

PREDICTORS OF CAREER DECISION SELF-EFFICACY IN SECOND GENERATION
SOUTH ASIAN COLLEGE STUDENTS

By

SHANAZ ALI SAWYER

A DISSERTATION PRESENTED TO THE GRADUATE SCHOOL
OF THE UNIVERSITY OF FLORIDA IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA

2008

© 2008 Shanaz Ali Sawyer

To my little brother Shezan Azad Ali. His concern for others and passion for the field of mental health was my inspiration for pursuing this study. He departed this life far too early; a tragic loss not only for our family, but for the mental health field as I have always felt he would have made great contributions of his own.

ACKNOWLEDGMENTS

I would like to extend my deepest appreciation to Dr Ellen Amatea, chair of my committee, who guided me through the dissertation process with patience and skill. My sincere thanks also go to Dr Mary Ann Clark and Dr Connie Shehan, each of whom contributed great support and wisdom in this research journey. Additionally I am grateful to Dr Carlos Hernandez for his friendship and counsel through these many years; his wisdom and support have been a source of enduring inspiration.

Many of my family have also been essential in my journey towards achieving this goal. First my parents, Azad and Veronica Ali who have never wavered in their support of my dreams along with my sister, Nerissa Ali-McClory, her husband Robert and my nephews Evan and Aron; my sister-in-law, Patricia Ashton and her husband Ray for their love and encouragement from the day we met, and their passion for their work which inspired me in my own research journey. My mother-in-law, Maxine Sawyer, a beautiful soul whom I have been blessed to know – she raised a terrific son and I thank her.

I also thank my own personal cheerleaders, Razia Ali Hamm and Racquel White who, through the years have been the standard of friendship no matter where they were in the world; my dissertation companion and friend Kelly Aissen, without whom this research journey would have been far lonelier; and my wonderful village of friends including Mickey Schafer, Tina Lee, Cindy Eisenschenk, Deborah Evans, Marcy Coleman, Cindy Wall, Helda Montero, Joan Scully, their families and of course, Andrew Ali Hamm, who unselfishly lent their time and support, whether cheering me on, providing a meal or childcare, or just a few hours of much needed respite.

I thank my two beautiful children, Annika and Adam who came along during this long journey and have shown me how to really cherish life on a daily basis; my stepson Ryan, to

whom I have been truly blessed and privileged to be a step-mother, and of whom I am so proud. Finally, I thank my husband, Mike, who is my rock, and has encouraged me to continue this endeavor throughout these many years. His love, wisdom and resolute faith in my ability to complete this task have many times sustained me through the ups and downs as I worked to make my dream a reality.

TABLE OF CONTENTS

	<u>page</u>
ACKNOWLEDGMENTS	4
LIST OF TABLES	8
ABSTRACT	9
CHAPTER	
1 INTRODUCTION	10
Scope of the Problem.....	12
Ethnicity and Career Decision Making	12
Gender and Career Decision Making	14
Acculturation and Career Decision Making	17
Theoretical Framework.....	18
Career Self-Efficacy Theory.....	18
Social Cognitive Career Theory	19
Purpose of the Study	20
Research Questions.....	21
Definition of Terms	21
2 REVIEW OF THE LITERATURE	23
Introduction.....	23
South Asians in the United States.....	23
Acculturation and Ethnic Identity.....	26
Gender.....	29
Androgynous Gender Role Identity.....	35
Self-Efficacy Theory	37
Social Cognitive Career Theory	39
Summary	40
3 METHODOLOGY	41
Delineation of Relevant Variables.....	41
Career Decision Self Efficacy (CDSE)	41
Acculturation	41
Androgynous Gender Role Identity.....	42
Perceived Parental Support.....	42
Gender and Student GPA	43

Population and Sample	43
Sampling Procedures	43
Subjects.....	44
Data Collection Procedures	45
Instrumentation.....	46
Career Decision Self-Efficacy Scale - Short Form (CDSE-SF).....	46
Suinn-Lew Self-Identity Acculturation Scale (SL-ASIA)	47
Bem Sex-Role Inventory – Short Form (BSRI-SF)	49
The Career-Related Parent Support Scale (CRPSS)	50
Demographic Questionnaire.....	51
Hypotheses.....	51
4 RESULTS.....	52
Data Analysis Procedures.....	52
Career Decision Self-Efficacy (CDSE) Scale	53
The Suinn-Lew Asian Self Identity Acculturation (SL-ASIA) Scale	53
Career Related Parent Support Scale (CRPSS)	54
Bem Sex Role Inventory (BSRI).....	54
Grade Point Average	54
Analysis Results.....	55
Hypothesis Testing	58
5 DISCUSSION.....	61
Career Decision Self-Efficacy	61
CDSE and Level of Acculturation.....	63
CDSE and Career Related Parental Support.....	64
CDSE and Androgynous Gender Role Identity.....	65
CDSE and Grade Point Average.....	66
CDSE and Gender.....	67
Limitations.....	68
Implications	70
Practice	70
Theory.....	72
Research	73
Recommendations for Future Research.....	74
Conclusions.....	74
APPENDIX	
A LETTER TO PARTICIPANTS.....	76
B DEMOGRAPHIC DATA SHEET	77
LIST OF REFERENCES.....	79
BIOGRAPHICAL SKETCH	85

LIST OF TABLES

<u>Table</u>	<u>page</u>
3-1 Country of birth.....	44
3-2 Choice of major by gender.....	45
4-1 Descriptive statistics of sample on each measure	53
4-2 Distribution of student grade point averages	54
4-4 Source Table for regression model with CDMSE as the dependent variable.....	57
4-5 Results of hypothesis testing.....	60

Abstract of Dissertation Presented to the Graduate School
of the University of Florida in Partial Fulfillment of the
Requirements for the Degree of Doctor of Philosophy

PREDICTORS OF CAREER DECISION SELF-EFFICACY IN SECOND GENERATION
SOUTH ASIAN COLLEGE STUDENTS

By

Shanaz Ali Sawyer

December 2008

Chair: Ellen S. Amatea

Major: Mental Health Counseling

The purpose of this study was to examine the influence of five variables in predicting the level of career decision self-efficacy in second generation South Asian college students: 1) acculturation, 2) perceived parental support, 3) androgynous gender role identity, 4) gender, and 5) participant grade point average. The sample consisted of 138 college students (18-24 years old) who met the criteria for second generation South Asian.

Correlational analyses were conducted to test the associations between each of the pairs of independent variables and the dependent variable, career decision self-efficacy. Two variables were found to have a slight positive association with career decision self-efficacy: career related parental support and participant GPA. Regression analysis was used to evaluate the contribution of the five independent variables in predicting the level of career decision self-efficacy as measured by the Career Decision Self-Efficacy Scale. This set of 5 predictor variables explained 13% ($R^2 = .13$) of the variance in career decision self-efficacy in second generation South Asian college students. Statistically significant associations were found between career decision self-efficacy and career related parental support and participant grade point average. Implications for theory, practice and research were discussed and recommendations for future research were presented.

CHAPTER 1 INTRODUCTION

There is a lack of objective, research-based information on significant aspects of South Asian peoples' experience in the United States. For instance, little is known about the quality of the lives of South Asians in the U.S, the stresses and strains, their mental health needs, and the degree to which they utilize mental health services. Even less is known about the career decision making patterns of South Asians living in this country. South Asians are individuals from India, Pakistan, Bangladesh, Sri Lanka, Nepal, and Bhutan (Inman & Nath, 2002). Although Asian Indians refer to those who are originally from India (Sodowsky & Carey, 1987), the terms 'South Asian' and 'Asian Indian' are often used interchangeably in the social science literature. For the purposes of this study the term, 'South Asian' was be used to refer to persons from the above mentioned six countries. The term 'first generation,' refers to those individuals who came to the U.S after the age of twenty-five while the term, 'second generation' refers to individuals who were either born in the U.S or who came to the U.S before the age of twelve (Inman & Nath, 2002). Second generation South Asians were the target population of interest in this study.

A limited number of studies examining South Asians living in North America can be found scattered throughout the social science literature. For the most part, relevant knowledge about this population has to be pieced together from anthropological and sociological literature (Das & Kemp, 1997). These studies have focused on formulating a cultural profile of the South Asian immigrant family's mental health needs.

Although occupational choices of South Asians have been well documented, little is known about the psychological and sociological factors that influence the career decision-making process for this particular group. Many South Asian immigrants have achieved upward structural mobility in the professions of medicine, engineering, nuclear science, and computer

science via university teaching positions or ownership of small private businesses. First generation immigrants frequently have strong roots of emotional security in the extended family 'back home' in India, who offer them continuous moral support and applaud them for their educational and material success in the United States. More recent South Asian immigrants, often from the middle class in India, may have an easier time being accepted and adjusting to the standards of American life than did the earlier waves of uneducated Asians who immigrated to this country from China in earlier years. Although many of these immigrant families try to maintain their traditional social patterns and base their lifestyles on traditional beliefs, values and expectations, changes in traditional role expectations are inevitable depending on their length of stay. (Sodowsky & Carey, 1987; Ramisetty-Mikler, 1993; Farver, Bhadha & Narang, 2002).

Professional employment and vertical and geographic mobility in their adopted country have eased this adjustment. Researchers report that the longer exposure to Western culture and value system has resulted in the Asian Indian family system in the West becoming more egalitarian. For instance, there seems to be more mutual sharing of decision making and household labor between husband and wife, and the children seem to enjoy more independence in their educational and career planning, and in their preferences for Western food, clothes, music, and dancing (Sodowsky & Carey, 1987).

Ibrahim, Ohnishi & Sandhu (1997) propose that gender role expectations of South Asians may vary with generational and educational level, social class, and economic stability. Such expectations can range from extremely patriarchal to egalitarian. These authors contend that South Asian Americans have a high regard for hierarchy in social relationships and assume that a person exists within a hierarchy mediated by education, age, and social class. According to Ibrahim et. al (1997) South Asians yearn for the ideals of individualism, yet reality requires an

acceptance of hierarchical systems, relationships, and the importance of the group. In addition, people work for the future, they are planful and goal oriented, whereas focusing on the here and now is a low priority.

Hence second generation South Asian young adults may be enjoying greater independence in career-decision making, yet it is unclear how these young adults reconcile differing cultural expectations for their career decision making and identity development because Farver et al., (2002), contend that many South Asian families discourage adolescent independence especially with regard to career choice and marriage. This study sought to examine the influence of such family expectations by assessing the impact of perceived parental support, participant level of acculturation, gender, androgynous gender role identity and grade point average (academic achievement) on the confidence or efficacy in career decision-making of second generation South Asian college students.

Scope of the Problem

Although much of the existing social sciences literature fails to distinguish between the many ethnic groups within the Asian domain, there seem to be many stereotypes applied to all Asian subgroups including South Asians that reflect assumptions about career and academic decision making.

Ethnicity and Career Decision Making

Since the 1960's, the media and press have often portrayed Asian Americans as the model minority, which refers to the stereotype of Asian Americans who have achieved extraordinary success academically, as well as economically. Reports indicate that Asian Americans not only have higher college attendance rates but also higher achievement test scores than do Caucasians (Kim, Rendon & Valadez, 1998). This stereotype may seem more applicable to South Asian Americans since there is little documentation of unemployment within this group,

whereas there is much evidence related to under and unemployment as well as illiteracy and high school drop out rates among many other Asian subgroups within the United States.

Kim and her associates (1998) contend that Asian Americans are by no means a homogeneous group in terms of academic performance, educational aspirations and attainment, and socioeconomic characteristics. They conducted a study to investigate whether there were differences in the educational aspirations, math performance, and socioeconomic characteristics of 10th graders, from six major Asian ethnic groups (Chinese, Filipinos, Japanese, Koreans, Southeast Asians, and South Asians). They also explored whether there were differences among the six ethnic groups in terms of parental expectations; parental occupational status and socioeconomic level; peer influence; academic self-concept, and type, location, and racial and academic climates of their schools. They found that, on average, South Asian students tended to express the highest educational aspirations and have the highest math performance. Moreover, South Asian parents tended to have the highest level of education and the highest status of occupation as compared to the other five ethnic groups. Yet all six groups were characterized by high parental educational expectations which were positively related to students' high educational aspirations.

When compared to other minority groups in America, Asian Americans seem to achieve educationally at a high level with approximately 8 out of 10 Asian American high school graduates enrolled in college two years after graduation (Herr & Cramer, 1996). An earlier study by Leong & Hayes (1990), investigated occupational stereotyping of Asian Americans, which included South Asians. Questionnaires were given to only White students that included profiles of a variety of students indicating gender, age and ethnicity (White or Asian). Using 16 occupations, the participants were then asked to rate the individual in terms of a) the probability

of success within each occupation, b) how well qualified the individual was to seek occupational training within the occupations listed, and c) how likely the individual was to be accepted by coworkers within the occupations listed. The researchers found that Asian Americans compared to Whites were rated as more likely to be successful as engineers, computer scientists, and mathematicians, but not insurance salesperson. Women were rated as less qualified to seek training as engineers, police officers and economists, but more qualified to seek training as secretaries. This study noted that Asians Americans were heavily overrepresented in mathematics, engineering and biological sciences [traditional career choices for Asian Americans], but underrepresented in education, and the social and behavioral sciences [non-traditional career choices for Asian Americans] (Leong & Hayes, 1990). As noted earlier these studies rarely distinguish between South Asians and other Asian subgroups so it is unclear as to how South Asians are represented in various occupations. In addition, it is unclear to what extent the career paths of second generation South Asian men and women are influenced by their families and to what degree their career choices reflect traditional versus non-traditional occupational choices for the South Asian population in general.

Gender and Career Decision Making

Lips (1992) assessed gender and science-related attitudes as predictors of college students' academic choices in a study of 253 female and 235 male college students. She found that males disagreed more than females that women can combine scientific careers and family. She concluded that men and women in the study differed in their intentions and behavior with respect to academic and vocational choices involving mathematics and science. Women placed more importance on people-related concerns such as combining career and family, but contrary to prediction, evidenced less concern about the difficulties faced by women in combining careers in mathematics or science with marriage or motherhood. For women, belief in the compatibility

of a science career and family roles were related to intent to study more science. This study demonstrated that, in general, women were underrepresented in the mathematics and science fields but their attitudes revealed that the pursuit of careers in such fields was more related to interest in those fields, rather than the attitude that these career fields are too difficult for women, or not conducive to multiple family roles. Other factors listed as partial explanations for the gender differences in the career choice of mathematics or sciences were: number of high-school mathematics and science courses completed; gender differences in the level of confidence in mathematical and scientific ability; gender-related differences in enjoyment of mathematics; and differences in the amount of encouragement toward mathematics and science and non-science fields young women and men receive from parents and teachers. While the author contends that there is an even lower representation of minority women than men in the mathematics and science related career fields the article does not specifically address particular minority women groups.

Betz (1992) contends that in choosing a career, problems for women in general may include an avoidance of career options in traditionally male-dominated career fields. Performance issues may include the effects of low self-efficacy in career decision making as well as consequent anxiety in test taking. Women and minorities enrolled in programs traditionally dominated by Anglo men such as science and engineering, continue to face “chilly” institutional climates where they may encounter little or no support for their nontraditional aspirations. Therefore, increasing self-efficacy expectations may increase women’s “durability” in the face of hostile environments.

Betz & Hackett (1981) investigated the relationships among occupationally related self-efficacy expectations, the nature and range of occupational alternatives considered by

undergraduate women and men, and gender differences in self-efficacy expectations with regard to the educational requirements and job duties of traditionally female and traditionally male occupations. They found that there were significant and consistent gender differences in self-efficacy with regard to traditional and nontraditional occupations. They found greater self-efficacy among students as it related to occupations considered stereotypically traditional for females (e.g. social worker), and for males (e.g. engineer), within those genders. The most significant finding of this study was the observed gender differences due to divergent perceptions of capability among men and women. The women perceived lower capability in traditionally male occupations, whereas men reported equivalent overall self-efficacy with regard to both traditional and nontraditional occupations. In a follow up to this study, Lent and Hackett (1987), contend that the findings still hold true, regarding women and career decision-making self-efficacy, and that beliefs about self-efficacy serve as a potent internal barrier to women's career choices and achievements. With respect to women's career development, self-efficacy theory may also serve as a mechanism through which socialization experiences affect the career behavior of minority women.

Traditionally, the labor market in the United States has been characterized by gender segregation, but some women and men have crossed those lines to enter into careers that are nontraditional for their gender. Lease (2003), explains that the factors that influence men and women to enter gender atypical occupations, likely differ for each gender. For example, men in nontraditional occupations may place less emphasis on status than men in traditionally male dominated careers and may have more liberal attitudes about gender and career choice. While there is increasing evidence that women are increasingly present in traditionally male dominated

occupations, the degree to which this applies to South Asian men and women has yet to be assessed.

Acculturation and Career Decision Making

According to Marin (1992), acculturation in present day American society refers to the degree to which an individual conforms to or identifies with the attitudes, lifestyles and values of the European-American-based macroculture. Research on South Asians indicates strong family relationships and a desire to adhere to core values related to family, dating practices, gender-role relationships, marriage and religion. At the same time there is an adaptation to the pragmatic aspects of survival in the host culture, such as speaking English, disciplining practices, dress style, division of responsibilities at home and career decision making (Inman, Ladany, Constantine & Morano, 2001).

Ngo (2006), assessed the educational differences of Asian American sub groups and contends that an image of high educational achievement among Asian Americans as a larger group fails to address the many differences and diversity between the many Asian American groups that consider ethnic, socioeconomic, generational, and gender issues; that the image of Asian success in America masks economic, social and cultural challenges. For example, while South Asian Americans seem to show evidence of greater academic achievement than other Asian American subgroups, they have to contend with an increasingly hostile environment since the events of September 11, 2001 as hate speech and many hate crimes have often targeted South Asians who many perceive to be Muslim and terrorists. With respect to education, this author concludes that South Asian youth must negotiate and balance expectations and pressures from mainstream American culture as well as family, school and friends.

Theoretical Framework

To explain the career decision making self efficacy of second generation South Asians, a theoretical framework is needed that defines career decision self-efficacy and identifies the role of particular family and cultural processes that influence self-efficacy in career decision making. Consequently, this study is based on the theoretical perspectives of Self-Efficacy Theory and Social Cognitive Career Theory.

Career Self-Efficacy Theory

Albert Bandura (1982) contends that behavior change and therefore decisions made are mediated by expectations of self-efficacy: expectations of beliefs that one can perform a given behavior. The theory states that the level and strength of self-efficacy will determine (1) whether or not a coping behavior will be initiated, (2) how much effort will result, and (3) how long the effort will be sustained in the face of obstacles. This model proposes four principal sources from which expectations of self-efficacy are derived: performance accomplishments, vicarious observational learning experiences, verbal persuasion (encouragement), and emotional arousal (negative anxiety related to performance abilities). In several important studies, self-efficacy has been found to be strongly related to mathematics performance, to career entry behaviors such as choice of college major and academic performance, and to gender differences pertinent to a variety of career behaviors. In his research Bandura reported that the higher the level of induced self-efficacy, the higher the performance accomplishments and the lower the emotional arousal. Bandura also distinguished between outcome expectancy and efficacy expectancy. Outcome expectancy refers to the person's estimate that a given behavior will lead to particular outcomes. An efficacy expectation is an estimate that one can successfully execute the behavior required to produce the outcomes sought. (Bandura, 1982; Betz, 1992; Herr & Cramer, 1996; Sullivan & Mahalik, 2000).

Bandura also addressed the importance of collective efficacy, stating that people do not live their lives as social isolates and that many of the problems, challenges and decisions they may face require a sustained collective effort to produce significant change (Bandura, 1982). It is important to consider this perspective on collective efficacy when looking at a South Asian college student population.

Hackett and Betz (1981) were the first to propose that self-efficacy might be an important variable to include in models of career development, influencing the achievement behavior, academic and career decision making, and career adjustment of both men and women. They extended Bandura's theory of self-efficacy to the career domain and in doing so provided an outline for how personal efficacy may develop differently in men and women due to gender-role socialization, resulting from differential access to the four sources of efficacy information (Lent & Hackett, 1987).

Social Cognitive Career Theory

Albert and Luzzo (1999), describe social cognitive career theory (SCCT) as a framework for conceptualizing career development and as an extension of Bandura's social cognitive theory. Social cognitive career theory recognizes the mutual interacting influences between people, their behavior, and their environment. Personal attributes, such as internal cognitive and affective states, physical attributes, external environmental factors, and overt behaviors or actions, all operate as interlocking mechanisms that affect one another bidirectionally. Social cognitive career theory attempts to explain the development of career and academic interests, the career choice process, and performance outcomes. In addition, this SCCT proposes that goals are a central component in the career process. Goals are defined as the determination to engage in a particular behavior or activity or to affect a particular future outcome. By setting goals, individuals help to organize and guide their behavior. SCCT suggests that there is a complex

interplay among self-efficacy, outcome expectations, and goal setting that work together to help individuals exercise personal agency and become self-directed. However, these components of SCCT do not occur in a vacuum or function alone as these are shaped continually by contextual factors (such as perceived barriers) that lead to career interests and choices. Contextual factors may relate to perceived barriers including a lack of familial support, educational limitations, economic needs, or gender or ethnic discrimination. This may occur among minorities who may realize that there are few representatives in a certain career field from their own ethnic group. (Albert & Luzzo, 1999; Lent, Brown & Hackett, 1994).

In choosing a career, problems for women in general may include an avoidance of career options in traditionally male-dominated career fields. Performance issues may include the effects of low self-efficacy in career decision making as well as consequent anxiety in test taking. Women and minorities enrolled in programs traditionally dominated by Anglo men such as science and engineering, may encounter little or no support for their nontraditional aspirations (Betz, 1992).

In her discussion of SCCT, Sheila Smith (2001) further described the importance of examining the interplay of two complementary levels of theoretical analysis to develop a clearer picture of the social cognitive variables that shape career development behavior. The first level includes the primary cognitive-person variables such as self efficacy outcome expectations and goals. The second level includes personal characteristics such as gender and ethnicity and contextual variables such barriers to decision making.

Purpose of the Study

The purpose of this study was to investigate the career decision self-efficacy of second generation South Asian college students. The influence of five variables on student career decision making self efficacy was examined. The five variables were: 1) level of acculturation,

2) androgynous gender-role identity, 3) perceived parental support in career decision making, 4) gender, and 5) student GPA.

Research Questions

The following research questions were posed in this study:

1. What is the contribution of the combined influence of acculturation, androgynous gender-role identity, perceived parental influence, gender and GPA in predicting the career decision self-efficacy of second generation South Asian college students?
2. Is there a relationship between career decision self efficacy and level of acculturation in second generation South Asian college students?
3. Is there a relationship between career decision self efficacy and androgynous gender role identity in second generation South Asian college students?
4. Is there a relationship between career decision self efficacy and perceived parental support in career decision making in second generation South Asian college students?
5. Is there a relationship between career decision self efficacy and gender in second generation South Asian college students?
6. Is there a relationship between career decision self efficacy and GPA in second generation South Asian college students?

Definition of Terms

For the purpose of this study, key constructs and terms are defined as follows:

Acculturation. Acculturation in American society refers to the degree to which an individual identifies with or conforms (willingly or unwillingly) to the attitudes, lifestyles, and values of the European-American based macroculture (Marin, 1992).

Androgynous Gender-Role Identity. The ability for an individual to use both feminine and masculine traits depending on the situational appropriateness of these modalities (Bem, 1981).

Asian American. Asian American refers to more than twenty nationality groups that came to the United States as early as the late 1800's. The term also covers a wide variety of identities, languages and cultures (Kitano & Maki, 1996).

Career Decision Making Self-Efficacy. An individual's degree of belief that he or she can successfully complete the tasks necessary to making career decisions (Betz & Taylor, 1983).

South Asian. South Asians are described as individuals from India, Pakistan, Bangladesh, Sri Lanka, Nepal, and Bhutan (Inman & Nath, 2002).

Second generation. Second generation is defined as those persons who either were born in the United States or came to the U.S before the age of twelve (Inman & Nath, 2002).

CHAPTER 2 REVIEW OF THE LITERATURE

Introduction

The career development patterns of South Asians living in this country have not been studied extensively by social scientists. Moreover, the particular individual and collective (i.e., familial and societal) factors that influence this group's career decision making. In this chapter, literature concerning the individual and collective factors influencing the career decision self efficacy of second generation South Asian college students is discussed.

A brief history of the immigration patterns of this subgroup in the United States is important to provide an orientation to the issues that influence South Asians. Professionals have accounted for a large percentage of Asian Indian immigrants. In the United States, South Asians have been largely urban, well-educated technical and professional people such as scientists, engineers, doctors, academics, and some business people. A significant number of this subgroup was educated in this country. They came to the United States to pursue higher education and then applied for change of status from international students to permanent residents (Seth, 1995). According to Sodowsky & Carey, (1987), several researchers claim that two-fifths of foreign doctors practicing in the U.S come from either India or Pakistan. Another study reported that eighty-eight percent of the 46,000 Asian Indian immigrants to this country either worked as engineers, scientists, medical professionals, or were the spouses and children of these individuals. Career advancement seems to be an important motivation for immigrating from India.

South Asians in the United States

The general term, 'Asian American' refers to more than 20 nationality groups that came to the United States as early as the late 1800's. These include a wide variety of identities,

languages and cultures within this subgroup. In the last three decades South Asians have comprised a newer immigrant Asian subgroup living in the United States. Diversity within Asian subgroups is often obscured by stereotypes. Kitano & Maki, (1996) contend that Asian Americans are commonly stereotyped because of assumptions that they look alike, act alike, have an Asian face, and have close ties to their ancestral culture.

South Asians are described as individuals from India, Pakistan, Bangladesh, Sri Lanka, Nepal, and Bhutan (Inman & Nath, 2002). These immigrants also represent the ethnic and cultural diversity of the countries on the Indian subcontinent – all the major religions [Hinduism, Islam, Christianity, Sikhism, Buddhism] - and the diverse ethnic and linguistic groups are represented (Das & Kemp, 1997). To understand the ethnic identity of South Asians, it is important to understand the cultural diversity and sociopolitical history of this very large group. Ethnically and culturally there are several influences including Turks, Greeks, Caucasus, Arabs, Huns and the British. Each province is diverse with respect to language, cultural traditions, religions, beliefs and values (Ibrahim, Ohnishi & Sandhu, 1997). The term ‘South Asian’ is often used interchangeably with ‘Asian Indian’ throughout the literature, although the majority of researchers use the former term.

According to the 2000 Census Bureau, South Asians make up the fourth largest Asian American subgroup, approximating three million. This is a rapidly growing subgroup. In 1970 there were not enough South Asians to be counted as a separate subgroup. In 1980 they were 361,544, and in 1990 there were 815,447. Thus, in each of the last three decades the population of this Asian subgroup has almost doubled. These numbers alone imply the importance of attending to South Asian concerns (Kitano & Maki, 1996; Census Bureau, 1990, 2000). First generation South Asians include those individuals who came to the United States after the age of

twenty. Second generation is defined as those who were either born in the United States or came to the U.S before the age of twelve. (Inman & Nath, 2002).

Das and Kemp(1997) have emphasized that objective, research-based information on significant aspects of the experience of South Asians in this country is lacking. For example, not much is known about the quality of their lives, the stresses of their day to day life, their mental health needs, and the degree to which they utilize mental health services. Few studies about South Asians in North America can be found in the literature. For the most part, relevant knowledge about the population has been synthesized from anthropological and sociological literature dealing with peoples on the Indian subcontinent.

Much of the literature fails to distinguish between the many ethnic groups within the Asian domain and stereotypes seem to be applied to all Asian subgroups including South Asians. Since the 1960's, the media and press have often portrayed Asian Americans as the model minority, one stereotype of Asian Americans that suggests that they have achieved extraordinary success academically and economically. Reports indicate that Asian Americans not only have higher college attendance rates but also have higher achievement test scores than Caucasians (Kim et al., 1998). This stereotype may be more applicable to South Asian Americans since there is little documentation about unemployment within this group, whereas there is much evidence related to under and unemployment, illiteracy and high school drop out rates among many other Asian subgroups within the United States. These authors describe a stereotype of Asian Americans as the 'Super student' who is able to leap curricula in a single bound and, faster than a speeding bullet and master all sorts of difficult tasks. The attractiveness of this image is further enhanced by the fact that the student is likely to be the son or daughter of first-generation immigrants.

Acculturation and Ethnic Identity

Acculturation in American society refers to the degree to which an individual identifies with or conforms to the attitudes, lifestyles and values of the dominant Euro-American culture. Ethnic identity has been defined as a person's sense of belonging to an ethnic group (Marin, 1992; Lee, 1997).

According to Phinney, Horenczyk, Liebkind & Vedder (2001), acculturation and ethnic identity are often used interchangeably in the research literature. While the distinction between these constructs is unclear, their inherent processes can be conceptualized in a two dimensional model. Thus, an individual who has a strong ethnic identity and also identifies with the dominant culture is considered to have an integrated or *bicultural* identity. An individual who has a strong ethnic identity but does not identify with the dominant culture has a *separated* identity. An individual that discards an ethnic identity but rather identifies only with the dominant culture has an *assimilated* identity. An individual that rejects ethnic identity and has little interest in that of the dominant culture, the individual is described as having a *marginalized* identity (Berry, 2001). How this perspective applies to second generation individuals is unclear. Chang, Tracey & Moore (2005), state that models of acculturation may account for important differences among individuals within groups, including variables such as stress, satisfaction, attitudes and adjustment.

Ibrahim, Ohnishi & Sandhu (1997) maintain that efforts to develop ethnic identity models for specific minority groups has been limited, particularly for Asian American subgroups, due to the multifaceted nature of Asian American identity. Yet, these authors outlined some basic beliefs and values that are believed to be consistent for all South Asians:

- Self-respect, dignity, and self-control: From early childhood, the importance of these three variables is emphasized. Each person is empowered to achieve self-respect, dignity, and self-control. All excesses are abhorred. The person is seen as an individual in a familial context. Individuality of a person is encouraged within the boundaries and limits of the family. The highest ideal is to achieve a self-identity free of material needs.
- Respect for the family/filial piety: Parents are to be honored and revered. The family extends horizontally and laterally, these various relationships are valued, and appropriate respect is given to each family member.
- Respect for age: It is assumed that the older a person gets, the more maturity and knowledge he or she has. Older persons are respected for these attributes. Families go to elders to resolve familial conflicts. They also turn to older family members for advice and support when they are in a crisis or when social or work relationships are disrupted.
- Awareness and respect for community: This idea derives from the earliest values, previously mentioned, where the community is seen as an extended family and one has responsibilities to the community. This value decides how self-respect, dignity, and self-control are mediated for each person. Respect for community requires awareness (social climate) and sensitivity. This value reinforces group orientation among Pakistani Asian Americans.
- Fatalism: A belief that no matter what one does or does not do, certain challenges are preordained and must be handled appropriately. For example racist attitudes of others will be clearly defined as violence toward self, without taking responsibility for another person's racism. This attitude is in direct contrast to the Greek notion of nemesis, where all positive or negative events are a result of one's behavior. Nemesis underlies most Western assumption of success and failure.
- Humility: It is extremely important to not make oneself the center of attention or to discuss one's accomplishments. It is expected that the more people achieve, the more humble they will be. Others in the group and the community are expected to extol the virtues and accomplishments of group members. It is also very important not to draw attention to yourself by posing as someone who is better than others. This value is misunderstood in the United States as the person having a low self-concept, or maybe not being as accomplished as mainstream colleagues assume the person to be. This value also backfires in the competitive world of the age of information, where South Asian Americans may share their knowledge and others may gain from it. Credit is not given to the person who originally put forth the ideas because the person did not request the recognition based on the value of humility (p.45).

Das and Kemp (1997) developed a cultural profile for the South Asian immigrant family and then attempted to infer the mental health needs of this group. Most South Asian immigrants who have come to the United States since 1965 belong to the Westernized educated elite of their

countries and speak English fluently. South Asians try to recreate some formal and informal institutions from their countries of origin. Regional and sectarian affiliations are overcome and a larger South Asian identity emerges. Businesses and social institutions, from temples to dance academies have sprung up. These institutions provide structure and a sense of community to the immigrant population.

The desire to maintain a distinct ethnic and cultural identity is strong in the first generation. They also gradually acquire a partial American identity which allows most South Asians to function with a dual identity, or fused identity as Asian Americans. Children of South Asian immigrants are socialized into two cultures, the culture of the family and the culture of the larger American society. Most parents try to instill a sense of ethnic pride and awareness of their cultural heritage in their children. Ethnic pride and cultural awareness come with intellectual maturity and strong familial support. After migration to the United States, the responsibility of parenting is continued by the parents alone and they are highly involved in decision making for and with their children, particularly in the areas of education, career choice and marriage (Das & Kemp, 1997; Deepak, 2005).

Sadowsky, Kwan & Pannu (1995) identified cultural variables for Asian Americans that apply to South Asian Americans: non-confrontation or silence as a virtue; respect for older persons and the elderly; moderation in behaviors; devaluation of individualism; harmony between hierarchical roles; filial piety; structured family roles and relationships; humility; obedience; high regard for learning; modesty about sexuality; not demonstrative with heterosexual affection; less need for dating; strong sense of duty to family; protect honor and face of family; marrying within versus outside of ethnic group; importance attached to preserving the original religion. Second generation South Asians may experience tension

between mainstream American values and their ethnic cultural values and may find it offensive to be seen as foreigners (Das & Kemp, 1997). Ibrahim et. al., (1997) claim that each (South Asian) generation born and raised in the United States will become more acculturated.

Gloria & Hird (1999) examined the influences of ethnic and non-ethnic variables on career decision making self efficacy among college students. They found that ethnic variables accounted for a larger proportion of the variance of career decision-making self-efficacy than did non-ethnic variables and therefore were more strongly predictive of career decision self-efficacy. These authors suggest that ethnic identity development is a significant vocational task for ethnic minorities.

Gender

The studies reviewed do not distinguish between men and women of South Asian descent thus it is unclear how South Asians women are represented in various occupations. In addition, it is unclear to what extent the career paths of second generation South Asians have been chosen individually or reflect traditional versus non-traditional occupational directions for the South Asian population. Thus, the extent of career decision making self-efficacy of college women and men was targeted for examination in this study.

Malgwi, Howe & Burnaby (2005) examined the influences on students' choice of college major. While their sample was restricted to business majors, results showed that regardless of gender, interest in the subject was the most important factor for incoming freshmen. Interestingly they found that there were several gender differences in choice of major. For example, women more so than men were influenced by their aptitude in the subject, whereas men were significantly more influenced than women by occupational pay. As many as half of college students change their majors and this study found that men and women appear to be more alike in what factors influence their choice of major over time. Interestingly, high school advisors and

parents were not found to be influential in the initial choice of major. This study did not provide information on sample ethnicity so the inclusion of South Asians in this study could not be determined.

Das and Kemp (1997), claim that first generation South Asian families are typically hierarchical in terms of gender and age, with gender roles and relationships clearly defined. While the majority of marriages are arranged and the divorce rates are low, this picture is beginning to change slowly for the second generation. The desire of parents to choose mates for their children, especially daughters, leads to restriction, sometimes totally prohibiting dating and any expression of sexuality. This further complicates the lives of young people who are brought up to love and obey their parents, yet want to assimilate into mainstream American culture by dating. Gender roles are gradually becoming more equal, and children are being given a greater say in family decision making and more freedom in the choice of a career and a marriage partner (Das & Kemp, 1997). An ethnographic study on the effects of migration on first generation South Asian women in the United States by Deepak (2005), found that the first generation mothers took the opportunity to distance themselves from family and community expectations, allowing them to make more independent parenting decisions. This author found that this (freedom) resulted in dynamic relationships of these first generation mothers with their second generation daughters, providing them with support and guidance in stretching a reshaping the boundaries of South Asian womanhood.

Coogan & Chen (2007), suggest that early gender role orientation influences career choices among women. These authors explain that early socialization of girls that focus on taking care of others as a primary obligation and that career plans may somehow interfere with or superimpose on that obligation. The consequences of this socialization are that girls may limit

themselves to the types of occupations they would consider pursuing, perhaps favoring stereotypically female occupations and discounting typically male occupations. Another consequence is that girls may not place the same emphasis on pursuing a career as compared to boys. The degree to which this gender role socialization occurs among second generation South Asian women is unclear since consideration would have to be given to the mutual influence of cultural values and changing dynamics of parents (particularly mothers) with their girls.

Ibrahim et.al., (1997) proposed that gender identity of South Asians varies with generational and educational level, social class, and economic stability and suggests that it can range from extremely patriarchal to egalitarian. They contend that South Asian Americans have a high regard for hierarchy in social relationships and where a person exists in this hierarchy is mediated by education, age, and social class. These authors explained that the social construction of gender and ethnicity for South Asian women is fluid and changing, based on the maternal status of the woman given that traditionally, a woman is not equal to a man, but when she becomes a mother she gains power in the hierarchy and must be revered. The experience of marginality, and being on the 'outside' of the host culture, creates stronger bonds within family and less rigid gender identification and boundaries. Because education and the self are highly connected, it requires people to be flexible based on their social class, educational level, and circumstances in the United States. If sexist interpretations of ethnic culture are imposed, people born and raised in the United States will reject them or seek to mediate those assumptions (Ibrahim, et.al., 1997). The role of family members in helping young women develop the self-efficacy necessary to pursue careers, particularly in math and science has been identified as highly influential, along with importance of relationships with other adults such as high school counselors (Whitmarsh, Brown, Cooper, Hawkins-Rodgers & Wentworth, 2007). This may well

need to be assessed among second generation South Asian Americans since there is contradictory evidence of the influence of parents and other role models in the literature.

Lips (1992) assessed gender and science related attitudes as predictors of college students' academic choices and found that men and women in his sample differed in their intentions and behavior with respect to academic and vocational choices involving mathematics and science. Women placed more importance on people-related concerns such as combining career and family, but contrary to prediction, evidenced less concern about the difficulties faced by women in combining careers in mathematics or science with marriage or motherhood. For women, belief in the compatibility of a science career and family roles were related to intent to study more science. This study demonstrated that in general, women were underrepresented in the mathematics and science fields but their attitudes revealed that the pursuit of careers in such fields was more related to interest in those fields, rather than believing that these career fields were too difficult or not conducive to multiple family roles. Other factors listed as partial explanation of gender differences in the mathematics and sciences were: number of high-school mathematics and science courses completed; gender differences in confidence in mathematical and scientific ability; gender-related differences in enjoyment of mathematics; and differences in the amount of encouragement toward mathematics and science and non science fields young women and men receive from parents and teachers. While researchers contend that there is now an even lower representation of minority women in the mathematics and science related career fields, this study does not specifically address other groups of minority women.

According to Betz (1992), when choosing a career women may avoid career options in traditionally male-dominated career fields. Performance issues may include the effects of low self-efficacy in career decision making as well as consequent anxiety in test taking. Women and

minorities enrolled in programs traditionally dominated by Anglo men such as science and engineering may encounter little or no support for their nontraditional aspirations. Betz & Hackett (1981) investigated the relationships of occupationally related self-efficacy expectations to the nature and range of occupational alternatives perceived by undergraduate women and men, and the sex differences in self-efficacy expectations with regard to the educational requirements and job duties of traditionally female and traditionally male occupations. They found that there were significant and consistent sex differences in self-efficacy with regard to traditional and nontraditional occupations. They found greater self-efficacy among students as it related to occupations considered stereotypically traditional for females (e.g. social worker), and for males (e.g. engineer). The most significant finding of this study was the observed sex differences due to divergent perceptions of capability among men and women. Women perceived lower capability in traditionally male occupations, whereas men reported equivalent overall self-efficacy with regard to both traditional and nontraditional occupations.

In a follow-up study, Lent and Hackett (1987), found that the findings still held true, regarding women and career decision-making self-efficacy. Beliefs about self-efficacy serve as a potent internal barrier to women's career choices and achievements. With respect to women's career development, self-efficacy theory may also serve as a mechanism through which socialization experiences affect the career behavior of minority women. Role models are identified in the social science literature as such a mechanism, having an impact on women's career decision making. Through their lives and activities, role models influence another person in some way and individuals tend to seek role models that are similar to them in some way, such as gender or race. A lack of female role models in nontraditional careers has been identified as a barrier for women who choose to enter those professions. Quimby & DeSantis (2006)

investigated the influence of role models on women's career development and found that role model influence added to the prediction of career choice over and above the contribution of self-efficacy among women. Thus, exposure to role models in nontraditional occupations may be increasingly valuable to young women wanting to enter those careers in which women are underrepresented. Role model influence among second generation South Asian women is unknown. These role models may exist within South Asian communities or immediate family but the extent to which those relationships exist has yet to be investigated.

The labor market in the United States has, until recently, been gender segregated. While there has been a crossing of those boundaries with men and women making nontraditional career choices, the wealth of research has focused on the increasing number of women making those decisions (Lease, 2003; Whitmarsh et al., 2007). Increasing numbers of women are choosing to enter traditionally male dominated career fields and this has been regarded as a positive movement that works toward narrowing the gender gap in the world of work offering opportunities for increased pay, status and advancement. The choice of nontraditional career choices for men, in typically female dominated occupations does not generally have the same positive perception (Lease, 2003).

Dodson and Borders (2006), examined gender role attitudes, gender role conflict and job satisfaction among men in traditional and nontraditional male careers (mechanical engineers and elementary school counselors, respectively). These researchers contend that few studies have been conducted that study men who enter female dominated careers, despite the increasingly gender balanced labor market. They found that mechanical engineers reported more traditional choices, attitudes and beliefs than did the elementary school counselors. Further, the elementary school counselors were willing to sacrifice traditional male-dominated career choices for greater

prestige in a nontraditional career field. They also found that the engineers expressed stronger antifemininity beliefs (eg. men should not do anything that might appear feminine) than did school counselors. The engineers also reported greater toughness and more experiences of conflict regarding success and expression of emotions, as well as balancing family and work life, than did the school counselors. The authors concluded that the engineers expressed a measure of cost in their lives related to adherence to traditional male gender role expectations. The degree to which second generation South Asian men adhere to traditional male occupations has not been measured but one may expect that based on the high priority and value of education, there may be a closer adherence to stereotypical male occupations for this group.

Lease (2003), conducted a study that tested a model of men's nontraditional occupational choices among 354 male college students. She found that more liberal social attitudes among male college students predicted nontraditional career intentions. These attitudes allow men more role flexibility in choosing occupations that may not be considered typical and appropriate for men. These men did not consider the goals of family and career to be in conflict and contrary to the author's expectations; the influence of societal role models assessed by traditional female occupations of their mothers did not have a significant influence over their sons' choices for nontraditional male careers. However, mothers that were in nontraditional careers had were more likely to have sons with more liberal attitudes about nontraditional careers. The ethnicity of the study sample was not provided and so the degree to which these findings can be generalized to second generation South Asian men is unknown.

Androgynous Gender Role Identity

According to Bem (1981), masculinity and femininity have been conceptualized as the opposite ends of a single gender dimension. Psychological androgyny refers to the integration of femininity and masculinity within an individual, male or female. The idea of psychological

androgyny suggests that it is possible for an individual to be both feminine and masculine (for example, compassionate and assertive) and use these complimentary modalities simultaneously in a given situation, such as firing an employee. To test the moderating environmental influences on children's gender stereotyping, Bigler (1985), examined the effects of the functional use of gender in the classroom. She found that the use of gender dichotomies in the test classroom increased children's gender stereotyping. Children in the 'gender' classroom showed greater stereotyping of occupations compared with the control group. Children in the gender groups were more likely than those in the control group to rate occupations as 'only men' and 'only women'.

A study conducted by Portman (2001), examined gender role attributions of American-Indian women. Results of this study, using a sample of 505 American-Indian women found that women scored higher on the masculine subscale compared with White female counterparts. They also scored high on the femininity subscale. The importance of this study is that it provides evidence that individuals may engage in psychological androgyny, implying that it is possible for a person to engage both stereotypical 'feminine' and stereotypical 'masculine' characteristics as the situation demands. For example, it is possible for an individual to be compassionate and assertive, tender or aggressive (Bem, 1981). Millard, Habler & List (1984), examined the relationship of sex-role orientation to career indecision in 109 college students. They found that androgynous individuals experienced less career indecision than feminine or masculine groups. The Portman (2001) study indicated that psychological androgyny is associated with healthier mental health functioning and better health practices than feminine or masculine trait dominance.

Ozkan and Lajunen (2005), examined masculinity and femininity among college students in Turkey. Using a sample 280 men and 256 women, they found that men and women showed no

statistical difference on masculine traits while both men and women scored higher on feminine traits. For example, 'aggressiveness' is undesirable for both sexes and traits such as 'affectionate' and 'sympathetic' are desirable for both Turkish men and women. This study further illustrated the idea that psychological androgyny implies resilience and flexibility of traits and that this preference may exist across cultures. These authors contend that changing gender roles for women have been influenced by greater urbanization, increased numbers of women at universities and expanded career opportunities which have in turn challenged more traditional notions of gender roles. Modern Turkish women are expected to be more adaptable and flexible in work and personal environments. This contrasts with the findings of previous studies regarding gender role identity. There appears to be greater discussion in the recent social science literature that men and women with a higher number of both masculine and feminine traits report better psychological adjustment because they are more adaptable to changing life situations.

These studies have indicated that androgyny is associated with better mental health and lower gender typing of occupations. Hence, it is possible that the greater the androgynous characteristics in an individual, the greater self-efficacy he or she may possess in exploring career options, including nontraditional occupations, and overall career decision making. There are no known studies that have examined the influence of psychological androgyny among South Asian Americans.

Self-Efficacy Theory

One theoretical framework used to look at career decision self-efficacy is Bandura's work on behavior change. Bandura (1982) claimed that behavior change and decisions made are mediated by expectations of self-efficacy: expectations of beliefs that one can perform a given behavior. His theory postulates that the level and strength of self-efficacy will determine (1) whether or not a coping behavior will be initiated, (2) how much effort will result, and (3) how

long the effort will be sustained in the face of obstacles. This model proposes four principal sources from which expectations of self-efficacy are derived: performance accomplishments, vicarious (observational learning) experience, verbal persuasion (encouragement), and emotional arousal (negative anxiety related to performance abilities). In other studies, self-efficacy was found to be related to mathematics performance, career entry behaviors such as choice of college major and academic performance, and to gender differences pertinent to a variety of career behaviors. Bandura also found that the higher the level of induced self-efficacy, the higher the performance accomplishments and the lower the emotional arousal. Bandura also distinguished between outcome expectancy and efficacy expectancy. Outcome expectancy refers to the person's estimate that a given behavior will lead to particular outcomes. An efficacy expectation is an estimate that one can successfully execute the behavior required to produce the outcomes sought. (Bandura, 1982; Betz, 1992; Herr & Cramer, 1996; Sullivan & Mahalik, 2000).

Hackett and Betz (1981) were the first to propose that self-efficacy might be an important variable to include in models of career development, influencing the achievement behavior, academic and career decisions, and career adjustment of both men and women. They extended the theory of self-efficacy to the career domain and provided an outline for how personal efficacy may develop differently in men and women due to gender-role socialization, and differential access to the four sources of efficacy information (Lent & Hackett, 1987).

Sullivan & Mahalik's (2000) study on increasing career self-efficacy for women, evaluated a group intervention. They evaluated whether women who participated in the group that was designed to enhance career self efficacy would increase career decision self-efficacy and vocational exploration and commitment compared to a control group. Compared with the control group, their results indicated that women in the treatment group improved on career

decision-making self efficacy and vocational exploration and commitment and that this gain was sustained at the six-week follow up. One important aspect of this study was that it addressed the impact of gender role socialization in women's career decision self-efficacy. In addition the findings highlight the importance of incorporating contextual factors such as gender socialization issues into the career counseling process. As noted earlier, gender roles are typically clearly set within South Asian culture, and thus are a vital contextual factor when assessing the career development concerns of South Asians.

Social Cognitive Career Theory

Albert and Luzzo (1999) described social cognitive career theory (SCCT), an extension of Bandura's social cognitive theory as a framework for conceptualizing career development. Social cognitive career theory recognizes that there are mutual interacting influences between people, their behavior, and their environment. Bandura (1982) termed this interaction *triadic reciprocity*, in which personal attributes, such as internal cognitive and affective states, physical attributes, external environmental factors, and overt behaviors or actions, all operate interactively and affect one another bidirectionally. Social cognitive career theory attempts to explain the development of career and academic interests, the career choice process, and performance outcomes. In addition, this SCCT proposes that goals are a central component in the career process. Goals are defined as the determination to engage in a particular behavior or activity or to affect a particular future outcome. By setting goals, individuals organize and guide their behavior. SCCT suggests that there is a complex interplay among self-efficacy, outcome expectations, and goal setting.

This theory also proposes that contextual factors are responsible for shaping the experiences that lead to career interests and choices. In SCCT, contextual factors may relate to perceived barriers in career decision making, such that even if individuals possess high levels of

self-efficacy, high outcome expectations, and interests congruent with those expectations, they may still avoid choosing a particular career if they perceive insurmountable barriers to career entry or career goal attainment. Perceived barriers that may include economic needs, educational limitations, lack of familial support, gender and ethnic discrimination and may inhibit the pursuit of a preferred career goal. This may occur among minorities who realize that there are few representatives in a certain career field from their own ethnic group (Albert & Luzzo, 1999).

Summary

A review of the relevant literature indicated that evidence based research on the career decision making processes of South Asians is lacking and that existing social science research fails to distinguish between Asian subgroups living in the United States. This review of literature suggested that processes of acculturation, ethnic identity and gender role identity formation are fluid and ongoing for second generation South Asians in the U.S. as these individuals mediate the influence of two cultures (South Asian and Euro-American) in career decision making.

Thus, the purpose of this study was to investigate career decision self-efficacy among second generation South Asian college students by examining the impact of acculturation, androgynous gender role identity, perceived parental support, gender, and student grade point average on students' career self-efficacy.

CHAPTER 3 METHODOLOGY

In this study the influence of five variables on the level of career decision self efficacy of second generation South Asian college students was examined. The five variables were: (1) level of acculturation, (2) androgynous gender role identity, (3) perceived parental support in career decision making, (4) gender, and (5) student grade point average. A cross-sectional survey research design was used in this study. In this chapter the research hypotheses, research design and relevant variables, data analysis, population, sample, and data collection procedures are described. Additionally, the study instrumentation and methodology are discussed.

Delineation of Relevant Variables

This study investigated the relationships among six variables. Each variable is described here. A more detailed presentation of the instruments used to measure each of these variables is found in the instrumentation section.

Career Decision Self Efficacy (CDSE)

CDSE refers to an individuals' belief or confidence that he or she can successfully complete the tasks necessary to making career decisions (Taylor & Betz, 1983). Sources of self-efficacy are thought to come from one's family of origin as well as variables including gender, ethnicity, socioeconomic status, and available educational opportunities (Betz, 2004). CDSE was the dependent variable in this study and was measured for second generation South Asian college students using the Career Decision Self Efficacy Scale, SF (short form).

Acculturation

Acculturation is a process that occurs when two or more cultures interact. Outcomes of this process include assimilation (the individual adopts the cultural attitudes, values and behaviors of the dominant culture); resistance to assimilation where the individual rejects the

host culture and retains only and identity with his or culture of origin; or biculturalism in which the individual adopts characteristics of both the dominant culture and culture of origin (Suinn, Khoo & Ahuna, 1995). In this study the level of acculturation for second generation South Asian college students in the United States was measured using the Suinn-Lew Self-Identity Acculturation Scale (SL-ASIA).

Androgynous Gender Role Identity

Androgyny is described by Bem (1978), as those whose personalities embrace both ‘feminine’ and ‘masculine’ traits. Masculinity and femininity are considered separate concepts rather than extremes of a single bipolar dimension. Thus, both men and women may have scores on both dimensions. According to Abu-Ali (1999) gender role identity is acquired through exposure to societal expectations and beliefs about behaviors and characteristics appropriate for males and females (p. 185). Abdalla (1995) reports that gender role identity is associated with career decision making self efficacy with the androgynous (having both male and female) gender role identity related to higher scores in CDMSE as compared to either the traditionally masculine or traditionally feminine gender role identities. Gender-role identity was assessed using the Bem Sex-Role Inventory – short form (Bem, 1981).

Perceived Parental Support

In the development of the Career-Related Parent Support Scale by Turner et. al., (2003), the authors postulated that parental support in educational and career decision making is strongly related to self-efficacy in adolescents. The role of parents is a critical factor in influencing CDSE among young adults since they have the capacity to influence their child’s’ perception of being academically and vocationally competent, thus having a positive impact on adolescent career development (Turner & Lapan, 2002). The Career Related Parent Support Scale was used to

investigate the contribution of parental support perceived by second generation South Asian college students to their career decision self efficacy.

Gender and Student GPA

The participants' gender and overall GPA was assessed from the demographic questionnaire, reported by student participants.

Population and Sample

South Asians have been described in the literature as individuals from India, Pakistan, Bangladesh, Sri Lanka, Nepal, and Bhutan. Second generation South Asians are defined as those who were either born in the United States or who came to the U.S before the age of twelve (Inman & Nath, 2002). The population for this study was second generation South Asians. A convenience sample for this study was drawn from this population of second generation South Asians.

Sampling Procedures

The sample of participants selected for this study was comprised of college students currently attending tier one, 4-year, research universities in the southeastern United States, in three states. Participants were considered eligible for this study if they met these four criteria: 1) enrolled at a 4-year, tier one research university, 2) between the ages of 18-24, 3) of South Asian descent and 4) were second generation South Asians.

To recruit students to participate in the study, the primary investigator contacted student participants via direct email using university student directories. University student directories were accessed since the Universities did not have a South Asian designation available in the breakdown of ethnicities represented in their student populations. Eleven hundred South Asian college students were identified by name on student directories, as well as through student cultural groups at those Universities and the faculty advisors for South Asian campus student

organizations. Each student and faculty member was sent an email inviting participation in this study three times over the course of six weeks. Participants and faculty members were asked to forward the study invitation to other South Asian students at their Universities, representing a snowball sampling method. Participation in the study was completely voluntary. Two hundred and four students participated in the survey and after eliminating responses that were not complete or did not meet the criteria for participation, the final sample number was 138. This represents a low response rate of only 12.5%. There was no compensation for participating in this study.

Subjects

The sample consisted of 138 college students who met the criteria for inclusion in the study. Forty three percent of the sample were male (n=59), and 57% were female (n=79). All participants attended large 4-year research universities in the southeast and were within the target age range of 18-24 yrs old. All participants met the criteria for second generation South Asian, those students born in the United States or immigrated before the age of twelve (Inman & Nath, 2000). The distribution for countries of birth of participants is shown in Table 3-1

Table 3-1. Country of Birth

Country of Birth	Frequency	Percent
United States	83	60.1
India	33	23.9
Sri Lanka	12	8.7
Pakistan	7	5.1
Bangladesh	2	1.4
Nepal	1	0.7
Total	138	100

Eighty-two percent of student GPA's were 3.0 or higher. Student participants represented a cross section of year in college: 23% freshmen, 20% sophomores, 26% juniors, 17% seniors and 13% graduate students. Only 6% of participants were undecided about choosing a major.

83% of the participants reported that their mothers had a college education, while 93% reported that their fathers had a college education. Participants reported choice of major and Table 3-2 shows the choice of major by gender.

Table 3-2. Choice of major by gender

Major	Gender		Total
	Male	Female	
Agricultural Sciences	0	2	2
Building Construction	2	0	2
Business	14	8	22
Education	0	2	2
Engineering	9	4	13
Journalism	1	3	4
Law	1	1	2
Liberal arts and sciences	20	32	52
Medical sciences	2	7	9
Pharmacy	4	6	10
Health Professions	1	6	7
Not stated	5	8	13
	59	79	138

Data Collection Procedures

Approval of this study by the Institutional Review Board (IRB) at the University of Florida was obtained before collecting data. This researcher contacted potential participants via direct email using online student directories. Students were then asked to voluntarily participate in the study made available online by explaining the purpose of the study and requesting their participation. The study was described as an investigation to better understand how young adult second generation South Asians make decisions about career. In compliance with IRB protocol, participants were informed of any potential risks and benefits as a result of participation. Finally, the participants were given the contact information for the primary investigator and encouraged to contact her should they have any questions or concerns that should arise from participation in this study. To ensure anonymity the participants were informed of and given printed information

about confidentiality. They were informed that there would be no identifying information on any of the surveys and demographic questionnaire.

The survey packet was available for web-based administration. Each participant received an email explaining the study and inviting participation. They were provided with the URL for the online survey packet and asked to complete it privately.

Instrumentation

A set of five self-report instruments distributed to study participants comprised the survey. Three of the instruments (i.e., Career Decision Self-Efficacy Scale-SF, the Suinn-Lew Asian Self-Identity Acculturation Scale, and the Bem Sex-Role inventory) assessed the participants' perception of self with respect to confidence about career decision making and level of adjustment with respect to culture and gender role identity. The fourth instrument, the Career-Related Parent Support Scale assessed the participants' perception of parental support in career decision making. The fifth instrument, a researcher constructed questionnaire, obtained individual demographic data.

Career Decision Self-Efficacy Scale - Short Form (CDSE-SF)

The Career Decision Making Self Efficacy Scale – Short Form (CDSE-SF) is a tool for measuring a person's degree of confidence that he or she can successfully complete the tasks necessary for making career choices. This instrument was developed for group administration to college students and is based on Bandura's theoretical notions of self-efficacy (Betz & Taylor, 1983). Low career decision self-efficacy expectations are hypothesized to lead to an avoidance of tasks and behaviors needed to make quality career decisions, whereas high self-efficacy expectations lead to an increase in the frequency of behaviors that are necessary for quality career decision making (Luzzo, 1993).

The CDMSE-SF consists of 25 items. The response to each item is based on the participants' preconceived belief (confidence) that he or she can accomplish each task. A five-point Likert-type scale measures responses that range from 'no confidence' (1 point) to 'complete confidence' (5 points). A single score is computed from the 25 responses. Higher scores indicate higher career decision self efficacy. Sample items include, "Figure out what you are and are not willing to sacrifice to achieve your career goals", and, "Make a plan of goals for the next five years."

Internal consistency reliability was estimated with coefficient alpha on the five subscales of the CDESES. The reliability values for the 5 –level response continuum in self-appraisal, occupational information, goal selection, planning, and problem solving were .88, .89, .87, .89, and .86 respectively. Total reliability for the 25-item survey is .94 (Betz, Klein & Taylor, 1996). Additional research has provided evidence that the 25-item short form is nearly as reliable and as valid as the longer CDESES of 50 items. (Betz et. al., 1996). While the instrument demonstrates respectable evidence of reliability these authors caution researchers to continually assess its applicability to populations other than college students.

Suinn-Lew Self-Identity Acculturation Scale (SL-ASIA)

The SL-ASIA is one of the most frequently referenced assessment tools for measuring acculturation in Asian Americans in the counseling literature. This instrument consists of 21 multiple choice items. A score is obtained by calculating the sum of all scores and dividing by 21. The resulting score can range from 1.00 (low acculturation) to 5.00 (high acculturation). Low scores are reflective of high Asian identification and high scores are reflective of high Western identification. A score of 3.00 would indicate that an individual is bicultural, adopting characteristics of both the dominant Euro-American culture and their own Asian culture (Suinn, Ahuna & Khoo, 1992). Sample items are:

What language can you speak?

1. Asian only (for example Chinese, Korean etc.)
2. Mostly Asian, some English
3. Asian and English equally well (bilingual)
4. Mostly English, some Asian
5. Only English

How would you rate yourself?

1. Very Asian
2. Mostly Asian
3. Bicultural
4. Mostly Westernized
5. Very Westernized

The SL-ASIA has a satisfactory level of internal consistency across mainstream Asian American college groups in that researchers in nine studies have reported an internal consistency range of .68 to .91 (Ponterrotto, Baluch & Carelli, 1998). However, the instrument has not been normed specifically on South Asian populations. In the original development of the instrument, limited evidence was provided on the scale reliability and validity. Hence the original published scale has no numerical values to indicate reliability and validity. Subsequent evaluations of the instrument in more than twenty studies have revealed internal consistency ranging from .72 to .91 (Ponterrotto et al., 1998; Johnson, Wall, Guanipa, Terry-Guyer & Velasquez, 2002). While these figures are respectable, the authors suggest caution in generalizing to all Asian American groups.

There is some evidence of the SL-ASIA criterion related validity regarding counseling process variables such as attitudes toward counseling and willingness to see a counselor serve as the variables. For example, higher scores represent greater acculturation to mainstream American culture and thus increased willingness to engage in counseling. Regarding construct validity, correlations in predicted directions with measures such as self-identification and length of time living in the U.S., yield strong support (Ponterrotto et al., 1998).

Bem Sex-Role Inventory – Short Form (BSRI-SF)

Bem (1981) proposed that masculinity and femininity are two independent dimensions rather than two ends of a single dimension. Thus, a person can indicate whether he or she is 'high' on both dimensions (androgynous), 'low' on both dimensions (undifferentiated), or high on one but low on the other (either feminine or masculine).

The BSRI short form consists of 30 items, 10 of which are 'masculine' items (for example: independent, acts as a leader, assertive), 10 'feminine' items (for example: gentle, loyal, affectionate) and 10 'neutral' items (for example: happy, adaptable, jealous). The participant is required to rate him or her self on a seven point scale, from 'never' or 'almost never' true to 'always' or 'almost always' true (Maznah & Fong, 1986). Scores are calculated for both the feminine and masculine scales and the difference computed (femininity score – masculinity score) using a - or + . High scores in either direction indicate a tendency to be strongly gender-typed. Positive scores indicate femininity and negative scores indicate masculinity. The traditionally gender-typed person would be motivated to keep his or her behaviors consistent with idealized images of femininity or masculinity regarding career decision making and other behaviors (Bem, 1981).

Using the BSRI, Abdalla (1995) investigated the gender role concepts and career decision making self-efficacy of Arab college students and reported findings that support the construct validity of the scales with alpha scores of .82 for masculinity and .87 for femininity. Abu-Ali (1999), reported an internal consistency of the BSRI of .86 and .80 for masculine and feminine scales respectively. This author claims similar consistency when the scales are used with diverse ethnic groups.

The Career-Related Parent Support Scale (CRPSS)

The CRPSS is a self-report inventory designed to assess the participant's perceptions of the ways their parents provide support in their career decision making. In the development of this scale the authors, Turner, Allman-Brissett, Lapan, Udipi & Ergun (2003) proposed that parental support of adolescents' educational and vocational development is related to their offspring's self-efficacy and outcome expectations when engaging in appropriate vocational and educational tasks.

The test is comprised 27 items representing four scales that correspond to Bandura's four sources of self-efficacy expectations: performance accomplishments, vicarious learning, social persuasion and emotional arousal. Participants rate each item on a 5 point Likert scale from 1 (strongly disagree) to 5 (strongly agree):

Scale 1 (7 items) Instrumental Assistance (support of adolescents' career related skill development), for example, "My parents teach me things that I will someday be able to use at my job"

Scale 2 (7 items) Career-Related Modeling (parents' provision of career related modeling behavior), for example, "My parents have taken me to their work."

Scale 3 (6 items) Verbal Encouragement (parents' praise and encouragement associated with their adolescents' educational and career development), for example, "My parents expect me to finish school."

Scale 4 (7 items) Emotional support (parents' support of the affect experienced by their adolescents with respect to their educational and career development), for example, "My parents talk to me when I am worried about my future career."

Descriptive statistics were computed for each scale and a total score calculated for the entire instrument. Results for the scale development showed internal consistency estimates for

the scores across the four CRPSS subscales range from .78 to .85., while the internal consistency estimate for the entire scale was .79.

Demographic Questionnaire

The demographic questionnaire was designed to collect data on individual characteristics of participants: age, gender, current standing in college (freshman, sophomore, junior or senior), country of origin/ancestry/birth, number of years in the United States (to assess whether the individual meets criteria for second generation South Asian) and GPA.

Hypotheses

The following null hypotheses were evaluated in this study:

- H₀ (1): There is no contribution of the variables (i.e., level of acculturation, androgynous gender role identity, perceived parental support, gender or GPA) to the prediction of the level of career decision making self efficacy in second generation South Asian college students.
- H₀ (2): There is no significant association between the level of career decision self efficacy and gender role identity reported by second generation South Asian college students.
- H₀ (3): There is no significant association between the level of career decision self efficacy and perceived parental support in career decision making reported by second generation South Asian college students.
- H₀ (4): There is no significant association between the level of career decision self efficacy and gender in second generation South Asian college students.
- H₀ (5): There is no significant association between the level of career decision self efficacy and GPA reported by second generation South Asian college students.
- H₀ (6): There is no significant association between the level of career decision self efficacy and level of acculturation reported by second generation South Asian college students.

CHAPTER 4 RESULTS

The purpose of this study was to investigate the career decision self-efficacy of second generation South Asian college students. The influence of five variables on student career decision-making self-efficacy was examined. The five variables were: 1) level of acculturation, 2) gender-role identity, 3) perceived parental support in career decision making, 4) gender and, 5) student GPA.

The sample for this study included 138 second generation South Asian college students between the ages of 18 and 24 years old. Participants were enrolled at large 4 year universities in the southeastern United States. Specifically, career decision self efficacy was assessed by the Career Decision Self-Efficacy Scale (CDSE-SF). The degree of acculturation of second generation South Asian college students for this study was measured using the Suinn-Lew Acculturation Scale (SL-ASIA). The Bem Sex-Role Inventory (BSRI) was used to assess gender role identity, and the Career Related Parent Support Scale (CRPSS) was used to measure the contribution of parental support perceived by participants to their career decision self-efficacy. A demographics questionnaire was used to collect data on year in college and GPA of student participants.

Data Analysis Procedures

Descriptive statistics were computed for the dependent variable, CDSE as well as for each of the five predictor variables (i.e., level of acculturation, level of gender role identity, perceived parental support, gender and GPA). These descriptive statistics are summarized in Table 4-1.

Table 4-1. Descriptive statistics of sample on each measure

	N	Mean	S.D.	Minimum	Maximum
Total CDSE	138	95.47	16.65	35.00	125.00
SL-ASIA	138	3.21	0.54	1.71	4.86
Sum CRPSS	138	100.12	19.94	53.00	135.00
BSRI T-score	138	51.62	10.42	17.00	82.00
GPA	138	4.07	0.86	1.00	5.00

Career decision self-efficacy as measured by the Career Decision Self Efficacy Scale was designated as the dependent variable while level of acculturation (SL-ASIA), perceived parental support (CRPSS), gender role identity (BSRI), gender and GPA were the predictor variables.

Career Decision Self-Efficacy (CDSE) Scale

The mean sum score for CDSE for this sample was 95.47 with a range of 35 to 125. Higher scores represent higher levels of career decision making self efficacy. The mean score for participants on the five point likert scale with 1 = no confidence and 5 = complete confidence was determined by dividing the mean sum score by 25. Thus the mean score for this sample was 3.81 indicative an overall confidence level in the moderate to much confidence range. A standard deviation of 16.65 indicates a normal distribution of the scores for this sample.

The Suinn-Lew Asian Self Identity Acculturation (SL-ASIA) Scale

On the SL-ASIA , scores can range from 1.00 (low acculturation) to 5.00 (high acculturation). Lower scores are reflective of high South Asian identification while higher scores are reflective of high Western identification. A score of 3.00 is reflective of a ‘bicultural’ disposition. The mean SL-ASIA score in this study was 3.21 with a range of 1.71 to 4.86. The mean score and standard deviation of 0.54 indicate a grouping of acculturation scores around the mean, or the bicultural range of this instrument.

Career Related Parent Support Scale (CRPSS)

The CRPSS assessed the participants' perception of career related parental support. The mean sum score was 100.12 with a range of 35 to 135. Higher scores represent greater perceived parental support in career decision making. The standard deviation of 19.94 reflects a normal distribution of scores for this instrument.

Bem Sex Role Inventory (BSRI)

The BSRI assessed participants' level of attunement to cultural definitions of gender appropriate behavior and the use of those definitions as the ideal standard against which his or her own behavior is evaluated, including making decisions about career. The mean T-score on the BSRI was 51.62 with a standard deviation of 10.64.

Grade Point Average

Student participants indicated their current GPA by choosing one of five categories: below 2.0, 2.1-2.4, 2.5-2.9, 3.0-3.5, 3.6-4.0. The distribution of student grade point averages are shown in Table 4.2.

Table 4-2. Distribution of student grade point averages

	Frequency	Percent
Below 2.0	1	0.7
2.1-2.4	8	5.8
2.5-2.9	16	11.6
3.0-3.5	69	50.0
3.6-4.0	44	31.9
Total	138	100.0

A correlation matrix was generated to present all the possible combinations of correlations among the independent and dependent variables. The Pearson product-moment coefficient (r) was calculated for each pair of the six independent and dependent variables. The correlation coefficient (r) measures the nature and degree of relationship between two variables. The relationship between two variables may be positive, negative or non-existent. A positive

correlation indicates a direct relationship between two variables where high (or low) scores on one variable related to high (or low) scores in a second variable. A negative correlation indicates an inverse relationship between two variables where low scores on one variable relate to high scores on the second variable, or vice-versa. The magnitude of the relationship between two variables in a correlation matrix is designated by a number between +1 and -1 (Creswell, 2005; Boney, 2002).

A step wise multiple regression analysis was performed to determine the proportion of variance in the dependent variable (i.e., CDSE) that could be accounted for by the set of predictor variables. In addition, regression analysis was generated to calculate the proportion of variance in the dependent variable that was accounted for by each of the independent variables when the effects of all other predictor variables were held constant. This allowed an assessment of the effects of each variable while controlling for others (Creswell, 2005; Boney, 2002).

Analysis Results

The goal of the correlation matrix was to assess the relationships between the dependent and independent variables: CDSE, SL-ASIA, CRPSS, BSRI, gender and GPA. Table 4.3 shows the results of this analysis.

Table 4-3. Intercorrelations between independent and dependent variables

Variable	1	2	3	4	5	6
1. CDSE	1.00					
2. SLASIA	-.08	1.00				
3. CRPSS	.28*	-.08	1.00			
4. BSRI	-.07	-.09	-.00	1.00		
5. Gender	-.04	.04	-.16*	-.15	1.00	
6. GPA	.19*	-.03	-.09	-.08	-.05	1.00

N=138, *p<.05 (two-tailed)

NOTE: CDSE = career decision self-efficacy; SLASIA = acculturation; CRPSS = career related parent support; BSRI = gender role identity; GPA = grade point average.

There was a positive correlation between career related parental support and career decision self-efficacy ($r = .28$). Therefore, as perceived career related parental support increases, CDSE increases. There was a positive correlation between GPA and career decision self-efficacy ($r = .19$). Therefore as GPA increases, career decision self-efficacy increases. The remaining pairs in the correlation matrix indicated only slight negative relationships that did not reach significance.

A regression model was developed to determine what, if any, relationship existed between the set of independent variables and the dependent variable, career decision self-efficacy. This analysis can be conducted by evaluating the entire model, or by conducting an analysis for each individual variable when the effects for all the other variables are held constant. Career decision self-efficacy was designated as the dependent variable in this model. The independent variables included level of acculturation, perceived parental support, gender role identity, gender and student GPA.

The regression coefficient (R^2) provides information regarding the overall amount of variance explained in a dependent variable by all independent variables. It also shows the regression weight – the amount of contribution of each variable while controlling for the variance of all other variables, called beta, for each variable. A beta weight is a coefficient indicating the magnitude of prediction for a variable after removing the effects of all other predictors. The beta value indicates the direction of the relationship between the dependent variable and each independent variable. A positive coefficient indicates that an increase in the independent variable results in an increase in the dependent variable. A negative coefficient indicates that that an increase in the independent variable results in a decrease in the dependent variable. The absolute value of the regression coefficient provides information regarding the

degree to which a change in the independent variable affects a change in the dependent variable.

Evidence regarding the strength and direction of the relationship between the independent variables and the dependent variable is provided in Table 4.4.

Table 4-4. Source Table for regression model with CDMSE as the dependent variable

Source	Standardized Coefficients		95% Confidence Interval for B		
	(Beta)	t-value	p-value	Lower Bound	Upper Bound
SL-ASIA	-0.058	-0.714	0.477	-6.858	3.221
CRPSS	0.294	3.539	0.001	0.108	0.383
BSRI	-0.052	-.0.622	0.535	-0.344	0.180
Gender	0.011	0.134	0.894	-5.165	5.915
GPA	0.213	2.592	0.011	0.981	7.304

N=138

The results in Table 3 indicate that based on the standardized coefficients, CRPSS has the greatest influence on CDSE followed by GPA. None of the remaining independent variables in the model were found to have significant direct effect on the dependent variable, CDSE.

Evidence regarding the strength and direction of the relationship between an independent variable and the dependent variable is provided by examination of the regression coefficients (R^2). The results in Table 3 indicate that the level of career decision self-efficacy measured by the CDSE scale was significantly affected by two of the variables: career related parent support and GPA. The relationship between CDSE and career related parental support (CRPSS) was found to be positive in direction. Similarly, the relationship between CDSE and student GPA was found to be positive in direction. In other words, an increase in perceived parental support resulted in a higher reported score in CDSE. Similarly, as GPA increased, this was associated with a higher reported CDSE score.

Examination of the t-values in Table 3 provides evidence that the relationship between career related parental support and CDSE ($t = 3.539$), is stronger in magnitude than the association between GPA and CDSE ($t = 2.592$). The remaining independent variables: Level of

acculturation, gender role identity and gender were not found to have any significant relationship with reported CDSE. With a calculated R^2 of .13, this model accounts for 13% of the variance in career decision self-efficacy reported. Controlling for other variables in the model, males were predicted to have a 0.375 higher CDSE score relative to females.

Hypothesis Testing

Six hypotheses were evaluated to test the theoretical assumptions of this research. A multiple regression model was developed and tested for statistical significance. The results for each hypothesis are described in the following paragraphs and summarized in Table 4.

Hypothesis 1 stated that there is no contribution of the variables (i.e., level of acculturation, androgynous gender role identity, perceived parental support, gender and GPA) to the prediction of the level of career decision self efficacy in second generation South Asian college students. The results of the regression model demonstrated a statistically significant contribution of perceived parental support and reported student GPA on career decision self-efficacy of second generation South Asian college students. Therefore, statistical evidence existed to reject the null hypothesis.

Hypothesis 2 stated that there is no significant association between the level of career decision self efficacy and gender role identity reported by second generation South Asian college students. The results of the regression analysis did not demonstrate a statistically significant association between gender role identity and career decision self efficacy among second generation South Asian college students. Therefore, no statistical evidence existed to reject the null hypothesis.

Hypothesis 3 stated that there is no significant association between the level of career decision making self efficacy and perceived parental support in career decision making reported by second generation South Asian college students. The results of the regression analysis

demonstrated a statistically significant association between perceived career related parental support and career decision self-efficacy among second generation South Asian college students. Therefore, statistical evidence existed to reject the null hypothesis.

Hypothesis 4 stated that there is no significant association between the level of career decision self efficacy and gender in second generation South Asian college students. The results of the regression analysis did not demonstrate a statistically significant association between gender and career decision self efficacy among second generation South Asian college students. Therefore, no statistical evidence existed to reject the null hypothesis.

Hypothesis 5 stated that there is no significant association between the level of career decision self efficacy and GPA reported by second generation South Asian college students. The results of the regression analysis demonstrated a statistically significant association between GPA and career decision self-efficacy among second generation South Asian college students. Therefore, statistical evidence existed to reject the null hypothesis.

Hypothesis 6 stated that there is no significant association between the level of career decision self-efficacy and level of acculturation reported by second generation South Asian college students. The results of the regression analysis did not demonstrate a statistically significant association between level of acculturation and career decision self efficacy among second generation South Asian college students. Therefore, no statistical evidence existed to reject the null hypothesis. The results of hypothesis testing are shown in Table 4-5

Table 4-5. Results of hypothesis testing

Number	Hypothesis	Decision
H _o (1):	There is no contribution of the variables (i.e., level of acculturation, androgynous gender role identity, perceived parental support, gender or GPA) to the prediction of the level of career decision self efficacy in second generation South Asian college students.	Reject
H _o (2):	There is no significant association between the level of career decision self efficacy and gender role identity reported by second generation South Asian college students.	Fail to Reject
H _o (3):	There is no significant association between the level of career decision self efficacy and perceived parental support in career decision making reported by second generation South Asian college students.	Reject
H _o (4):	There is no significant association between the level of career decision self efficacy and gender in second generation South Asian college students.	Fail to Reject
H _o (5):	There is no significant association between the level of career decision self efficacy and GPA reported by second generation South Asian college students.	Reject
H _o (6):	There is no significant association between the level of career decision self-efficacy and level of acculturation reported by second generation South Asian college students.	Fail to Reject

CHAPTER 5 DISCUSSION

The purpose of this study was to assess the influences of five variables on the level of career decision self-efficacy in second generation South Asian college students. The five variables examined were: 1) level of acculturation, 2) perceived parental support 3) androgynous gender role identity, 4) gender and 5) student GPA. A total of 138 college students from large research universities in the southeastern United States participated in this study. The study sample consisted of 59 males (43%) and 79 females (57%). All participants met the criteria for second generation South Asian. Participants represented birth countries of the United States (60.1%), India (23.9%), Pakistan (5.1%), Sri Lanka (8.7%), Bangladesh (1.4%) and Nepal (0.7%). Participants ranged in age from 18 to 24 in compliance with the criteria for this study. Eighty two percent of student GPA's were 3.0 or higher. Student participants represented a cross section of year in college: 23% freshmen, 20% sophomores, 26% juniors, 17% seniors and 13% graduate students. Only 6% of participants were undecided about choosing a major. The distribution of college majors by gender reflect women in traditional (education) and nontraditional majors (law, medicine, pharmacy and engineering). The distribution of men and choice of major reflect traditional male career choices (engineering, business and sciences). Eighty three percent of the participants reported that their mothers had a college education, while 93% reported that their fathers had a college education.

Career Decision Self-Efficacy

The mean sum score for CDSE for this sample was 95.47 with a range of 35 to 125. Higher scores represent higher levels of career decision making self efficacy. A standard deviation of 16.65 indicates a normal distribution of the scores for this sample. The mean and standard deviation scores for this sample are consistent with findings from other studies on

CDSE in college student populations. Paulsen (2001) and Smith (2001) both reported means of 3.9 (on a five point continuum, where 1 = no confidence; 2 = very little confidence; 3 = moderate confidence; 4 = much confidence, and 5 = complete confidence) for college students with samples of $N = 603$ and $N = 423$, respectively. The mean score for this study sample of second generation South Asian college students was slightly lower than that of general college student populations at a mean of 3.81. This is indicative of an overall confidence level in the moderate to much confidence range which seems to be consistent with findings that college students in general indicate considerable confidence in their ability to perform the tasks necessary for effective career decision making.

Betz, Hammond & Multon, (2005) conducted an assessment of the CDSE-SF using 1832 college students. Only 2% of the sample was Asian and the identification of specific Asian sub-groups was not provided. However, the study reported a mean CDSE of 3.8 for Asian college students. The results of CDSE from this study on South Asian college students are consistent with those reported in other studies on Asian college student populations.

Hypothesis 1 stated that there is no contribution of the predictor variables (i.e., level of acculturation, androgynous gender role identity, perceived parental support, gender and GPA) on the level of CDSE for this population. The results of this study indicate that the perception of career related parental support and GPA are significant factors contributing to career decision self-efficacy in South Asian American college students. This model accounted for 13% ($R^2 = .13$) of the variance in the dependent variable, CDSE, with perceived parental support and GPA accounting for most of the variance. The closer an R^2 value is to 1, the better the model is at predicting the dependent variable. Therefore the predictive power of this model for CDSE in second generation South Asian college students is low.

CDSE and Level of Acculturation

Hypothesis 6 stated that there is no significant association between the level of career decision making self-efficacy reported and level of acculturation in second generation South Asian college students. With a mean score of 3.21, participants reflected a score indicative of a bicultural orientation. According to Richard Suinn (1992), this indicates that the sample population was, in general, capable of assuming the best of two worlds, with denial to neither, in this case Western and South Asian culture. The process of bicultural orientation is called integration in Berry's (2001) model of acculturation and he contends that this is the preferred mode of acculturation (Farver et.al., 2002).

Conceptualizations of acculturation whereby individuals may hold onto aspects of their culture of origin while also acquiring beliefs and attitudes of the host culture have been proposed by Berry (2001). Hence, engagement in the acculturative process will affect attitudes, values and beliefs in different ways; particularly self-efficacy beliefs, the types of activities people are willing to engage in and thus the types of careers they are willing to consider (Rivera, Chen, Flores, Blumberg & Ponterotto, 2007). This study assumed that higher career self efficacy would be associated with higher levels of acculturation (i.e., identification with Western culture), however this was not found to be statistically significant.

It is possible that the bicultural orientation of the participants in this study may be a benefit to career decision self-efficacy. In their study on the benefits of biculturalism among Asian and Latino youth and school dropout rates, Feliciano (2001), found that bilingual students were less likely to drop out than those in English-dominant or English-limited households, and students in immigrant households were less likely to drop out than those in nonimmigrant households. She concluded that bicultural students who were able to draw resources from both their community of origin and mainstream society were best equipped for educational success.

Therefore, it is logical to conclude that maintaining an immigrant culture, rather than assimilating into mainstream culture is an asset and could result in higher career decision making self-efficacy among individuals who are brought up in both cultures. This study may have found that a bicultural orientation is not only an asset but related to higher self-efficacy scores among second generation South Asian college students.

Hence, the assumption that higher CDSE would be associated with higher acculturation scores (i.e., more Western) may be a limiting conceptualization in studying the career decision making processes for this population. It is possible that higher CDMSE for this population is associated with a bicultural orientation rather than a completely Western orientation.

CDSE and Career Related Parental Support

Hypothesis 3 stated that there is no significant association between the level of career decision making self efficacy and perceived parental support in career decision making reported by second generation South Asian college students. There was statistically significant evidence to reject the null hypothesis and find that perceived career related parental support significantly influences CDSE in second generation South Asian college students.

Within Bandura's (1982), social cognitive theory model, role models are seen as sources of vicarious learning through which behaviors are learned and self-efficacy beliefs are formed. The findings of this study are consistent with findings in the social science literature that perceived parental support is a strong predictor of career decision self efficacy. Studies on the influence of parent support on CDSE by Turner & Lapan (2002), Turner et al. (2003), and Alliman-Brissett, Turner & Skovholt (2004), found that perceived parental support among adolescents a strong predictor of CDSE. Tang (2002) examined the relationship between parental influence and the career choices of Asian Americans, Chinese Americans and Caucasian

Americans. Results showed that Asian American and Chinese college students were more likely to be influenced by their families in making decisions about career.

Among South Asians, parents are highly involved in decision making for and with their children particularly in the areas of career choice and education. This type of influence is particularly strong when parents are first generation (Deepak, 2005; Mathews, 2000). South Asians have been described as a collectivistic culture which organizes values and behavioral mores around one or more collectives such as the family and extended family as well as other kinship networks and religious groups. There is an internalization of group values rather than individual independence and studies show that an authoritarian approach to parenting is typically engaged (Maiter & George, 2003).

Traditionally, the term authoritarian is used to describe a style of parenting that focuses on strict codes of behavior designed to subjugate children and establish parental control. Although this style of parenting differs from mainstream American culture, in which individuality is stressed, for South Asians (and other Asian groups) authoritarian parenting emerges from parental care and concern for children's well-being. Thus authoritarian parenting styles associated with South Asian culture is not accompanied by lower levels of warmth or negative attributions about children. Hence, there is a difference in the meaning of authoritarianism in collectivist and individualist cultures. This study showed a strong positive relationship between perceptions of parental support as it relates to career decision making self-efficacy.

CDSE and Androgynous Gender Role Identity

Hypothesis 2 stated that there is no significant relationship between the level of career decision self-efficacy and androgynous gender role identity in second generation South Asian college students. No statistically significant association was found in the regression analysis and

so androgynous gender role identity was not a significant factor in predicting CDMSE in this sample. The T-score was calculated for this variable to illustrate how this sample presented psychological androgyny, the integration of femininity and masculinity within a single individual and the ability to engage both feminine and masculine modalities such as compassionate and assertive as circumstances warrant (Bem, 1981). For this sample, there was no difference among males and females in using male and female characteristics in career decision making. This finding may provide support for previous discussions that gender roles in South Asian families are gradually becoming more equal and children of immigrants are enjoying greater freedom in decision making in career (Das & Kemp, 1997).

CDSE and Grade Point Average

Hypothesis 5 states that there is no significant association between the level of career decision self efficacy and GPA reported by second generation South Asian college students. There was statistically significant evidence to reject the null hypothesis. The results of this study indicate that higher student GPA's predict higher levels of career decision self-efficacy. Luzzo (1993) suggests that student GPA might represent his or her general cognitive skills that are essential for making effective career decisions.

Social cognitive career theory hypothesizes that self-efficacy beliefs lead to higher academic performance. Brown, Tramayne, Hoxha, Telander, Fan & Lent (2008), examined social cognitive predictors of college students' academic performance and found that there is a direct correlation between self-efficacy and academic performance (GPA). It is possible that students with higher versus lower self-efficacy beliefs work toward more challenging academic goals, and so the results of this study suggest that higher GPA scores may reflect higher self-efficacy related to career decision making. Hence, the results of this study on second generation

South Asians reflect the association between CDSE and GPA among general college student populations.

CDSE and Gender

Hypothesis 4 stated that there is no significant association between the level of career decision self-efficacy and gender in second generation South Asian college students. Results of this study indicate that gender is not a predictor of CDSE with this sample. Women in this study chose majors that represent traditional and nontraditional choices. However, some nontraditional career choices such as medicine are considered traditional choices for South Asian women. The sample for this study showed a greater number of women in medicine and other medical/health related major choices than men as well as a broader spectrum of majors chosen. The only majors where the numbers of men were greater than women were business, building construction and engineering. This distribution of majors for men in this study reflects traditional choices of major for men that have been reported throughout the social science literature. This finding reflects what has been reported in other studies, that women are increasingly choosing nontraditional careers while this is not generally true of men. In fact, the women in this study were underrepresented in majors such as education while heavily represented among the sciences. This finding is congruent with that of other studies that observe career choices of South Asian women as being heavily represented in the sciences.

It is possible that gender is becoming increasingly a lesser factor as a predictor of CDSE. A study conducted by Whitmarsh et al.,(2007), reviewed the U.S Department of Labor statistics to determine which careers were male versus female dominated. They were surprised to find that several careers that had been male dominated (for example, attorneys and physicians), where more than seventy- five per cent of positions were filled by men, had lost that ranking in 2002. Enough women were employed in those careers to make the category gender neutral. However,

there were no major changes of gender representation in careers that had been female dominated, such as teachers, nurses and social workers, which are still more than seventy-five per cent female. We might conclude that while there are still many female and male dominated professions, there is greater access of the genders to professions not typical of their gender, evidenced by the closing gender gap in some traditionally male dominated professions such law and medicine and observed in this study. Hence, with more career options available to women, gender may be a decreasing factor in predicting career decision self-efficacy. This is not to say that there are not significant gender gaps in other aspects of occupational life for women. The achievement of senior positions, promotions and equal pay are still recognized as ongoing gender biased issues.

Limitations

In this study there were inherent limitations concerning instrumentation and sample selection. Considerable effort was made in selecting instruments with sound psychometric properties to assess the variables in this study; however, none were discovered that had normative data for South Asian populations. The BSRI-SF (Maznah & Choo, 1986) has not been used specifically with second generation South Asian populations but had been used in studies with non-western populations. To use this instrument with non-western (for example Arab) populations, translation and modification of items were employed. This further weakened the generalizability of this instrument. The CRPSS (Turner et. al., 2003) was developed and used primarily to assess vocational efficacy among at risk adolescents in middle and high schools. A potential limitation of this study design is the nature of self-report instruments. Self-report inventories may be subject to malingering or faking and respondents may be inclined to select responses that create a favorable (socially desirable), or unfavorable impression (Anastasi, 1988).

This instrument has not been extensively used on college or South Asian populations and so relevant normative data for this study is not indicated.

There were sampling issues that limited the generalizability and validity of this study. The registrar's offices at the universities targeted for this study did not offer a South Asian or similar designation of race or ethnicity for its students. Thus South Asian students may have classified themselves as 'Asian' and possibly 'other' depending on how they self-identify. This resulted in limited access to the South Asian student population using this selection process.

The response rate of invited participants to this survey was only 12.5% despite the 1100 students invited to participate over three email contacts. There was no option for narrowing the sample population to the targeted second generation South Asians. The number of international students and non-South Asians is not known but since they did not fit the study criteria for participation (i.e., South Asian, second generation, between the ages of 18-24), they may have elected not to participate or were otherwise eliminated for not fulfilling these criteria. Alternatively, those who did participate may have been individuals readily engaged in the career development process.

Another limitation of this study that may have resulted in low participation is the idea that this study somehow reflected mental health or psychological issues. In South Asian culture there seems to be a negative stigma associated with mental health. South Asians are less likely to report psychosocial issues or seek help from mental health professionals. Mental illness is generally considered a weakness within this culture where being of sound mind and mental acuity is valued. South Asians are more likely to report somatic complaints to a physician and be selective in the symptoms reported. The possible diagnosis of a mental disorder, prescription of psychotropic medication and referral to mental health specialists may be perceived as

stigmatizing and irrelevant to their needs. There is a reluctance to seek treatment or assistance based on both stigma and ignorance on the effectiveness of treatment (Commander, Odell, Surtees & Sashidharan, 2004). Individuals are very concerned with how their actions reflect on their family. South Asians tend to maintain strong boundaries outside of the family which reflects a great sense of privacy. Thus, the stigma of mental illness and taking problems 'outside' the family would instill a sense of shame and reduce family honor. Hence, they may rarely seek psychotherapy (Rastogi & Wadhwa, 2006).

Implications

Practice

The results of this investigation can be useful for practitioners working with diverse college student populations, particularly students who are second generation South Asian dealing with career decision making issues. This population is at a unique point in the history of South Asians in the United States. Use of a social cognitive theoretical perspective allows practitioners to utilize a multifaceted approach when working with second generation South Asian students. Assessing the degree of parental support in career decision making is important in working with these students as well as taking into account the generally bicultural orientation of these students. It may be beneficial to include aspects of family dynamics in the counseling session, and consider using a collectivistic approach in addition to needs of the individual. Hence, individual counseling may incorporate culture of origin beliefs and values systems as well as expectations and needs of family and individual as intertwined and not separate.

It would be important for counselors to consider the value system of South Asians as well as the structure and hierarchy of the family and how that impacts the South Asian college student in decision making. One should not assume that because South Asian college students incorporate family traditions and values into their own world view and lifestyle that they do not

have some autonomy in career decision making. Practitioners should be aware that it would appear that there is no significant difference between men and women and gender role identity with respect to career self-efficacy. In fact, counselors should note that men and women may be equally adept at using a more androgynous approach to career decision making. In other words, second generation South Asian men and women in college do not differ in how they use ‘male’ and ‘female’ characteristics in making decisions about career.

Six per cent of the participants reported not having chosen a major. It may be reasoned that these students may be the ones experiencing lower CDSE and perceived parental support. Career counselors will have to consider the student-parent relationship within the South Asian cultural context when working with undecided South Asian American students. It is possible that students that struggle with choosing a major may be dealing with the stress of shame and bringing dishonor to their families. Counselors must familiarize themselves with the collectivistic cultural values of South Asians if they are to assist struggling students. For second generation students that identify as bicultural and may appear all-American, it is important to evaluate the individual student’s conceptualization of gender and gender role in career decision making; how liberal or traditional each individual’s ideas of career options may be mediated by the effects of South Asian culture. Dodson & Borders (2006), suggest that counselors consider gender role attitudes and beliefs when working with male clients. In fact a discussion about gender role socialization may shape career choices including the consideration of nontraditional career choices even if the client expresses some traditional beliefs.

When working with South Asian clients that are women, a discussion of role models in the student’s life may reveal the students orientation to considering traditional versus nontraditional majors or careers. Counselors must keep in mind that traditional career choices for

South Asian American women include the sciences and medical professions. Career choices in education, for example are not traditional choices for South Asian women. Only two women in this study sample chose education as their major, while there was a heavier representation of South Asian women in liberal arts and sciences which includes the biological sciences and other science related fields.

Theory

The results of this study contribute to the two theories guiding this research; Bandura's (1982) self-efficacy theory and Albert and Luzzo's (1999) social cognitive career theory (SCCT). The findings of this research confirm the influence of career related parental support and GPA (academic achievement) on career decision making self-efficacy. Bandura noted that the higher the level of self-efficacy, the higher the performance accomplishment. This notion is consistent with the finding in this study of higher reported GPA's associated with higher levels of career decision making self-efficacy. SCCT is explained as a framework for conceptualizing career development, including CDSE, recognizing that there are mutual interacting influences between people, their behavior and their environment. The findings from this study support the notion that contextual factors, such as parental support have an influence on career decision making confidence.

South Asians are a unique Asian subgroup in the United States based on a history of immigration in which relative educational and financial success was achieved by the first generation. This first generation is highly educated, consistent with findings in this study, and arrived speaking English, unlike many other Asian immigrant groups. The second generation, largely born in the U.S., has enjoyed a lifestyle that incorporates traditional and Western comforts. Within a single generation born in the United States, there is evidence that individuals have already integrated into mainstream American culture. In addition, these individuals have

also respected the beliefs, values and practices of their cultures of origin to arrive at a more bicultural orientation. The findings of this study indicate a largely bicultural orientation among participants but also higher levels of CDMSE. This means that the ability of second generation South Asians to navigate their cultures of origin and mainstream American culture is an asset in career decision making.

An assumption of this study was that the more acculturated participants are to Western culture (higher scores), the higher the CDSE. While there was no statistical significance for this, it is possible that self-efficacy in career decision making for second generation South Asians may be related to levels of biculturalism. There is little in the social sciences literature to support this other than recent discussions that biculturalism may be an asset in decision making. Inherent in a bicultural orientation is the ability to incorporate individualistic and collectivistic desires and needs into career decision making. Thus, using a lens of biculturalism within SCCT in examining mental health and career development processes of second generation South Asians might provide a richer theoretical discussion of ethnic identity and acculturation for this group.

Research

One implication of the findings from this study is that current instruments of acculturation for this population may need to be adjusted to accommodate the bicultural experiences of second generation South Asians in the United States. If research with this population addresses only the degree to which South Asian Americans identify with Western culture, the importance of bicultural experiences may be diminished. Development of instrumentation that provides a more in depth analysis of biculturalism may provide richer information in recognizing the experiences of young second generation South Asians and perhaps also offer a deeper understanding of acculturation/biculturalism across Asian subgroups.

The findings of this study implied that this particular model for predicting CDSE was relatively low. A revised, more powerful model for predicting CDME in second generation South Asian college students is warranted.

Recommendations for Future Research

Additional research could investigate the depth of parental involvement in career decision making and effects on self-efficacy among second generation South Asians. An examination of specific parenting behaviors and styles of parenting in South Asian families might inform practitioners and the counseling literature of new perspectives in individualism and collectivism in working with South Asian families and individuals in the United States. Investigating the influence of mother, father, and the extended family will provide further understanding of the roles family in career decision making, including hierarchy and gender roles. Including the perspective of the second generation on family dynamics may identify variables more specifically that affect self-efficacy as it relates to career decision making.

The current definition of South Asian in the social science literature excludes the many groups of South Asian ancestry who were born outside of South Asian countries but share cultural values and beliefs. For example there are large South Asian populations throughout Africa, the Caribbean and Europe that have been several generations out of South Asian countries but still share many of the same cultural values and beliefs. The inclusion of South Asians not originally from South Asian countries will allow for a broader examination and understanding of the diversity in South Asian experiences across the United States.

Conclusions

This chapter has provided a discussion of results and recommendations derived from an investigation of acculturation, career related parent support, gender, gender role identity and GPA on the career decision self-efficacy of second generation South Asian college students. The

findings that were significant were discussed, and associations were examined for expanding future studies. The findings of this study reinforce the conclusions of prior research regarding the influences of parental support and GPA on self-efficacy related to career decision making among second generation South Asian college students. It is hoped that continued investigation will stimulate further understanding of family connections and individual needs and how these interface with mainstream American culture in career decision making.

APPENDIX A
LETTER TO PARTICIPANTS

Dear Participant,

In a better effort to understand how young adult South Asians make decisions about career, a research study is being conducted on the influence of acculturation, gender role identity and parental support. As a doctoral candidate in the Counselor Education Department at the University of Florida, I am inviting you to participate in this study.

Participation will require about 20 minutes. You will be asked to complete several questionnaires that ask you about your own career decisions, your perceptions of and preferences for culture, how you would describe your personality, and your perceptions about your parents support in career planning. Lastly, you will be asked to complete a demographic questionnaire that gives you an opportunity to share any additional information you think would be helpful to me. You will not be asked to provide your identity and your responses will be kept confidential and anonymous to the extent provided by the law. Questions or concerns about your rights as a research participant may be directed to the UFIRB office, University of Florida, Box 112250, Gainesville, FL. 32611; ph (352) 392-0433.

Your participation in this study is completely voluntary. You do not have to answer any question that makes you uncomfortable and you may withdraw at any time. There are no known risks; however, if you feel that you need to speak with someone regarding issues stimulated by these surveys, you may contact me for a referral. No immediate benefits are anticipated but you will be contributing to an important study on South Asian college student experiences. There will be no compensation for participating in this study.

If you have any questions about this study, you may contact me by phone at (352) 317-3260 or by email, sasawyer@ufl.edu. You may also contact my faculty supervisor, Dr Ellen Amatea, at (352) 392-0731. Either of us may be contacted in writing at 1212 Norman Hall, University of Florida, Gainesville, FL, 32611.

Sincerely,

Shanaz Ali Sawyer, M.S., Ph.D. Candidate
Licensed Mental Health Counselor # 7822
Principal Investigator

Ellen Amatea, Ph.D.
Supervisor

Date_____

Date_____

APPENDIX B
DEMOGRAPHIC DATA SHEET

Instructions: Please fill out the following section using the menu provided. No identifying information will be requested and all responses will be kept anonymous.

1. Age: 18 19 20 21 22 23 24

2. Gender: Male Female Other (please specify)_____

3. Current GPA below 2.0 2.1 – 2.4 2.5 – 2.9 3.0 – 3.5 3.6 – 4.0

4. Current Year in College: Freshman Sophomore Junior Senior Graduate student

5. Please choose ONE of the following:

I have chosen a major____ I am undecided about my major____

6. Major (if applicable): _____

7. Where were you born?

India Pakistan Bangladesh Sri Lanka Nepal Bhutan United States

8. If you were not born in the United States, how old were you when you arrived?

Before the age of 12__ After the age of 12__

9. What country is your mother from?

India Pakistan Bangladesh Sri Lanka Nepal Bhutan United States

10. If your mother was not born in the U.S how old was she when she arrived in the U.S?

Before the age of 12__ After the age of 12__

11. What is your mother's highest level of education attained?

High School Some college Bachelor's degree Master's Degree Doctoral Degree
Professional Degree (such as M.D, JD, etc.) Other

12. What is/was your mother's occupation? Please indicate even if she is not currently employed. _____

13. What country is your father from?

India Pakistan Bangladesh Sri Lanka Nepal Bhutan United States

14. If your father was not born in the U.S how old was he when he arrived in the U.S?

Before the age of 12__ After the age of 12__

15. What is your father's highest level of education attained?

High School Some college Bachelor's degree Master's Degree Doctoral Degree
Professional Degree (such as M.D, JD, etc.) Other

16. What is/was your father's occupation? Please indicate even if he is not currently employed. _____

17. In this section, please feel free to add any additional information you feel would be helpful to me in addition to the information you have already provided.

LIST OF REFERENCES

- Abdalla, I. A. (1995). Sex, sex-role self-concepts and career-decision making self-efficacy among Arab students. *Social Behavior and Personality, 23*(4), 389-402.
- Abu-Ali, A. (1999). Gender role identity among adolescent Muslim girls living in the U.S. *Current Psychology, 18*(2), 185.
- Albert, K. A., & Luzzo, D. A. (1999). The role of perceived barriers in career development: A social cognitive perspective. *Journal of Counseling and Development, 77*, 431-436.
- Alliman-Brissett, A., Turner, S., & Skovholt, T. (2004). Parent support and African American adolescents' career self-efficacy. *Professional School Counseling, 7*(3), 124-132.
- Anastasi, A. (1988). *Psychological testing* (6th ed.). New York: Macmillan Publishing
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist, 37*, 122-147.
- Bem, S.L. (1981). *Bem Sex-Role Inventory Sampler Set*. Consulting Psychologists Press, Inc. Mind Garden, Inc.
- Berry, J.W. (2001). A psychology of immigration. *Journal of Social Issues, 57*(5), 615-631.
- Betz, N.E. (2004). Contributions of self-efficacy theory to career counseling: A personal perspective. *The Career Development Quarterly, 52*, 340-353.
- Betz, N. E. (1992). Counseling uses of career self-efficacy theory. *The Career Development Quarterly, 41*, 22-26.
- Betz, N. E., & Fitzgerald, L. F. (1995). Career assessments and intervention with racial and ethnic minorities. In F. T. Leong (Ed.), *Career Development and Vocational Behavior of Racial and Ethnic Minorities*. Mahwah, NJ: Erlbaum.
- Betz, N. E., & Hackett, G. (1981). The relationship of career-related self-efficacy expectations to perceived career options in college women and men. *Journal of Counseling Psychology, 28*(5), 399-410.
- Betz, N.E., Hammond, M.S., & Multon, K.D.(2005). Reliability and validity of five-level response continua for the career decision self-efficacy scale. *Journal of Career Assessment, 13*(2), 131-150.
- Betz, N.E., Klein, K. L., & Taylor, K.M. (1996). Evaluation of the short form of the career decision making self efficacy scale. *Journal of Career assessment, 4*(1), 47-57.
- Betz, N., & Luzzo, D.A. (1996). Career assessment and the career-decision making self-efficacy scale. *Journal of Career Assessment, 4*, 413-428.

- Betz, N., & Taylor, K. (1983). Career decision-making self-efficacy scale. Retrieved Saturday, February 17, 2007 from the Mental Measurements Yearbook database.
- Bigler, R.S. (1995). The role of classification skill in moderating environmental influences on children's gender stereotyping: A study of the functional use of gender in the classroom. *Child Development, 66*, 1072-1087.
- Boney, V. (2002). Predictors of cognitive hardiness in young adult children of divorce (Doctoral dissertation, University of Florida, 2002). *Dissertation Abstracts DAIA 64/03*, p.809.
- Brown, S.D., Tramayne, S., Hoxha, D., Telander, K., Fan, X., & Lent, R.W. (2008). Social cognitive predictors of college students' academic performance and persistence: A meta-analytic path analysis. *Journal of Vocational Behavior, 72*, 298-308.
- Chang, T., Tracey, T.J., & Moore, T.L. (2005). The dimensional structure of Asian American acculturation: An examination of prototypes. *Self and Identity, 4*, 25-33.
- Coogan, P.A., & Chen, C.P. (2007). Career development and counselling for women: Connecting theories to practice. *Counselling Psychology Quarterly, 20(2)*, 191-204.
- Commander, M.J., Odell, S.M., Surtees, P.G., & Sashidharan, S.P. (2004). *Social Psychiatry & Psychiatric Epidemiology, 39*, 259-264.
- Creswell, J.W. (2005). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, NJ: Pearson Education.
- Das, A. K., & Kemp, S. F. (1997). Between two worlds: counseling South Asian Americans. *Journal of Multicultural Counseling and Development, 25(1)*, 23-33.
- Deepak, A.C., (2005). Parenting and the process of migration: Possibilities within South Asian families. *Child Welfare, 84(5)*, 585-606.
- Dodson, T.A., & Borders, L.D. (2006). Men in traditional and nontraditional careers: Gender role attitudes, gender role conflict, and job satisfaction. *The Career Development Quarterly, 54*, 283-296.
- Farver, J.M., Bhadha, B.R. & Narang, S.K. (2002). Acculturation and psychological functioning in asian indian adolescents. *Social Development, 11(1)*, 11-29.
- Feliciano, C. (2001). The benefits of biculturalism: Exposure to immigrant culture and dropping out of school among Asian and Latino youths. *Social Science Quarterly, 82(4)*.
- Gloria, A.M., & Hird, J.S. (1999). Influences of ethnic and non-ethnic variables on the career decision-making self-efficacy of college students. *The Career Development Quarterly, 48*, 157-174.

- Herr, E. L., & Cramer, S. H. (1996). *Career Guidance and Counseling Through the Lifespan* (5th ed.). NY: Addison Wesley Longman
- Holt, C. (1998). Assessing the current validity of the Bem sex-role inventory. *Sex Roles, 39*(11/12), 929-941.
- Ibrahim, F., Ohnishi, H., & Sandhu, D. S. (1997). Asian American identity development: A culture specific model for South Asian Americans. *Journal of Multicultural Counseling and Development, 25*(1), 34-50.
- Inman, A., Ladany, N., Constantine, M. G., & Morano, C. K. (2001). Development and preliminary validation of the cultural values conflict scale for South Asian Women. *Journal of Counseling Psychology, 48*(1), 17-27.
- Inman, A., & Nath, S. (2002, March). *Racial/ethnic identity and its salience to the experience of cultural value conflict for South Asian women*. Paper presented at the American Counseling Association Annual Conference, New Orleans, LA.
- Johnson, M.L., Wall, T.L., Guanipa., Terry-Guyer, L., Velasquez, R.J. (2002). The psychometric properties of the orthogonal cultural identification scale in Asian Americans. *Journal of Multicultural Counseling and Development, 30*, 181-191.
- Kim, H., Rendon, L., & Valadez, J. (1998). Student characteristics, school characteristics, and educational aspirations of six Asian American ethnic groups. *Journal of Multicultural Counseling and Development, 26*(3), 166-176.
- Kitano, H. H., & Maki, M. T. (1996). Continuity, Change, and Diversity: Counseling Asian Americans. In P. B. Pederson & J. G. Draguns & J. L. Walter & E. T. Joseph (Eds.), *Counseling Across Cultures* (4th ed., pp. 124-145). Thousand Oaks, CA: Sage Publications.
- Lease, S.H. (2003). Testing a model of men's nontraditional occupational choices. *The Career Development Quarterly, 51*, 244-258.
- Lee, C. (1997). *Multicultural issues in counseling: New approaches to diversity* (2nd ed.) Alexandria, VA: American Counseling Association
- Lent, R.W., Brown, S.D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice and performance. *Journal of Vocational Behavior, 45*, 79-122.
- Lent, R. W., & Hackett, G. (1987). Career self-efficacy: Empirical status and future directions. *Journal of Vocational Behavior, 30*, 347-382.
- Leong, F. T. (1993). The career counseling process with racial-ethnic minorities: The case of Asian Americans. *The Career Development Quarterly, 42*(1), 26-40.

- Leong, F. T., & Haynes, T. J. (1990). Occupational stereotyping of Asian Americans. *The Career Development Quarterly*, 39(2), 143-154.
- Lips, H. M. (1992). Gender and science-related attitudes as predictors of college students' academic choices. *Journal of Vocational Behavior*, 40, 62-81.
- Luzzo, D. (1993). Value of career-decision making self-efficacy in predicting career decision making attitudes and skills. *Journal of Counseling Psychology*, 40 (2), 194-199.
- Luzzo, D. (1993). Reliability and validity testing of the career decision-making self efficacy scale. *Measurement and Evaluation in Counseling and Development*, 26(2), 137.
- Luzzo, D. (1996). A psychometric evaluation of the career decision-making self-efficacy scale. *Journal of Counseling and Development*, 74, 276-279.
- Luzzo, D. A., & McWhirter, E. H. (2001). Sex and ethnic differences in the perception of educational and career-related barriers and levels of coping efficacy. *Journal of Counseling and Development*, 79(3), 61-67.
- Malgwi, C.A., Howe, M.A., & Burnaby, P.A. (2005). Influences on students' choice of college major. *Journal of Education for Business*, 80(5), 275-282.
- Marin, G. (1992). Issues in the measurement of acculturation among Hispanics. In K.F. Geisinger (Ed.), *Psychological testing of Hispanics*. Washington, D.C: American Psychological Association
- Mathews, R. (2000). Cultural patterns of South Asian and Southeast Asian Americans. *Intervention in School and Clinic*, 36(2), 101-104.
- Maznah, I., & Choo, P.F. (1986). The factor structure of the Bem sex-role inventory (BSRI). *International Journal of Psychology*, 21, 31-41.
- Millard, R., Habler, B., List, J. (1984). Sex-role orientation and career indecision. *The Journal of Psychology*, 117, 217-220.
- Ngo, B. (2006). Learning from the margins: The education of Southeast and South Asian Americans in context. *Race, Ethnicity and Education*, 9(1), 51-65.
- Ozkan, T., & Lajunen, T. (2005). Masculinity, femininity, and the Bem sex role inventory in turkey. *Sex Roles*, 52(1/2), 103-110.
- Paulsen, A. (2001). Construct validity of measures of career-related self-efficacy expectations. Unpublished doctoral dissertation, Ohio State University, Columbus.

- Phinney, J.S., Horenczyk, G., Leibkind, & K., Vedder, P. (2001). Ethnic identity, immigration, and well-Being: An interactional perspective. *Journal of Social Issues, 57*(3), 493-510.
- Ponterrotto, J., Baluch, S., & Carelli, D. (1998). The Suinn-Lew Asian self-identity acculturation scale. *Measurement and Evaluation in Counseling and development, 32* (2), 109. Retrieved March 12, 2007 from the Academic Search Premier database.
- Portman, T. A. (2001). Sex role attributions of American-Indian women. *Journal of Mental Health Counseling, 23* (1), 72-84.
- Quimby, J.L., & DeSantis, A.M.(2006). The influence of role models on women's career choices. *The Career Development Quarterly, 54*, 297-306.
- Ramsetty-Mikler, S. (1993). Asian Indian immigrants in America and sociocultural issues in counseling. *Journal of Multicultural Counseling and Development, 21*(1), 36-49. Retrieved July 13th, 2008, from Academic Search Premier database.
- Rastogi, M.,& Wadhwa, S. (2006). Substance abuse among Asian Indians in the United States: A consideration of cultural factors in etiology and treatment. *Substance Use & Misuse, 41*, 1239-1249.
- Rivera, L.M., Chen, E.C., Flores, L.Y., Blumberg, F., & Ponterotto, J.G. (2007). The effects of perceived barriers, role models, and acculturation on the career self-efficacy and career consideration of Hispanic women. *The Career Development Quarterly, 56*, 47-81.
- Seth, M. (1995). Asian Indian Americans. In P. G. Min (Ed.), *Asian Americans: Contemporary Trends and Issues* (pp. 169-198). Thousand Oaks, CA: Sage.
- Smith, H. (2001). Efficacy and esteem pathways to depression in college students. Unpublished doctoral dissertation, Ohio State University, Columbus.
- Sodowsky, G. R., & Carey, J. C. (1987). Asian Indian immigrants in America: Factors related to adjustment. *Journal of Multicultural Counseling and Development, 15*(3), 129-141.
- Sodowsky, G.R., Kwan, K. K., & Pannu, R. (1995). Ethnic identity of Asians in the United States. In J.G. Ponterrotto, J.M. Casas, L.A. Suzuki, & C.M. Alexander, (Eds.), *Handbook of Multicultural Counseling*. Thousand Oaks, CA: Sage.
- Sullivan, K. R., & Mahalik, J. R. (2000). Increasing career self-efficacy for women: evaluating a group intervention. *Journal of Counseling and Development, 78*(1), 54-62.
- Suinn, R.M., Ahuna, C., & Khoo, G. (1992). The Suinn-Lew Asian self-identity acculturation scale: Concurrent and factorial validation. *Educational & Psychological measurement, 52*(4), 1041-1046.

- Suinn, R., Khoo, G., & Ahuna, C. (1995). The Suinn-Lew Asian self-identity acculturation scale: Cross-cultural information. *Journal of Multicultural Counseling & Development, 23*(3), 139-150.
- Tang, M. (2002). A comparison of Asian American, Caucasian American, and Chinese college students: An initial report. *Journal of Multicultural Counseling and Development, 30*, 124-134.
- Taylor, K., & Betz, N. (1983). Applications of self-efficacy theory to the understanding and treatment of career indecision. *Journal of Vocational Behavior, 22*(1), 63-81.
- Turner, S., Alliman-Brissett, A., Lapan, R., Udipi, S., & Ergun, D. (2003). The career related parent support scale. *Measurement and Evaluation in Counseling and Development, 36*, 83-93.
- Turner, S., & Lapan, R.T.(2002). Career self-efficacy and perceptions of parent support in adolescent career development. *The Career Development Quarterly, 51*, 44-55.
- U.S. Census Bureau. (2004). *Ancestry: 2000, Census 2000 Brief*. Retrieved Feb 2007, from <http://www.census.gov/prod/2004pubs/c2kbr-35.pdf>
- Whitmarsh, L., Brown, D., Cooper, J., Hawkins-Rodgers, Y., & Wentworth, D.K. (2007). Choices and challenges: A qualitative exploration of professional women's career patterns. *The Career Development Quarterly, 55*, 225-236.

BIOGRAPHICAL SKETCH

Shanaz Ali Sawyer was born in London, England, in 1968, the oldest of three children. Having lived in the Croydon area, she moved with her family to Trinidad and Tobago at the age of 11. There she attended Holy Faith Convent Couva school for girls and then returned to England at the age of 16 to attend Croydon College. In 1987 at age 19 she relocated again with her family to Florida where she moved to Gainesville to attend the University of Florida. After earning her bachelor's degree in psychology, Shanaz married Mike Sawyer and pursued her master's degree in psychology, mental health counseling at Nova Southeastern University. As they began building their life in Gainesville, Shanaz entered the counselor education program at the University of Florida to pursue her dream of earning a doctorate in the field of mental health. While in the program Shanaz and Mike welcomed their children Annika and Adam. Through the years while raising children and attending classes, Shanaz took the opportunity to travel extensively with her husband and work toward earning her state license in mental health counseling.