.047	-.060	-.083	1	.030	-.266**
Parent Achievement Value of Sport	.149	.355**	-.568**	.030	1	.001
Child Sport Participation	-.014	-.015	.024	-.266*	.001	1

Assumption 6: Normality of Residuals

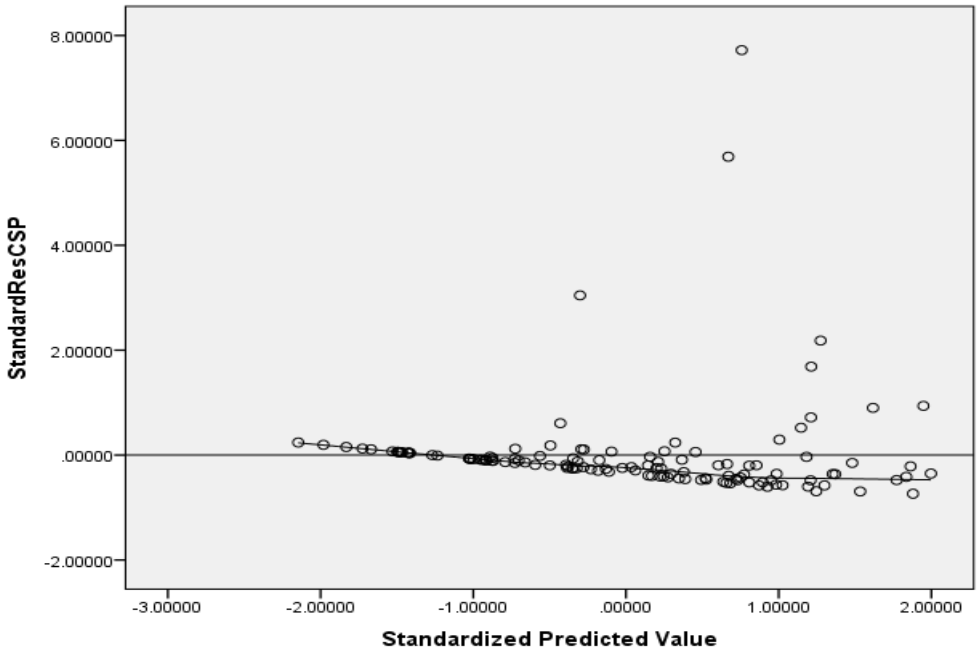
This assumption notes that for any value of the predictor variables, the residuals are assumed to have a normal distribution (Cohen et al., 2003). A violation of this assumption may potentially impact the standard errors, although it may not modify the estimates of the regression coefficient. This is an important assumption to check because it may indicate model misspecification. One manner of checking non-normality of residuals is by utilizing a Q-Q plot.

Figure 4.12
Normal Q-Q Plot with Superimposed Straight Line



Residuals plotted in Figure 4.12 indicate that although there is a slight is a slight deviation at the tail ends of the plot, the plots generally appear to approximate a straight line. This suggests that the residuals are following a normal distribution, indicating that this assumption has not been violated. An additional method that can determine if this assumption has been satisfied is to use a scatterplot to examine the relationship between the Standardized Residuals and the Standardized Predicted Values. As Figure 4.13 displays, the scatterplot of Child Sports Participation (Predicted Values) vs. Child Sports Participation Residuals shows an approximate straight line, suggesting that the residuals follow a normal distribution.

Figure 4.13
Scatterplot of Child Sport Participation Predicted Values vs. Child Sport Participation Residuals



Data Management

Frequency analysis and assumption checking required for 5 dyads to be removed from further analysis. Frequency statistics indicated that there were four dyads within the dataset that were comprised of individuals who identified their country of origin not as India. Additionally, assumption checking revealed that there were approximately 3 dyads that had residuals larger than 2.0. There was overlap between these two groups of dyads. Of the dyads with residuals larger than 2, two of the dyads had a child or parent who did not identify their country of origin as India. An additional dyad with a residual larger than 2 was also removed from data analysis, in addition to two dyads with a parent or child indicating a country of origin other than India. A total of 5 dyads were removed from further data analysis.

Research Hypotheses Testing

In the following sections, research questions and hypotheses set forth by this study are examined. Testing these five hypotheses required using simple regression analyses and mediation analyses. Hypothesis one and hypothesis three required utilizing simple regression analyses. The degree of variance accounted for by Parent Acculturation in Child Sport Participation (Hypothesis #1) and the degree of variance accounted for by Parent Achievement Value of Sport in Child Sport Participation were examined. Hypothesis two and four required testing for mediation effects. Mediation effects were examined by looking at the direct influences of each predictor variable to the mediating variable and the direct influence to the outcome variable. Hypothesis two and four each proposed a separate mediation model and required two conditions to be satisfied: 1) evidence of a significant direct effect from the mediator to the outcome variable, and 2)

results that suggest a direct effect from the predictor variable to the mediating variable. Hypothesis two proposed that Parent Achievement Value of Sport mediated the relationship between Parent Acculturation and Child Sport Participation. Hypothesis four proposed that Child Achievement Value of Sport mediated the relationship between Parent Achievement Value of Sport and Child Sport Participation. In hypothesis five, both Parent Achievement Value of Sport and Child Achievement Value of Sport were examined to determine if they served as mediators between Parent Acculturation and Child Sport Participation.

Hypothesis 1: Parent acculturation will significantly predict child sport participation in South Asian Americans.

This hypothesis is illustrated by Model 4.1, as displayed below in Figure 4.14. To test this hypothesis, a simple regression analysis was performed. All three of the subscales of the Asian American Multidimensional Acculturation Scale (AAMAS-COO, AAMAS-AA, AAMAS-EA) were entered as the predictor variable and Child Sport Participation was identified as the dependent variable. The simple regression analysis yielded the following results: The total variation in Child Sport Participation accounted for the all three subscales of the AAMAS was 2.3% (R square =0.023) and was not statistically significant (F=.077, p>.05). This means that parent acculturation, when identified as the only predictor, does not account for a significant amount of variability in Child Sport Participation.

In Model 4.1, Child Sport Participation was the dependent variable and Parent Acculturation was the predictor variable. The coefficients that describe the size of the effect Parent Acculturation had on Child Sport Participation was -.198 (AAMAS-

European American), .460 (AAMAS-Asian American), and .273 (AAMAS-Culture of Origin). Additionally, .427 was the value Child Sport Participation was predicted to have when Parent Acculturation was equal to zero. The regression model for Model 4.1 was identified as: "Child Sport Participation (Y hat) = -.198 (AAMAS-EA) + .460 (AAMAS-AA) + .273 (AAMAS-COO) +.427. This model shows that Child Sport Participation is predicted to decrease by .198 when AAMAS-EA increased by one, predicted to increase by .460 when AAMAS-AA increased by one, predicted to increase by .273 when AAMAS-COO went up by one, and was predicted to be .427 when AAMAS-EA, AAMAS-AA, and AAMAS-COO were equal to zero. Additionally, the total effect of Parent Acculturation on Child Sport Participation was -.198 (AAMAS-EA), .460 (AAMAS-AA), and .460 (AAMAS-COO). The total effects for AAMAS-EA (t= -.128, p> .05), AAMAS-AA (t=.305, p> .05), and AAMAS-COO (t=.110, p> .05) were not significant. Table 4.7 presents the findings of Model 4.1

Figure 4.14
Model 4.1: Child Sport Participation (Y) ~ Parent Acculturation (X_1)

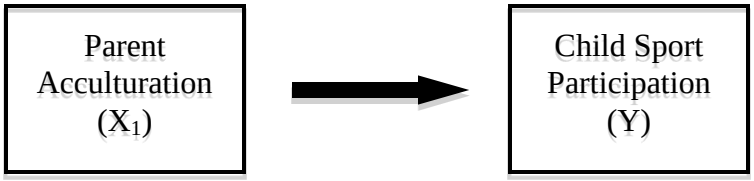


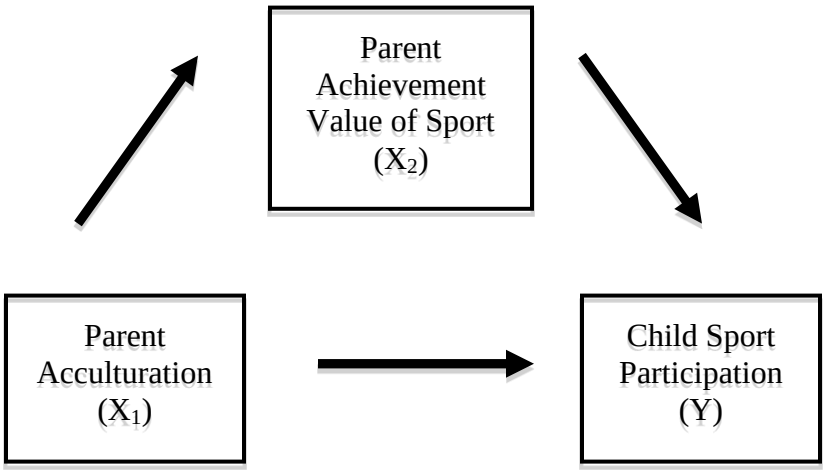
Table 4.7
Findings from Model 4.1: Child Sport Participation (Y) ~ Parent Acculturation (X_1)

Variables	B	Std. Error	B	T	Sig.	R^2	df	F	Sig.
Parent Acculturation						.011	3,122	.077	.972
AAMAS-COO	.273	2.493	.012	.110	.352				
AAMAS-EA	-.198	1.541	.034	-.128	.848				
AAMAS-AA	.460	1.508	-.012	.305	.260				
(Constant)	.427	13.375		.032	.917				

Hypothesis 2: Parent achievement value of sport will mediate the relationship between parent acculturation and child sport participation.

This hypothesis required testing for mediation effects. Mediation effects were examined by looking at the direct influences of Parent Acculturation to the mediating variable, Parent Achievement Value of Sport, and to the direct influence to the outcome variable, Child Sport Participation. As aforementioned, mediation analysis requires two conditions to be satisfied: 1) evidence of a significant direct effect from the mediator to the outcome variable, and 2) results that suggest a direct effect from the predictor variable to the mediating variable. This hypothesis is represented by Model 4.2 in Figure 4.15.

Figure 4.15
Model 4.2: Parent Achievement Value of Sport (X_2) Mediating Parent Acculturation (X_1) and Child Sport Participation (Y)



Step 1: Conduct simple regression analysis with Parent Acculturation (X1) predicting Child Sport Participation (Y) to test for path c alone.

The relationship between Parent Acculturation and Child Sport Participation was previously tested in Hypothesis 1 and was determined to be a nonsignificant relationship. As previously stated, the total variation in Child Sport Participation accounted for by Parent Acculturation was 2.3% (R square =0.023) and was not statistically significant (F=.077; p>.05). Parent Acculturation, when identified as the only predictor, does not account for a significant amount of variability in Child Sport Participation.

Step 2: Conduct a simple regression analysis with Parent Acculturation (X_1) predicting Parent Achievement Value of Sport (X_2) to test for path a.

To test this portion of the hypothesis, illustrated by Model 4.3 in Figure 4.15., a simple regression analysis was performed. All three of the subscales of the Asian American Multidimensional Acculturation Scale (AAMAS-COO, AAMAS-AA, AAMAS-EA) were entered as the predictor variable and Parent Achievement Value of Sport was identified as the dependent variable. The coefficients that describe the size of the effect Parent Acculturation had on Parent Achievement Value of Sport was 7.335 (AAMAS-European American), -3.982 (AAMAS-Asian American), and -2.498 (AAMAS-Culture of Origin). Additionally, 24.447 was the value Parent Achievement Value of Sport was predicted to have when Parent Acculturation was equal to zero. The regression model for Model 2 was identified as: "Parent Achievement Value of Sport (X_2 hat) = 7.335 (AAMAS-EA) – 3.982 (AAMAS-AA) – 2.498 (AAMAS-COO) + 24.447. This model shows Parent Achievement Value of Sport is predicted to increase by 7.335 when AAMAS-EA increased by one, predicted to decrease by 3.982 when AAMAS-AA increased by one, predicted to decrease by 2.498 when AAMAS-COO went up by one, and was predicted to be 24.447 when AAMAS-EA, AAMAS-AA, and AAMAS-COO

were equal to zero. Additionally, the total effect of Parent Acculturation on Parent Achievement Value of Sport was 7.335 (AAMAS-EA), -3.982 (AAMAS-AA), and –2.498 (AAMAS-COO). The total effects for AAMAS-EA ($t= 7.7411$, $p<.001$), AAMAS-AA ($t= -4.112$, $p<.001$), and AAMAS-COO ($t=1.560$, $p<.001$) were flagged as significant.

Figure 4.16
Model 4.3: Parent Achievement Value of Sport (X_2) ~ Parent Acculturation (X_1)

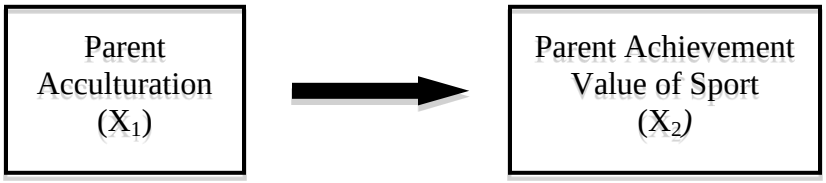


Table 4.7
Findings from Model 4.3: Parent Achievement Value of Sport (X_1) ~ Parent Acculturation (X_1)

Variables	B	Std. Error	B	T	Sig.	R^2	Df	F	Sig.
Parent Acculturation						.440	3,125	32.96	.000
AAMAS-COO	-2.498	1.601	-.130	-1.560	.121				
AAMAS-EA	7.335	.990	.514	7.411	.000				
AAMAS-AA	-3.982	.968	-.339	-4.112	.000				
(Constant)	24.447	8.592		2.845	.005				

Step 3: Conduct a simple regression analysis with Parent Achievement Value of Sport (X2) predicting Child Sport Participation (Y) to test the significance of path b alone.

To test this portion of the hypothesis, illustrated by Model 4.4 in Figure 4.17, a simple regression analysis was performed. In Model 4.4, Child Sport Participation was the dependent variable and Parent Achievement Value of Sport was the predictor variable. The total variation in Child Sport Participation accounted for by Parent Achievement Value of Sport was 0.7% (R square =0.007) and was not statistically significant (F=.183; p>.05). This means that Parent Achievement Value of Sport, when identified as the only predictor, does not account for a significant amount of variability in Child Sport Participation. The coefficients that describe the size of the effect Parent Achievement Value of Sport on Child Sport Participation was -.038. Additionally, 4.254 was the value Child Sport Participation was predicted to have when Parent Achievement Value of Sport was equal to zero. The regression model for Model 3 was identified as: "Child Sport Participation (Y hat) = -.038 (Parent Achievement Value of Sport) + 4.254. This model shows that Child Sport Participation is predicted to decrease by -.038 when Parent Achievement Value of Sport increased by one and was predicted to be 4.254 when Parent Achievement Value of Sport was equal to zero. Additionally, the total effect of Parent Achievement Value of Sport on Child Sport Participation was -.038. The total effect for Parent Achievement Value of Sport on Child Sport Participation (t= -.371, p>.05) was not significant.

Figure 4.17
Model 4.4: Child Sport Participation (Y) ~ Parent Achievement Value of Sport (X_2)

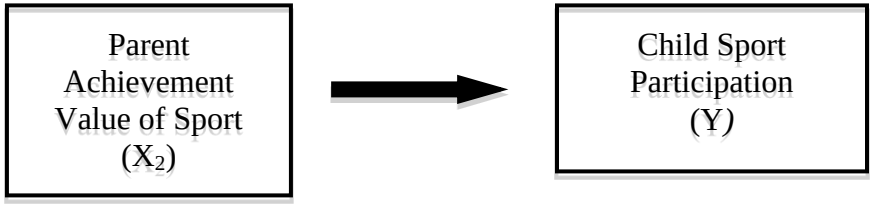


Table 4.8
Findings from Model 4.4: Child Sport Participation (Y) ~ Parent Achievement Value of Sport (X_2)

Variables	B	Std. Error	B	t	Sig.	R^2	df	F	Sig.
Parent Achievement Value of Sport	-.038	.102	-.033	-.371	.771	.007	1, 125	.183	.771
(Constant)	4.254	1.717		2.477	.015				

Step 4: Conduct a multiple regression analysis with Parent Acculturation (X1) and Parent Achievement Value of Sport (X2) predicting Child Sport Participation (Y).

According to Baron and Kenny (1986), the purpose of conducting Steps 1-3 is to establish that zero-order relationships among the variables exist. However, Step 1 revealed that there is a nonsignificant relationship between Parent Acculturation and Child Sport Participation. Additionally, Step 3 also indicated that there is a nonsignificant relationship between Parent Achievement Value of Sport and Child Sport Participation. Since neither variable, Parent Acculturation and Parent Achievement Value of Sport, had a significant direct effect on the outcome variable of Child Sport Participation, it was determined that no significant mediation effect existed in the model. The results of these analyses indicate that mediation is not possible or likely. This strongly suggests that Parent Achievement Value of Sport is not mediating the relationship between Parent Acculturation and Child Sport Participation.

Hypothesis 3: Parent achievement value of sport will significantly predict child sport participation in South Asian Americans.

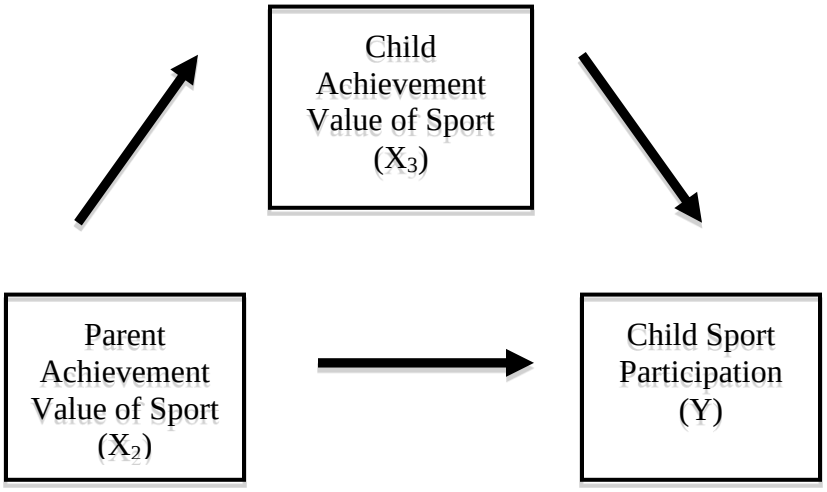
This hypothesis is the same test as Step 3 in the mediation analysis required for testing Hypothesis 2. As previously stated, in Model 4.4, Child Sport Participation was the dependent variable and Parent Achievement Value of Sport was the predictor variable. The total variation in Child Sport Participation accounted for by Parent Achievement Value of Sport was 0.7% (R square =0.007) and was not statistically significant (F=.183; p>.05). This means that Parent Achievement Value of Sport, when identified as the only predictor, does not account for a significant amount of variability in

Child Sport Participation. The coefficients that describe the size of the effect Parent Achievement Value of Sport on Child Sport Participation was -.028. Additionally, 4.254 was the value Child Sport Participation was predicted to have when Parent Achievement Value of Sport was equal to zero. The regression model for Model 4.4 was identified as: "Child Sport Participation (Y hat) = -.038 (Parent Achievement Value of Sport) + 4.254. This model shows that Child Sport Participation is predicted to decrease by -.038 when Parent Achievement Value of Sport increased by one and was predicted to be 4.254 when Parent Achievement Value of Sport was equal to zero. Additionally, the total effect of Parent Achievement Value of Sport on Child Sport Participation was -.038. The total effect for Parent Achievement Value of Sport on Child Sport Participation (t= -.371, p>.05) was not significant.

Hypothesis 4: Child achievement value of sport will mediate the relationship between parent achievement value of sport and child sport participtaion.

This hypothesis required testing for mediation effects. Mediation effects were examined by looking at the direct influences of Parent Achievement Value of Sport to the mediating variable, Child Achievement Value of Sport, and to the direct influence to the outcome variable, Child Sport Participation. As aforementioned, mediation analysis requires two conditions to be satisfied: 1) evidence of a significant direct effect from the mediator to the outcome variable, and 2) results that suggest a direct effect from the predictor variable to the mediating variable. This hypothesis is represented by Model 4.5 in Figure 4.18.

Figure 4.18
Model 4.5: Child Achievement Value of Sport (X_3) Mediating Parent Achievement Value of Sport (X_2) and Child Sport Participation Child Sport Participation (Y)



Step 1: Conduct simple regression analysis with Parent Achievement Value of Sport (X2) predicting Child Sport Participation (Y) to test for path c alone.

The total variation in Child Sport Participation accounted for by Parent Achievement Value of Sport was 0.7% (R square =0.007) and was not statistically significant (F=.183; p>.05). Parent Achievement Value of Sport, when identified as the only predictor, does not account for a significant amount of variability in Child Sport Participation. This relationship was previously tested in Hypothesis 3 and was determined insignificant.

Step 2: Conduct a simple regression analysis with Parent Achievement Value of Sport (X2) predicting Child Achievement Value of Sport (X3) to test for path a.

To test this portion of the hypothesis, illustrated by Model 4.6 in Figure 4.19., a simple regression analysis was performed. In Model 4.6, Child Achievement Value of Sport was the dependent variable and Parent Achievement Value of Sport was the

predictor variable. The total variation in Child Achievement Value of Sport accounted for by Parent Achievement Value of Sport was 6.7% (R square =0.067) and was statistically significant ($F=8.92$; $p<.05$). This means that Parent Achievement Value of Sport, when identified as the only predictor, accounts for a significant amount of variability in Child Achievement Value of Sport. The coefficients that describe the size of the effect Parent Achievement Value of Sport on Child Achievement Value of Sport was .398. Additionally, 25.773 was the value Child Achievement Value of Sport was predicted to have when Parent Achievement Value of Sport was equal to zero. The regression model for Model 6 was identified as: "Child Achievement Value of Sport (X3 hat) = .398 (Parent Achievement Value of Sport) + 25.773. This model shows that Child Achievement Value of Sport is predicted to increase by .398 when Parent Achievement Value of Sport increased by one and was predicted to be 25.773 when Parent Achievement Value of Sport was equal to zero. Additionally, the total effect of Parent Achievement Value of Sport on Child Achievement Value of Sport was .398. The total effect for Parent Achievement Value of Sport on Child Achievement Value of Sport ($t= 3.214$, $p<.05$) was significant.

Figure 4.19
Model 4.6: Child Achievement Value of Sport (X_3) ~ Parent Achievement Value of Sport (X_2)

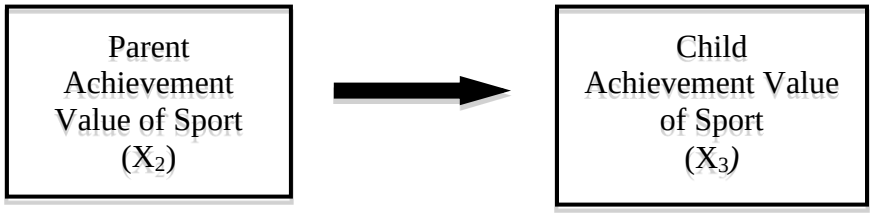


Table 4.9
Findings from Model 4.6: Child Achievement Value of Sport (X_3) ~ Parent Achievement Value of Sport (X_2)

Variables	B	Std. Error	B	T	Sig.	R^2	df	F	Sig.
Parent Achievement Value of Sport	.398	.116	.267	3.214	3.02	.067	1, 125	8.92	.003
(Constant)	25.773	1.849		13.009	.000				

Step 3: Conduct a simple regression analysis with Child Achievement Value of Sport (X3) predicting Child Sport Participation to test the significance of path b alone.

To test this portion of the hypothesis, illustrated by Model 4.7 in Figure 4.20, a simple regression analysis was performed. In Model 4.7, Child Sport Participation was the dependent variable and Child Achievement Value of Sport was the predictor variable. The total variation in Child Sport Participation accounted for by Child Achievement Value of Sport was 7.2% (R square =0.072) and was statistically significant ($F=9.517$; $p<.05$). This means that Child Achievement Value of Sport, when identified as the only predictor, accounts for a significant amount of variability in Child Sport Participation. The coefficients that describe the size of the effect Child Achievement Value of Sport on Child Sport Participation was .243. Additionally, -2.814 was the value Child Sport Participation was predicted to have when Child Achievement Value of Sport was equal to zero. The regression model for Model 7 was identified as: "Child Sport Participation (Y hat) = .243 (Child Achievement Value of Sport) - 2.814. This model shows that Child Sport Participation is predicted to increase by .243 when Child Achievement Value of Sport increased by one and was predicted to be -2.814 when Child Achievement Value of Sport was equal to zero. Additionally, the total effect of Child Achievement Value of Sport on Child Sport Participation was .243. The total effect for Child Achievement Value of Sport on Child Sport Participation ($t= 3.085$, $p<.05$) was significant.

Figure 4.20
Model 4.7: Child Sport Participation (Y) ~ Child Achievement Value of Sport (X_3)

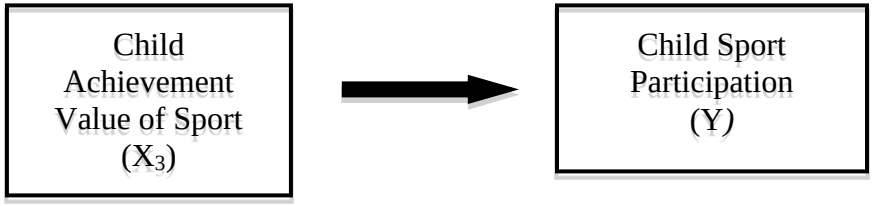


Table 4.10

Findings from Model 4.7: Child Sport Participation (Y) ~ Child Achievement Value of Sport (X_3)

Variables	B	Std. Error	B	t	Sig.	R^2	Df	F	Sig.
Child Achievement Value of Sport	.243	.079	.268	3.085	.002	.072	1, 125	9.517	.002
(Constant)	-2.814	2.313		-1.216	.226				

Step 4: Conduct a multiple regression analysis with Parent Achievement Value of Sport (X2) and Child Achievement Value of Sport (X3) predicting Child Sport Participation (Y).

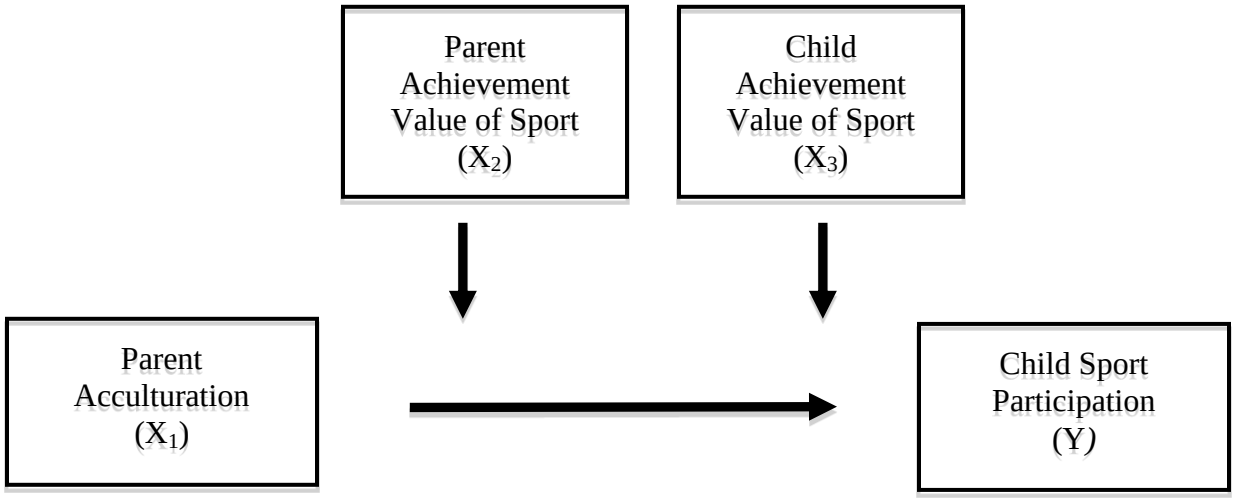
As previously stated, the main purpose of conducting Steps 1-3 is to establish that zero-order relationships among the variables exist. However, Step 1 revealed that there is a nonsignificant relationship between Parent Achievement Value of Sport and Child Sport Participation. Since Parent Achievement Value of Sport did not have a significant direct effect on the outcome variable of Child Sport Participation, evidence that one of the conditions of mediation was violated, it was determined that no significant mediation effect existed in the model. This strongly suggests that Child Achievement Value of Sport is not mediating the relationship between Parent Achievement Value of Sport and Child Sport Participation.

Hypothesis 5: Parent achievement value of sport and child achievement value of sport mediate the relationship between parent acculturation and child sport participation in South Asian Americans.

Figure 21 displays the originally proposed mediation model for the variables in the study. This model hypothesizes that Parent Achievement Value of Sport and Child Achievement Value of Sport mediate the relationship between Parent Acculturation and Child Sport Participation. Because the total effect of Parent Acculturation (predictor variable tested in Hypothesis #1 and Hypothesis #2-Step 1) on Child Sport Participation was not significant the first mediation requirement was not met. Secondly, the total effect of Parent Achievement Value of Sport on Child Sport Participation (predictor variable tested in Hypothesis #2-Step 3, Hypothesis #3, and Hypothesis #4-Step 1) was also found to be not significant, resulting in another mediation requirement not satisfied. However,

the total effect of Parent Acculturation on Parent Achievement Value of Sport, Parent Achievement Value of Sport on Child Achievement Value of Sport, and Child Achievement Value of Sport on Child Sport Participation were all found to be statistically significant.

Figure 4.21
Model 4.8: Parent Achievement Value of Sport (X_2) and Child Achievement Value of Sport (X_3) Mediating the Relationship Between Parent Acculturation (X_1) and Child Sport Participation (Y)



In conclusion, because two of the mediation requirements were not met, the proposed mediation model was not held. In other words, this indicates that Parent Acculturation and Child Sport Participation are not mediated by Parent Achievement Value of Sport and Child Achievement Value of Sport.

CHAPTER V

DISCUSSION

Re-statement of the Problem

In recent decades, researchers have started to examine the factors that influence sport participation among racial/ethnic minorities. A review of the literature revealed that factors related to ethnic minority sport participation has received limited attention, and even smaller amount of empirical research has examined Asian American sport participation.

Asian Americans, one of the fastest growing communities in recent decades (U.S. Census Bureau, 2008) continue to be underrepresented in sports in the United States. Despite an increasing presence in the United States, factors that contribute to Asian American sport participation continue to be understudied in social science literature. When studied, researchers often combine subgroups within the Asian American communities, despite significant differences between subgroups in educational attainment, income earnings, religiosity, family structure, and role of family (Ramisetty-Mikler, 1993). Researchers have found that significant differences exist between sport participation rates, patterns, and preferences among ethnic/racial minority groups, but research is severely limited in looking at the factors that contribute to Asian American sport participation. Additionally, recent trends in sport participation suggest that while other ethnic/racial minority groups are increasing their presence in sports, while Asian Americans may not be increasing at a similar rate (Lapchick, 2008). For example, only .005% of Asian Americans enrolled in college were also engaged in a sport. In professional sports, Asian Americans have also been found to be underrepresented, with

only 1-2% of all players in major professional organizations identifying as Asian American.

In an effort to be more applicable to racial/ethnic minorities' experiences and context, developers of the Expectancy-Value Theory of Achievement Motivation have expanded on their original model to include the influence of contextual factors in predicting achievement outcomes such as sport participation (Eccles et al, 1983. Research has demonstrated support for the Expectancy-Value Theory of Achievement Motivation to understand achievement outcomes for different socially marginalized groups, including gender and racial/ethnic backgrounds. However, no studies to date have empirically tested factors that influence sport participation among Asian Americans. The modified model of the Expectancy-Value Theory of Achievement Motivation allows for a more comprehensive map of how expectancies of abilities, skills, cultural variables, and parental values intersect to shape choice and persistence in a choice (Dixon, Warner, & Bruening, 2008). Prior research has identified that value of sport, parental influence, and acculturation impact sport participation patterns (Fredricks & Eccles, 2002; 2005; (Hosper, Nierkens, & Stronks, 2008; Ryska, 2004; Ryska, 2001). This study further tested the applicability of the expanded Expectancy-Value Theory of Achievement Motivation through investigating constructs that are related to the Asian American experience, but have not yet been examined with sport participation. Speciically, this study examined acculturation of parents, parent's value of sport, and child's value of sport on child's sport participation.

Hypotheses Re-stated

Based on the research questions, five hypotheses were tested using the expanded Expectancy-Value Theory of Achievement Motivation (Eccles et al, 1983) for South Asian Americans. This model examined whether there was a significant relationship between parent acculturation and sport participation. Additionally, the model examined if parent's achievement value of sport mediated the relationship between parent acculturation and child sport participation. Furthermore, the model also examined if there was a significant relationship between parent achievement value of sport and child sport participation. Moreover, the model also evaluated if child achievement value of sport mediated the relationship between parent achievement value of sport and child sport participation. Finally, the model examined whether the relationship between parent acculturation and child sport participation was mediated by parent achievement value of sport and child achievement value of sport.

It was expected that parent acculturation would significantly predict child sport participation in South Asian Americans. It was also hypothesized that parent achievement value of sport would mediate the relationship between parent acculturation and child sport participation. Another expectation was that parent achievement value of sport would significantly predict child sport participation in South Asian Americans. Moreover, it was expected that child achievement value of sport would mediate the relationship between parent value of sport and child sport participtaion. Finally, parent achievement value of sport and child achievement value of sport mediate the relationship between parent acculturation and child sport participation in South Asian Americans.

Review of the Methodology

Two psychometrically validated instruments were used to measure acculturation and achievement value of sport in this study. Parent acculturation was measured using the Asian American Multidimensional Acculturation Scale, a 45-item scale, developed by Chung, Kim, and Abreu (2004), that assesses for levels of acculturation in Asian Americans. To measure child achievement value of sport and parent achievement value of sport, the Task Value (TV) subscale was used, a subscale of the Self-and Task-Perception Questionnaire (Eccles & Wigfield, 1995). Finally, sport participation was measured by asking participants about the number of hours/week they engaged in sports, and number of weeks/year they engaged in sport. Participants' responses were computed to determine an indicator of participation Slutzky and Simpkins (2009).

Participants were recruited in dyads from South Asian American professional, religious, and community organizations. Only individuals who self-identified as South Asian or South Asian American, who were 18 or older, and had a dyad partner also complete the survey were included in the survey. Initially, a total of one hundred and thirty-two-parent-child dyads were evaluated in the study, with a total of two hundred and sixty-four South Asian American participants in the study. The age of the "child" participants ranged from 18 to 42, with an average age of 28. The age of the "parent" participants ranged from 40-68, with an average age of 53.

The five research hypotheses were tested utilizing simple regression analyses and mediation analyses. Assumption checking revealed that there was not a curvilinear relationship between the residuals and each predictor variable in the study. Additionally, analyses indicated that the predictor variables were uncorrelated with the residuals of the

dependent variable. Furthermore, scatterplots appeared to display homoscedascity, indicating that the residuals' variance was constant. Also, correlational analysis revealed that variables' residuals were not highly correlated with each other. And finally, residuals of the dependent variable, Child Sport Participation, were found to follow a normal distribution, as evidenced by the Q-Q plot. All data (preliminary analyses and multiple regression analyses) were analyzed with SPSS statistical software.

Assumption checking revealed that there were three dyads with residuals larger than 2.0. As a result, these dyads, in addition to dyads who identified their country of origin as a country other than India, were removed from further data analysis. This yielded a total of 128 parent-child dyads.

Review of Results

With regard to the first research question, a simple regression analysis was performed with all three subscales of the Asian American Multidimensional Acculturation Scale entered as the predictor variables and Child Sport Participation was identified as the dependent variable. Results indicated that Parent Acculturation did not account for a significant amount of variance, only 2.3%, in predicting Child Sport Participation ($F=.077$, $p>.05$). This indicates that in this study, parent acculturation, when identified as the only predictor, does not account for a significant amount of variability in Child Sport Participation.

In the second research question, mediation analyses were utilized. Mediation analyses examined whether Parent Achievement Value of Sport mediated the relationship between Parent Acculturation and Child Sport Participation. In the previous research question, the relationship between Parent Acculturation and Child Sport Participation was

found nonsignificant. However, the relationship between Parent Acculturation and Parent Achievement Value of Sport was found to be significant, with Parent Acculturation accounting for 4.4% of the variance in Child Sport Participation ($F=32.96$, $p<.001$). Additionally, the relationship between Parent Achievement Value of Sport and Child Sport Participation was also found nonsignificant, with Parent Achievement Value of Sport accounting for only .7% of the variance in Child Sport Participation ($F=.183$; $p>.05$). Because both Parent Acculturation and Parent Achievement Value of Sport were not found to have a significant direct effect on Child Sport Participation, it was determined that Parent Achievement Value of Sport did not mediate the relationship between Parent Acculturation and Child Sport Participation.

With regard to the third research question, a simple regression analysis was conducted. Results indicated that a significant amount of variation was not accounted for by Parent Achievement Value of Sport in Child Sport Participation, only 0.7% ($F=.183$; $p>.05$).

In the fourth research question, mediation analyses were also utilized. Mediation analyses examined whether Child Achievement Value of Sport mediated the relationship between Parent Achievement Value of Sport and Child Sport Participation. Findings indicated that the total variation in Child Sport Participation accounted for by Parent Achievement Value of Sport was 0.1% (R square =0.7) and was not statistically significant ($F=.183$; $p>.05$). However, results indicated that Parent Achievement Value of Sport accounted for a significant amount of variance, 6.7%, in Child Achievement Value of Sport and was statistically significant ($F=8.92$; $p<.05$). Furthermore, Child Achievement Value of Sport was found to account for a significant amount of variance in

Child Sport Participation, 7.2%, and flagged as statistically significant ($F=9.517$; $p<.05$). However, because Parent Achievement Value of Sport was not found to have a significant direct effect on Child Sport Participation, it was determined that Child Achievement Value of Sport did not mediate the relationship between Parent Achievement Value of Sport and Child Sport Participation.

Mediation effects were examined to answer the fifth research question in this study. In both mediation models, from hypothesis two and hypothesis four, a condition of mediation was not satisfied, indicating that there were not mediation effects in the model. Specifically, Parent Achievement Value did not serve as a mediator between Parent Acculturation and Child Sport Participation, and Child Achievement Value of Sport was also found to not serve as a mediator between Parent Achievement Value of Sport and Child Sport Participation.

Implications

Implications from this research study are important to consider because of the examination of three relatively unexplored areas in sport participation research among Asian Americans: parental influence, acculturation, and value of sport.
Researchers are beginning to identify the role of acculturation in constructs related to sport participation, such as recreation activities, and exercise (Berrigan et al., 2006; Lara et al., 2005). However, some research findings indicate that acculturation may be an important factor with some racial/ethnic groups but not others (Hosper Nierkens, Valkengood, & Stronks, 2008). In this study, the lack of significance between Parental Acculturation and Child Sport Participation may indicate several reasons for this finding: 1) Acculturation may not be as important of a factor in Child Sport Participation with

South Asian Americans. This is a potential hypothesis for this finding, as some studies have found a differing impact of acculturation on sport participation among different ethnic/racial groups (Berrigan et al., 2006; Lara et al., 2005); 2) Another hypothesis for this finding incorporates the possibility of other contextual and cultural factors in the relationship between acculturation and sport participation. The impact of acculturation may be buffered by other contextual and cultural factors such as such as perceived racism, perception of access to sports, and self-efficacy. As noted earlier, some studies have found a relationship between perception of opportunities, perceived competence, and barriers and acculturation and sport participation (Ryska, 2004); 3) Another hypothesis for this finding may be related to the age of the participants. The age of the "child" participants, 18 and above, may have buffered the impact of parent's acculturation, resulting in sport participation rates that are independent of their parents' level of acculturation. Reflection of a few of these hypotheses indicate that continuing to explore factors that contribute to sport participation among South Asian Americans, particularly related to parent input variables, should be continued to be explored. The findings of this study are significant in that they provide an opening to our understanding of the intersection between acculturation and sport participation for South Asian Americans. The findings in this study suggest that acculturation and sport participation may be a complex interaction that continues to deserve attention in research.

Although parent acculturation was not found to play a significant role in predicting child sport participation, it was found to significantly impact the parents' value of sport. To this date, no other study has found a relationship between parent acculturation and value of sport.

With regards to parental influence, the extant of literature suggests that parental influence is a significant factor in predicting many achievement outcomes, including sport participation. Research on the impact of parents as role models, providers of experience, and interpreters of experience is extensive but has not been replicated with a substantial South Asian American sample within research studies (Dixon, Warner, & Bruening, 2008; Brustad, 1993; Sallis, Prochaska, & Taylor, 2000). Because other parent variables were significant found to be significant in this study (i.e., Parent Achievement Value of Sport), it appears that parental influence may be considered significant but the variable of acculturation may require additional and nuanced attention to determine the impact it has on Child Sport Participation.

The relationship between Parent Achievement Value and child achievement outcome has been empirically supported for other populations, but has not been replicated yet with a substantial Asian American sample (Dixon, Warner, & Bruening, 2008; Fredricks & Eccles, 2002, 2004, 2005; Greendorfer, 1991; Greendorger & Bruce, 1991, Jacobs & Eccles, 2000). This nonsignificant relationship is surprising because other researchers have found a strong relationship between a parent value and child achievement outcome. However, this may be related to the longevity of parental influence. The Eccles' Value-Expectancy model assumes that if parents value sport participation, children are more likely to participate in sport. However, the model currently assumes that the influence of parents is likely to impact sport participation when children are young (Dixon, Warner, & Bruening, 2008). Most research has focused on the influence of parent value on child outcome when children are young. Because all participants of the study were over the age of 18, it is unclear if this relationship is

nonsignificant because of the distal influence of parents or because it is not a significant predictor with South Asian Americans. Recent research has begun to extend the model to examine the longevity of parental influence on achievement outcomes, such as sport participation, and has found that parental influence strengthens in high school and into young adulthood (Dixon, Warner, & Bruening, 2008; Fredricks & Eccles, 2002). For example, in their qualitative study, Dixon, Warner, and Bruening (2008), examined the distal and proximal influence of parents on child involvement in sport on 17 female NCAA Division 1 coaches. Analysis of data supported Eccles' model of expectancy-value through the emergence of three themes from interviews of the participants: parents serving as role models, parents providing experiences, and parents interpreting experiences. Participants expressed that their persistent involvement in sport (currently as coaches) was a result of their parents' continued interpretation of sport experiences as females. These findings suggest that parents' influence can continue to impact their children's participation in sport distally because children continue to interpret their parents' sports experiences after childhood. Although this relationship in this study was not significant, it may be important to continue examining the distal and proximal impact of parent achievement value of sports on child sport participation among the South Asian American population.

To date, no other research study has examined the relationship between parent achievement value of sport and child achievement value of sport among South Asian Americans. Additionally, no other research study to date has evaluated the relationship between child achievement value of sport and child sport participation with the South Asian American population. Research findings from this study suggest that Parent

Achievement Value of Sport significantly predicts Child Achievement Value of Sport, and Child Achievement Value of Sport significantly predicts Child Sport Participation. This suggests that parents' value of sport is impacting their children's value of sport among South Asian Americans. In turn, the children's value of sport is impacting their level of sport participation. Although theorized by the Expectancy-Value model, these relationships have not been tested with the South Asian American population to be applicable.

The research hypotheses set forth by this study were to evaluate if Parent Achievement Value of Sport and Child Achievement Value of Sport mediated the relationship between Parent Acculturation and Child Sport Participation. The study results identified that these two variables do not serve as mediators.

Limitations

The study had several limitations that should be addressed. As indicated in the data analysis section of this study, this study had a moderately high percentage of surveys that were not able to be used for analysis. Of the 391 collected surveys, 127 surveys were not used because the participants did not complete the demographic section, completed less than two thirds of the whole survey, or had a dyad partner who did not complete the survey. An additional 3 dyads were removed from further analysis after checking assumptions and were found to have large residuals. Furthermore, 2 additional dyads were removed from further analysis when it was revealed that only 4 participants in the study identified their country of origin not as India. To increase homogeneity between participants, these two dyads were removed from data analysis.

Although this study targeted all individuals who identified as South Asian or South Asian American, data collection yielded more than 95% of he participants who identified India as their country of origin. Although recruitment efforts focused on South Asian professional organizations, religious organizations, and community organizations, almost all of the participants identified India as their country of origin. Despite similarities between nationalities within the South Asian subgroup, it is important to note that the findings of this study are only applicable to Indian Americans than to all South Asian Americans. Caution is recommended when generalizing these findings to all South Asian Americans.

The majority of the data was collected through recruitment from South Asian American religious, community, and professional organizations. It is important to consider that being a member of any of these organizations, as a parent or child participant in the dyad, may suggest a certain level of acculturation to the culture of origin and may not be representative of South Asian Americans who are not part of similar organizations. Additionally, membership to any of these organizations may also suggest a higher level of ethnic identity than of participants who identify as South Asian American but are not part of these organizations. Thus, sampling from these organizations could be an inaccurate representative of the levels of acculturation of all South Asian Americans.

One major limitation of this study is embedded in the research design. This study grouped participant responses into dyads. To satisfy the conditions of this pairing, only one child and one parent were required to be paired as a dyad. However, many individuals may have several “parent” figures (i.e., grandparents, mother, father,

stepfather, etc) and any of these individuals may have influenced the "child" participant of the study differently. It may have been helpful to survey multiple parental figures in the home and if additional children were present in the household, more than one child.

Additionally, the Expectancy-Value Model of Achievement Motivation identifies that different socializers, such as parents, may influence their children differently based on the socializers' and children's input variables. For example, numerous research studies have found differences among socializers and their impact on their children based on gender. Specifically, in the domain of sport participation, there have been research studies, with predominantly White samples, that have found that female children are more likely to interpret sport experiences from their female parental figures and male children are more likely to interpret sport experiences from their male parental figures. Although this has not been extensively studied with Asian American participants, it is a limitation of this study that gender differences were not accounted in the relationships between parent acculturation, parent achievement value of sport, child achievement value of sport, and child sport participation. As only one parent was required to participant in the study, gender differences between parent-child participants were not compared. However, if this studied had surveyed all parental figures in the home, findings may suggest that parental influence, value of sport, and acculturation may have differed significantly based on gender identification.

The Expectancy-Value Model of Achievement Motivation, a comprehensive and complex model, incorporates many variables in predicting achievement outcomes. A shortcoming of this study is that many components of the model, such as expectancy beliefs and interests, were not assessed for in parents and children. This information may

have been helpful in locating where and how important contextual factors, such as acculturation, influenced sport participation. Additionally, one component of value of sport that was not assessed for in this current study was cost. Surveying the cost to participate in sport may have allowed for some information to have been gleaned about the perceived barriers that may have played a role in individuals' current sport participation.

This study assessed for achievement values of sport for parents in the present moment. Research suggests that factors that influence achievement outcomes (such as sport participation) begin early in children's lives. Although this study examined the relationship between parent/child achievement value of sport and child sport participation, parents' achievement value of sport may have been significantly different when their children were younger and when the parents were younger. This may suggest that although a parent's achievement value of sport may be at a certain level now, it may have been different when their child was younger, and may have contributed to their child's sport participation in a different way than is being captured by in this study.

Future Research

There are several areas of future research to help further our understanding of the sport participation rates of South Asian Americans. As an interdisciplinary subject area and relatively unexplored area of study, there are many ways to build upon this research study to contribute to the field.

First, this study did not include child expectancies and ability beliefs of sports, two significant variables within the Expectancy-Value Model (Eccles et al., 1983). Future research may benefit in examining how child expectancy beliefs and ability beliefs

among South Asian Americans may be related to sport participation. Furthermore, Eccles' Expectancy Value Model (1983) is a comprehensive model that includes several variables. Future research studies may consider assessing for more variables within the model to determine relationships as they are related to South Asian Americans and sport participation rates.

Second, this study examined parent acculturation as it was related to achievement value of sport of parents and child and sport participation. Future research may benefit in examining the relationship between child acculturation, parent acculturation, parent achievement value of sport, and child achievement value of sport, and overall sport participation of children. This recommendation may provide insight into how parent acculturation is related to child acculturation and how adjustment to different culture impacts sport participation and achievement value of sport.

Third, acculturation was identified as an important contextual variable in the experiences of South Asian Americans. Future research may benefit from examining other contextual factors relevant for South Asian Americans and evaluate its relationship to acculturation. For example, other achievement outcomes, such as career choice, have started to identify how racism serves as a barrier in the career-decision making process. It may be important to evaluate how contextual factors such as acculturation and perceived racism may intersect to impact sport participation rates.

Finally, as previously noted, gender differences exist in sport participation and sport participation persistence. Future research efforts should include examining the relationship between gender identification of the parent socializers and their children. Specifically, this research direction should evaluate how parent acculturation, parent

value of sport, child value of sport, and child sport participation differs with male and female identified parent socializers with their male and female identified children.

Conclusion

After a thorough investigation of all of the research questions in the study, the following conclusions are indicated based on the results: 1) Parent Acculturation does not significant contribute to predicting Child Sport Participation; 2) Parent Acculturation does significantly contribute to predicting Parent Achievement Value of Sport; 3) Parent Achievement Value of Sport does not significantly contribute to predicting Child Sport Participation; 4) Parent Achievement Value of Sport does significantly contribute to predicting Child Achievement Value of Sport; 5) Child Achievement Value of sport does significantly contribute to predicting Child Sport Participation. With regards to the five hypotheses, results for this sample of South Asian Americans partially support the Expectancy-Value Theory of Achievement Motivation (Eccles et al., 1983).

Results from this study provide some support for the utility of the Expectancy-Value Model. However, nonsignificant relationships within the model suggest that additional research is necessary to continue to refine the factors that influence sport participation among South Asian Americans, and even possibly the Expectancy-Value Model. Continued research on South Asian Americans and sport participation is necessary and will allow for a more thorough discussion of how contextual factors, such as acculturation, impact parents and children, their value of sport, and sport participation rates.

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Appendix A

Demographic Questionnaire

INSTRUCTIONS: For the following questions, please fill in the blank or check the response that best describes you:

I am participating in the dyad as a: (pick one) **Parent _____** **Child _____**

Age: _____ Gender: _____

Please indicate your ethnic background (check as many as apply to you)

_____ India
_____ Pakistan
_____ Bangledesh
_____ Nepal
_____ Sri Lanka
_____ Maldives
_____ Other (please specify) _____

What is your mother's/female guardian's highest level of education?

_____ High School degree
_____ Associate's degree
_____ Bachelor's degree
_____ Professional degree (i.e., MD, JD, DDS)
_____ Master's degree
_____ Doctoral degree
_____ Other (please specify) _____

What is your father's/male guardian's highest level of education?

_____ High School degree
_____ Associate's degree
_____ Bachelor's degree
_____ Professional degree (i.e., MD, JD, DDS)
_____ Master's degree
_____ Doctoral degree
_____ Other (please specify) _____

What is your highest level of education?

_____ High School degree
_____ Associate's degree
_____ Bachelor's degree
_____ Professional degree (i.e., MD, JD, DDS)
_____ Master's degree
_____ Doctoral degree
_____ Other (please specify) _____

What is your income level?

_____ Less than $19,999
_____ $20,000 to $39,999
_____ $40,000 to $59,999
_____ $60,000 to $79,999
_____ $80,000 to $99,999
_____ $100,000 to $119,999
_____ $120,000 to $139,999
_____ $140,000 to $159,999
_____ $160,000 to $179,999
_____ $180,000 to $199,999
_____ Greater than $200,000

What is your family's income?

_____ Less than $19,999
_____ $20,000 to $39,999
_____ $40,000 to $59,999
_____ $60,000 to $79,999
_____ $80,000 to $99,999
_____ $100,000 to $119,999
_____ $120,000 to $139,999
_____ $140,000 to $159,999
_____ $160,000 to $179,999
_____ $180,000 to $199,999
_____ Greater than $200,000

How would you identify your generational status in the U.S.?

_____ 1st generation Asian American (I was not born in the U.S.)
_____ 2nd generation Asian American (I was born in the U.S. but my parents were not)
_____ 3rd generation Asian American (One of my parents was born in the U.S.)
_____ 4th generation Asian American (One of my grandparents was born in the U.S.)
_____ 5th generation Asian American (One of my great-grandparents was born in the U.S.)

How long have you lived in the United States? (in years) _____

Appendix B
AAMAS

INSTRUCTIONS: Please respond to the following statements using the following scale:

Not Very much					Very Much
1	2	3	4	5	6

How much do you feel you have in common with people							
	Your culture/country of origin	1	2	3	4	5	6
	Asian American culture/environment	1	2	3	4	5	6
	European American/environment	1	2	3	4	5	6
How much do you interact and associate with people from							
	Your culture/country of origin	1	2	3	4	5	6
	Asian American culture/environment	1	2	3	4	5	6
	European American/environment	1	2	3	4	5	6
How much do you identify with							
	Your culture/country of origin	1	2	3	4	5	6
	Asian American	1	2	3	4	5	6

culture/environment						
European American/environment	1	2	3	4	5	6
How much would you like to interact and associate with people from						
Your culture/country of origin	1	2	3	4	5	6
Asian American culture/environment	1	2	3	4	5	6
European American/environment	1	2	3	4	5	6
How proud are you to be a part of						
Your culture/country of origin	1	2	3	4	5	6
Asian American culture/environment	1	2	3	4	5	6
European American/environment	1	2	3	4	5	6
How negative do you feel about people from						
Your culture/country of origin	1	2	3	4	5	6
Asian American culture/environment	1	2	3	4	5	6
European American/environment	1	2	3	4	5	6
How well do you speak the language of						
Your culture/country of	1	2	3	4	5	6

origin						
Asian American culture/environment	1	2	3	4	5	6
European American/environment	1	2	3	4	5	6
How well do you understand the language of						
Your culture/country of origin	1	2	3	4	5	6
Asian American culture/environment	1	2	3	4	5	6
European American/environment	1	2	3	4	5	6
How well do you read and write the language of						
Your culture/country of origin	1	2	3	4	5	6
Asian American culture/environment	1	2	3	4	5	6
European American/environment	1	2	3	4	5	6
How often do you listen to music or look at movies and magazines from						
Your culture/country of origin	1	2	3	4	5	6
Asian American culture/environment	1	2	3	4	5	6
European American/environment	1	2	3	4	5	6

How knowledgeable are you about the culture and traditions of						
Your culture/country of origin	1	2	3	4	5	6
Asian American culture/environment	1	2	3	4	5	6
European American/environment	1	2	3	4	5	6
How knowledgeable are you about the history of						
Your culture/country of origin	1	2	3	4	5	6
Asian American culture/environment	1	2	3	4	5	6
European American/environment	1	2	3	4	5	6
How much do you actually practice the traditions and keep the holidays						
Your culture/country of origin	1	2	3	4	5	6
Asian American culture/environment	1	2	3	4	5	6
European American/environment	1	2	3	4	5	6
How often do you actually eat the food of						
Your culture/country of origin	1	2	3	4	5	6
Asian American culture/environment	1	2	3	4	5	6

	European American/environment	1	2	3	4	5	6
How much do you like the food of							
	Your culture/country of origin	1	2	3	4	5	6
	Asian American culture/environment	1	2	3	4	5	6
	European American/environment	1	2	3	4	5	6

Appendix C
TVS

INSTRUCTIONS: Please respond to the following statements.

	Not at all useful						Very Useful
In general, how useful is what you learn in sports?	1	2	3	4	5	6	7

	Not at all Useful						A lot more useful
Compared to most of your other activities, how useful is what you learn in sports?	1	2	3	4	5	6	7

	Not at all important						Very important
For me, being good at sports is	1	2	3	4	5	6	7

	Not at all important						Very important
Compared to most of your other activities, how important is it for	1	2	3	4	5	6	7

you to be good at sports?							
	Very boring						Very interesting
In general, I find playing sports	1	2	3	4	5	6	7
	A little						A lot
How much do you like doing playing sports?	1	2	3	4	5	6	7
	Not as much						A lot
Compared to most of your other activities, how much do you like sports?	1	2	3	4	5	6	7

Appendix D

INSTRUCTIONS: The following questions will ask you to consider your participation in the last year in a variety of activities where your gross motor skills were used and competition was involved around an organized set of rules. First, you will be asked to circle the number of hours per week you participated in the activity. For the purposes of this study, participation is defined as: 1) involving gross motor skills; 2) informally or formally competing in the activity with an organized set of rules; and 3) practicing gross motor skills to prepare for a competition. Second, you will be asked to report the number of weeks in the past year you have participated in the activity. If you have not competitively participated in the activity in the past year, please mark 'not applicable.'

In the past week, how many hours have you participated in ***basketball***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in ***basketball***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

In the past week, how many hours have you participated in ***football***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in ***football***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

In the past week, how many hours have you participated in ***tennis***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in ***tennis***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

In the past week, how many hours have you participated in ***baseball***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in ***baseball***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

In the past week, how many hours have you participated in ***softball***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in ***softball***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

In the past week, how many hours have you participated in ***golf***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in ***golf***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

In the past week, how many hours have you participated in ***soccer***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in ***soccer***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

In the past week, how many hours have you participated in ***volleyball***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in ***volleyball***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

In the past week, how many hours have you participated in ***ice hockey***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in ***ice hockey***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

In the past week, how many hours have you participated in ***running***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in ***running***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

In the past week, how many hours have you participated in ***biking***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in ***biking***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

In the past week, how many hours have you participated in ***track and field***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in ***track and field***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

In the past week, how many hours have you participated in ***martial arts***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in ***martial arts***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

In the past week, how many hours have you participated in ***swimming***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in ***swimming***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

In the past week, how many hours have you participated in ***field hockey***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in ***field hockey***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

In the past week, how many hours have you participated in ***ultimate frisbee***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in ***ultimate frisbee?***

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

In the past week, how many hours have you participated in ***racquetball***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in ***racquetball***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

In the past week, how many hours have you participated in ***dance***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in ***dance***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

In the past week, how many hours have you participated in ***badminton***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in ***badminton***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

In the past week, how many hours have you participated in ***rugby***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in ***rugby***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

In the past week, how many hours have you participated in ***lacrosse***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in ***lacrosse***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

In the past week, how many hours have you participated in ***cricket***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in ***cricket***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

Appendix E

INSTRUCTIONS: The following section will allow you to describe your participation in the last year in sport activities (where your gross motor skills were used and competition was involved around an organized set of rules) that were **not asked in the previous section**.

The previous section may not have captured your participation in all sports that you currently participate in. If you participated in sports that were not mentioned in the previous section, you would use this section to indicate the number of hours and weeks you participated in particular sports. For example, if you participated in competitive gymnastics within the last year, you would use the provided space to write in 'Gymnastics' and circle the number of hours and weeks you participated in gymnastics in the past year. Below is an example of a sample response:

In the past week, how many hours have you participated in ***gymnastics?***

Not applicable	Less than 1 hour	Between (1-2) hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in ***gymnastics?***

Not applicable	1-6 weeks	(7-13) weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

If you do not have any additional sport participation to report, **you may skip this section and go on to the next section.**

In the past week, how many hours have you participated in ________________?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in __________________?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

In the past week, how many hours have you participated in ________________?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in __________________?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

In the past week, how many hours have you participated in ________________?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in __________________?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

In the past week, how many hours have you participated in ________________?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in _________________?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

In the past week, how many hours have you participated in ________________?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in _________________?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

In the past week, how many hours have you participated in ________________?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in _________________?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

In the past week, how many hours have you participated in _____?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In the past year, how many weeks have you participated in _____?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

Appendix F

INSTRUCTIONS: The following questions will ask you to consider **your peak participation** in a variety of activities where your gross motor skills were used and competition was involved around an organized set of rules. First, for each activity, you will be asked to think about the year that your participation in that activity was the highest (the year that you participated the most in that activity, or peak participation year). Second, you will be asked to circle the **number of hours per week you approximately participated in the activity during that year.** Third, you will be asked to **report the approximate number of weeks during that year** you participated in the activity. If you have not ever competitively participated in the activity, please mark 'not applicable.'

Your peak participation year for each sport may be different. For example, your peak participation year for basketball may have been when you were 19 and your peak participation year for softball may have been when you were 13.

As stated earlier, for the purposes of this study, participation is defined as: 1) involving gross motor skills; 2) informally or formally competing in the activity with an organized set of rules; and 3) practicing gross motor skills to prepare for a competition.

In your peak participation year, how many hours/week did you participate in ***basketball***?							
Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in ***basketball***?						
Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for ***basketball***? _____

In your peak participation year, how many hours/week did you participate in ***football***?							
Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in ***football***?						
Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for ***football***? _____

In your peak participation year, how many hours/week did you participate in ***tennis***?							
Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in ***tennis***?						
Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for ***tennis***? _____

In your peak participation year, how many hours/week did you participate in ***baseball***?							
Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in ***baseball***?						
Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for ***baseball***? _____

In your peak participation year, how many hours/week did you participate in ***softball***?							
Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in ***softball***?						
Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for ***softball***? _____

In your peak participation year, how many hours/week did you participate in ***golf***?							
Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in ***golf***?						
Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for ***golf***? _____

In your peak participation year, how many hours/week did you participate in ***soccer***?							
Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in ***soccer***?						
Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for ***soccer***? _____

In your peak participation year, how many hours/week did you participate in ***volleyball***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in ***volleyball***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for ***volleyball***? _____

In your peak participation year, how many hours/week did you participate in ***ice hockey***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in ***ice hockey***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for ***ice hockey***? _____

In your peak participation year, how many hours/week did you participate in ***running***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in ***running***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for ***running***? _____

In your peak participation year, how many hours/week did you participate in ***biking***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in ***biking***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for ***biking***? _____

In your peak participation year, how many hours/week did you participate in ***track and field***?							
Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in ***track and field***?						
Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for ***track and field***? _____

In your peak participation year, how many hours/week did you participate in ***martial arts***?							
Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in ***martial arts***?						
Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for ***martial arts***? _____

In your peak participation year, how many hours/week did you participate in ***swimming***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in ***swimming***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for ***swimming***? _____

In your peak participation year, how many hours/week did you participate in ***field hockey***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in ***field hockey***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for ***field hockey***? _____

In your peak participation year, how many hours/week did you participate in ***ultimate frisbee***?							
Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in ***ultimate frisbee***?						
Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for **ultimate frisbee**? _____

In your peak participation year, how many hours/week did you participate in ***racquetball***?							
Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in ***racquetball***?						
Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for ***racquetball***? _____

In your peak participation year, how many hours/week did you participate in ***dance***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in ***dance***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for ***dance***? _____

In your peak participation year, how many hours/week did you participate in ***badminton***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in ***badminton***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for ***badminton***? _____

In your peak participation year, how many hours/week did you participate in ***rugby***?							
Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in ***rugby***?						
Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for ***rugby***? _____

In your peak participation year, how many hours/week did you participate in ***lacrosse***?							
Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in ***lacrosse***?						
Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for ***lacrosse***? _____

In your peak participation year, how many hours/week did you participate in ***cricket***?

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in ***cricket***?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for ***cricket***? _____

Appendix G

INSTRUCTIONS: The following section will allow you to describe **your peak participation** in various sport activities (where your gross motor skills were used and competition was involved around an organized set of rules) that were **not asked in the previous section**.

The previous section may not have captured your peak participation in all sports that you have participated in your life. If you participated in sports that were not mentioned in the previous section, you would use this section to indicate the number of hours and weeks you participated in those particular sports.

For example, if you participated in competitive wrestling, you would think about the year that your participation in wrestling was the highest (peak participation year). You would use the provided space to write in 'Wrestling' and indicate the number of hours and weeks you participated in wrestling during the year that you participated in wrestling the most.

Below is an example of a sample response:

In your peak participation year, how many hours/week did you participate in *wrestling*?							
Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours
In your peak participation year, how many weeks did you participate in *wrestling*?							
Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks	
How old were you during your peak participation year for this sport? *17*							

As stated earlier, for the purposes of this study, participation is defined as: 1) involving gross motor skills; 2) informally or formally competing in the activity with an organized set of rules; and 3) practicing gross motor skills to prepare for a competition.

If you do not have any additional sport participation to report, **you may skip this section and go on to the next section.**

In your peak participation year, how many hours/week did you participate in _____*?*							
Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in _____?						
Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for this sport? _____

In your peak participation year, how many hours/week did you participate in _____*?*							
Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in _____?						
Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for this sport? _____

In your peak participation year, how many hours did you participate in _____***?***

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in _____?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for this sport? _____

In your peak participation year, how many hours/week did you participate in _____***?***

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in _____?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for this sport? _____

In your peak participation year, how many hours/week did you participate in _____***?***

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in _____?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for this sport? _____

In your peak participation year, how many hours/week did you participate in _____***?***

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in _____?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for this sport? _____

In your peak participation year, how many hours/week did you participate in _____***?***

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in _____?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for this sport? _____

In your peak participation year, how many hours/week did you participate in _____***?***

Not applicable	Less than 1 hour	Between 1-2 hours	Between 3-5 hours	Between 6-9 hours	Between 10-14 hours	Between 15-20 hours	More than 20 hours

In your peak participation year, how many weeks did you participate in _____?

Not applicable	1-6 weeks	7-13 weeks	14-21 weeks	22-30 weeks	31-40 weeks	41-52 weeks

How old were you during your peak participation year for this sport? _____

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EDUCATION

University of Wisconsin-Milwaukee, Milwaukee, WI
Ph.D. in Counseling Psychology - August 2012
APA Accreditation
Dissertation: *Sport participation among South Asian Americans: The influence of acculturation and value of sport.*
Mentors: Dr. Azara Santiago-Rivera; Dr. Shannon Chavez-Korell

University of Iowa, Iowa City, IA
B.A. in Psychology - May 2004

HONORS

Post-Doctoral Residency at UW-Madison's Counseling & Consultation Services	August 2012
Advanced Opportunity Program Fellowship UW- Milwaukee	2009- Present

AWARDS

Outstanding Student Award- UW-Milwaukee School of Education	Spring 2012
APA Travel Scholarship- American Psychological Association	August 2010
UWM Graduate Student Travel Scholarship	May 2010
Campus Representative of the Month, APAGS	March 2009
Teaching/Research Assistantship -Department of Educational Psychology	2008-2009
Teaching Assistantship - Department of Educational Psychology	2007-2008

CERTIFICATIONS

Certified BASICS (Brief Alcohol Screening and Intervention for College Students) Practitioner

CLINICAL INTERNSHIP

University of Wisconsin- Counseling & Consultation Services
August 2011- August 2012
APA Accredited
Pre-Doctoral Intern
Supervisors: Alex Faris, Ph.D; Jennifer Young, Ph.D; Felix Savino, Ph.D;

Counseled a caseload of 15-20 undergraduate and graduate students for mental health concerns related to mood disorders, relationship problems, anxiety, family concerns, adjustment, trauma,

and crisis intervention. Provided counseling center triage services by responding to emergency phone calls, providing crisis intervention services, conducting risk assessments, and utilizing brief intake assessments. Provided intake assessments, individual therapy, couples therapy, and outreach for staff and students. Provided culturally appropriate treatment for students. Utilized community resources to provide appropriate referrals to students. Actively participated in clinical committee meetings, staff meetings, and professional development activities.

Provided weekly supervision to 2 practicum students. Administered substance use evaluations, eating disorder assessments, and ADHD screenings.

Facilitated several interpersonal process groups. Developed interpersonal process group for students who identified as ethnic and racial minorities. Co-led Adult Children of Alcoholics support group. Developed group screening template, group intervention graph, and provider tracking form.

Member of University Health Service's Research Committee. Involved in project team related to the launching of the Behavioral Health program within University Health Services. Aided in the development of behavioral health protocols. Member of University Health Service's Healthy Eating Services Committee. Member of C&C's Internship Training Committee. Member of University of Health Service's Equity & Diversity Committee.

Attended seminars on a weekly basis for multiculturalism, supervision of supervision, group therapy, couples therapy. Actively participated in seminars for eating disorder assessments, substance use assessments, ADHD screenings, sexual violence, and crisis intervention training.

CLINICAL EXPERIENCE

University of Wisconsin-Madison, Madison, WI
August 2012- Present
Senior Staff Psychologist
Supervisor: Danielle Oakley, Ph.D.
Provided crisis intervention support to adult male and female inmates as a result of incarceration. Evaluated and monitored inmates' level of suicidal or homicidal ideation. Conducted initial psychological screenings to determine the mental health needs of inmates referred by medical and security staff. Triaged and consulted with nursing and security staff regarding inmates' mental health care and concerns. Counseled a caseload of 3-4 clients weekly for anxiety, depression, self-injury, adjustment, and personality concerns. Used a variety of brief therapeutic approaches. Co-facilitated ICOPE (I Can Overcome Problems Effectively) groups based on cognitive behavioral interventions to assist inmates with development of healthy coping, problem solving strategies, anger, forgiveness, communication, and safety.

Kenosha County Sheriff's Department, Milwaukee, WI
June 2010- January 2011
Advanced Doctoral Practicum Student
Supervisor: Melissa Caldwell, Ph.D.
Provided crisis intervention support to adult male and female inmates as a result of incarceration. Evaluated and monitored inmates' level of suicidal or homicidal ideation. Conducted initial psychological screenings to determine the mental health needs of inmates referred by medical and security staff. Triaged and consulted with nursing and security staff regarding inmates' mental health care and concerns. Counseled a caseload of 3-4 clients weekly for anxiety, depression, self-injury, adjustment, and personality concerns. Used a variety of brief therapeutic approaches. Co-facilitated ICOPE (I Can Overcome Problems Effectively) groups based on

cognitive behavioral interventions to assist inmates with development of healthy coping, problem solving strategies, anger, forgiveness, communication, and safety.

St Rose Youth and Family Center, Milwaukee, WI
September 2009-May 2010
Advanced Doctoral Practicum Student
Supervisor: Stephen Wester, Ph.D.
Assessed adolescent females in the areas of disruptive behavior disorders, depression, personality concerns, anxiety, and self-harm by giving a full psychological assessment battery. Administered WISC-IV, KBIT-II, Achenbach semi-structured clinical interview, MMPI-A, Rorschach, and trauma-related symptoms inventories. Completed integrative reports that included treatment recommendations for each assessed adolescent.

Marquette University Counseling Center, Milwaukee, WI
September 2008-May 2009
Advanced Doctoral Practicum Student
Supervisor: Angela Schmidt, Ph.D. & Dr. Joan Ravanelli-Miller, J.D., Ph.D.
Counseled a caseload of 8-10 clients weekly for career counseling, anxiety (panic disorder, GAD), depression, ADHD, self-injury, sexual identity concerns, and eating disorders. Provided counseling center on-call services, by responding to emergency phone calls and students walking in that needed immediate assistance. Administered intake and assessments including Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI), CAARS, Test of Variable Attention (TOVA), and Liebowitz Social Anxiety Scale. Provided career counseling and administered, scored, and interpreted career counseling assessments including the Meyers-Briggs Type Indicator and the Strong Interest Inventory. Provided substance abuse interventions through the BASICS program to educate and assess students referred by the University. Received training and supervision in BASICS (alcohol treatment for college students), motivational interviewing, cognitive-behavioral therapy, solution-focused therapy, eating disorder assessments, ADHD evaluations, suicide assessments, and the software package Titanium. Coordinated and implemented campus-wide outreach programming including mental health screening days. Participated in professional case consultations on an interdisciplinary team of psychologists, counselors, psychiatrists, and social workers. Created electronic scoring system for Eating Disorder Inventory-3 (EDI-3).

Rogers Memorial Hospital, Milwaukee, WI
September 2007-May 2008
Doctoral Practicum Student, Child/Adolescent Day Treatment
Supervisor: Nancy Goranson, Psy.D.
Provided individual and group therapy for children referred for a variety of reasons including ADHD, ODD, CD, and PDD. Trained in utilizing behavior therapy and contingency management interventions (token economy). Provided family therapy for families of the children admitted to the day treatment program.

TEACHING EXPERIENCE

University of Wisconsin-Milwaukee, Milwaukee, WI
Department of Educational Psychology
Adjunct Faculty
Fall 2012
Multicultural Mental Health Guidelines and Ethics Overview

University of Wisconsin-Madison, Madison, WI
Department of Educational Psychology
Guest Lecturer
Spring 2012
Gender Studies

University of Wisconsin-Milwaukee, Milwaukee, WI
Department of Educational Psychology
Adjunct Teaching Position
Spring 2011
Essentials of Counseling
Taught 3-credit master's level course. Constructed syllabus presentations, and assignments. Provided lecture and out of class individual consultation for students. Incorporated technology into course by using drop box submissions, electronic feedback on papers/exams and posting of course readings and materials using Desire 2 Learn software (D2L).

University of Wisconsin-Milwaukee, Milwaukee, WI
Department of Educational Psychology
Teaching/Research Assistant of Living Learning Community
Fall 2008-Spring 2009
Career Exploration Courses and Programming
Taught two sections of 2-credit class career planning course to undergraduate students. Co-designed educational programs for residential hall on topics related to career-decision making. Worked closely with course supervisor in augmenting course curriculum. Received positive feedback on student evaluations with a rating that was higher than the average rating for an instructor in the department. Curriculum focused on helping students identify vocational identity through self-awareness activities including: identifying career interests, work values, and skills; Holland codes to identify career interests related to possible careers; online assessment tools; and awareness and identification of contextual factors that influence career decision making. Collaborated with residence hall staff, director of Career Development Center, and Dr. Nadya Fouad to conduct a research study on the influence of living learning communities on career decision-making.

Carroll College, Waukesha, WI
Department of Psychology
Guest Lecturer Teaching Position
Fall 2008
Abnormal Psychology

University of Wisconsin-Milwaukee, Milwaukee, WI
Student Success Program
Instructor
Fall 2008
Workshops
Taught 6 workshops as part of an enrichment program to gifted urban high school students. Provided instruction and facilitated group activities related to the assertive communication, expressing emotions, and discrimination.

University of Wisconsin-Milwaukee, Milwaukee, WI
Student Success Program
Instructor

Summer 2008
Career Exploration Course
Taught two sections of a career exploration course to at-risk students transition from high school to college. Course focused on familiarizing students with major and career options, relevant resources, and career planning.

University of Wisconsin-Milwaukee, Milwaukee, WI
Department of Educational Psychology
Teaching Assistant
Fall 2007-Spring 2008
Educational Psychology 101: Planning Your Major and Career (4 sections per semester)
Taught a 1-credit 15-week career planning course to undergraduate students. Adapted curriculum to meet varying student needs, interests, learning styles and special needs. Received positive feedback on student evaluations with a rating that was higher than the average rating for an instructor in the department. Curriculum focused on helping students identify vocational identity through self-awareness activities including: identifying career interests, work values, and skills; Holland codes to identify career interests related to possible careers; online assessment tools; and awareness and identification of contextual factors that influence career decision making. Worked closely with course supervisor in augmenting course curriculum

OUTREACH

University of Wisconsin-Madison, Madison, WI
Summer 2012
Athletics Department
Health Ambassador

University of Wisconsin-Madison, Madison, WI
December 2011
Chadborne Residential Hall
Presenter
Developed presentation and handout for out-of-state students and students who identify as international students on winter wellness in the Midwest.

University of Wisconsin-Madison, Madison, WI
September 2011
Center for Educational Opportunity
Presenter
Provided Freshmen Survival Skills workshop and developed handout for first-year students from low-income families at the University of Wisconsin.

Marquette University, Milwaukee, WI
February 2009
National Anxiety Screening Day
Conducted screenings for students using Beck's Depression Inventory. Scored instruments and made appropriate referrals based on results.

Marquette University, Milwaukee, WI
October 2008
National Depression Screening Day
Conducted screenings for students using the Beck's Anxiety Inventory. Scored instruments

and made appropriate referrals based on results.

Rape Victim Advocacy Program, Iowa City, IA
April 2006 & April 2007
Sexual Assault Awareness Month
Education Coordinator
Coordinated Sexual Assault Awareness Month activities across the University of Iowa community and a four-county area.

University of Iowa, Iowa City, IA
February 2006 & February 2007
Human Sexuality Course
Education Coordinator
Developed and presented information on sexual assault, bystander invention, and survivors to undergraduate psychology class.

University of Iowa, Iowa City, IA
August 2005 & August 2006
Athletic Department
Education Coordinator
Developed and presented information on sexual assault, bystander invention, and survivors to University of Iowa's athletes.

University of Iowa, Iowa City, IA
August 2005 & August 2006
Parent Orientation
Education Coordinator
Developed and presented information on sexual assault, bystander invention, and survivors to parents of first-year students.

Rape Victim Advocacy Program, Iowa City, IA
August 2005- July 2007
Local Middle Schools and High Schools
Education Coordinator
Designed and taught lessons using evidence-based curriculum "Expect Respect" with modifications to lesson plans. Students were compelled to carefully analyze the impact of key ideas and beliefs expressed through media images on various topics while learning to listen to others' ideas and express their own in a safe environment. Worked extensively to provide a school wide prevention program over the course of 27 weeks on the development of healthy relationships. Helped students to evaluate warning signs, unmet needs, and safety planning in relationships.

EMPLOYMENT

Hyde & Lichter, Milwaukee, WI
November 2010- July 2011
Consultant
Conducted I/O assessments used in the candidate selection process for major corporations.

St. Rose Youth & Family Center, Milwaukee, WI
June 2010- Present
UW-Milwaukee Student Supervisor

Supervisor: Stephen Wester, Ph.D
Fostered the development of the UW-Milwaukee and community-based organization partnership that provided training in the administration of psychological assessments, clinical interviews, and integrative report writing for advanced graduate students. Supervised doctoral students in administering psychological assessments and writing integrative reports. Researched and purchased psychological assessments to be used on female adolescents placed in the residential treatment facility. Coordinated all aspects of the Diagnostic Evaluation Center and UW-Milwaukee community-based organization partnership.

Rape Victim Advocacy Program, Iowa City, IA
August 2005-July 2007
Education Coordinator
Provided support and information on the statewide, local, and prison rape crisis line. Worked closely with victim/survivors of sexual violence on in-person legal, medical, and systems advocacy. Initiated, organized, and facilitated a 24-week support group at United Action for Youth, a local youth center, on dating and other related topics: abuse, breakups, balance, discrimination, assertive communication, sexual assault, power and control, jealousy, and gender norms. Designed and taught lessons using evidence-based curriculum "Expect Respect" with modifications to lesson plans. Students were compelled to carefully analyze the impact of key ideas and beliefs expressed through media images on various topics while learning to listen to others' ideas and express their own in a safe environment. Worked extensively to provide a school wide prevention program over the course of 27 weeks on the development of healthy relationships. Helped students to evaluate warning signs, unmet needs, and safety planning in relationships. Provided group therapy with at-risk teens at rural and alternative high schools in areas of stalking, sexual assault, child sexual abuse, dating violence, neglect at home, and violence at home. Coordinated Sexual Assault Awareness Month activities across the University of Iowa community and a four-county area.

Foundation 2 Crisis Center, Cedar Rapids, IA
August 2004- November 2005
Crisis Counselor
Obtained intensive training in crisis intervention skills. Assessed suicide risk and provided telephone and walk-in crisis counseling.

Foundation 2 Mobile Crisis Outreach, Cedar Rapids, IA
October 2004- November 2005
Mobile Crisis Counselor
Provided on-site crisis intervention to assess suicide risk, diffuse emotional situations, and mediate in family crises.

RESEARCH EXPERIENCE

University of Wisconsin-Madison, Madison, WI
September 2011- Present
University Health Services
Research Team Member
Research Team Coordinator: David Lacocque, Psy.D.
Collaborated in the developed and analysis of data from electronic questionnaires. Presented on using a Community-Based Participatory Research Model within a university setting.

University of Wisconsin-Milwaukee, Milwaukee, WI

Department of Educational Psychology
September 2007- Present
Research Team Member
Supervisor: Azara Santiago-Rivera, Ph.D.
Collaborated in the development and evaluation of Behavioral Activation, a culturally adapted intervention for Latinos diagnosed with depression. Headed the dissemination of information of Behavioral Activation through the use of technology. Participated in examining the role of contextual factors on college adjustment among Latino/a students. Collaborated on writing a manuscript examining the influence of length of time in the United States on acculturation among three age groups of Latinos.

University of Wisconsin-Milwaukee, Milwaukee, WI
Department of Educational Psychology
November 2007- December 2010
Research Team Member
Supervisor: Shannon Chavez-Korell, Ph.D
Participated in examining health disparities and attitudes toward health care provides among socially marginalized groups. Conducted literature reviews on health disparities research with Latinos in counseling psychology journals. Aided in researching proposal for grants and other funding opportunities. Participated in recruitment, data entry, and data analysis examining cultural influences on Latino/a health beliefs and attitudes. Collaborated on writing a manuscript examining cultural influences on Latino/a mental health.

University of Wisconsin-Milwaukee, Milwaukee, WI
Department of Educational Psychology
Fall 2008-Spring 2009
Graduate/Teaching Assistant
Supervisor: Nadya Fouad, Ph.D
Collaborated on project examining the influence of Living Learning Communities on career decision-making among first-year students at the University of Wisconsin-Milwaukee. Developed programming material for residence halls to provide increased exposure to careers and career exploration. Served as point of contact for several departments within the university partnering in project.

PRESENTATIONS

Palreddy, S. & Andrews, S. *A Framework for Process Group Work with Students of Color*. Poster Presentation at the 2012 Big Ten Counseling Center Conference, February 2012.

Palreddy, S., Rico, M., Xiong, I., Santiago-Rivera, A. *Impact of time on Acculturation*. Poster Presentation at the 2010 American Psychological Association Conference, August 2010.

Illes. R., Santiago-Rivera, A., Chavez-Korell, S., Reyes, W., Rico, M., Lira, E., **Palreddy, S.,** Benson, G., Hernandez, M. *Exploring the Relationships between Quality of Life, Physical Health, and Depressive Outcomes Among Elders.* Poster Presentation at the 2009 American Psychological Association Conference, August 2009.

Santiago-Rivera, A., Rico, M., Chavez-Korell, S., Benson, G., DeRose, T., Illes, R., **Palreddy, S.,** Reyes, W., Lira, E., Hernandez, M., Xiong, I. *The Impact of Age, Gender and Income on Familismo and Acculturation Among Latinos.* Poster Presentation at the 2009 American Psychological Association Conference, August 2009.

Komondoros, S., Chavez-Korell, S., **Palreddy, S**., Chien, L., & Liu, J. *Relationship among perceived health competence, locus of control, and Latino ethnic identity.* Poster Presentation at the 2009 American Psychological Association Conference, August 2009.

Chavez-Korell, S., **Palreddy, S**., & Stribling-Davis, A. *Examining the usefulness of ethnic identity scale scores in predicting health locus of control.* Poster Presentation at the 2009 American Psychological Association Conference, August 2009.

Chavez-Korell, S., Calvillo, J., **Palreddy, S.,** White, M., Davis-Stribling, A., Liu, J., Ramstack, D., Komondoros, S., Chien, L.L., & Engelking, R. *Examining the relationships between Latino ethnic identity, cultural health beliefs and practices, and general health outcomes for Latino adults.* Poster presentation at the 2008 National Latino/a Psychological Association Conference, November 2008.

Santiago-Rivera, A., Chavez-Korell, S., Illes, R., Reyes, W., Illes, R., DeRose, T., Benson, G. S., & **Palreddy, S.** *Effects of Ethnic Identity, Acculturation, and Familismo on Health Outcomes of Latino Elders.* Poster presentation at the 2008 National Latino/a Psychological Association Conference, November 2008.

Santiago-Rivera, A., Chavez-Korell, S., Benson,G. S., DeRose, T., Illes, R., **Palreddy, S.,** & Reyes, W. *Impact* of *Gender and Age on Familismo and Acculturation: An Exploratory Investigation.* Poster presentation at the 2008 National Latino/a Psychological Association Conference, November 2008.

Davis-Stribling, A. R., Chavez-Korell, S., Ramstack, D. S., Komondoros, S., **Palreddy, S.,** White, M., Chien, L. L., & Liu, J. (2008, August).*Using culturally competent research and community partnerships to promote social justice and empower Native communities*. Poster presented at the 20th Annual Native Health Research Conference, Portland, OR.

DeRose, T., Santiago-Rivera, A., Benson, G., Illes, R., **Palreddy, S.,** Reyes, W. *Latinos with Depression: Treatment Barriers and Service Delivery*. Posted presented at the American Psychological Association Conference, August 2008.

Santiago-Rivera, A., Illes, R., Reyes, W., DeRose,T., Benson, G., **Palreddy, S.** *Behavioral Activation: An Innovative Treatment for Latinos and Depression*. Presented at the International Counseling Psychology Conference, March 2008.

LEADERSHIP POSITIONS & COMMITTEE INVOLVEMENT

University of Wisconsin-Madison, Madison, WI
August 2011- Present
University Health Services: Equity & Diversity Committee
Member

University of Wisconsin-Madison, Madison, WI
August 2011- Present
University Health Services: Research Committee
Member

University of Wisconsin-Madison, Madison, WI
August 2011- Present
Counseling & Consultation Services: Behavioral Health Project Team

Member

University of Wisconsin-Madison, Madison, WI
August 2011- Present
Counseling & Consultation Services: Healthy Eating Service
Member

Counseling Psychology Student Association
May 2009- May 2010
Vice-President

American Psychological Association of Graduate Affiliates
January 2009- December 2009
Campus Representative of Advocacy Coordinating Team

Counseling Psychology Student Association
September 2007- May 2008
Cohort Representative

PROFESSIONAL AFFILIATIONS

American Psychological Association, *graduate affiliate*
National Latino/Latina Psychological Association, *student member*
Division 17: Society of Counseling Psychology
Division 45: Society for the Psychological Study of Ethnic Minorities
Division 47: Society for Exercise and Sport Psychology
University of Wisconsin-Milwaukee Counseling Psychology Student Association
University of Wisconsin-Milwaukee Multicultural Graduate Student Alliance

REFERENCES

Alex Faris, Ph.D.
Staff Psychologist
University of Wisconsin- Madison
Counseling & Consultation Services
333 East Campus Mall
Madison, WI 53715
asfaris@uhs.wisc.edu

Jennifer Young, Ph.D.
Staff Psychologist
University of Cincinnati
Counseling Center
2612 McMicken Ciricle
Cincinnati, OH 45221
jyoung4@.wisc.edu

Felix Savino, Ph.D.
Training Director
University of Wisconsin- Madison
Counseling & Consultation Services
333 East Campus Mall
Madison, WI 53715
fsavino@uhs.wisc.edu

Danielle Oakley, Ph.D.
Director
University of Wisconsin-Madison
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333 East Campus Mall
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