ADVISING AND ACCULTURATION VARIABLES AS PREDICTORS OF SATISFACTION,

SENSE OF BELONGING, AND PERSISTENCE AMONG INTERNATIONAL

UNDERGRADUATES

by

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Abstract

Guided by the work of Hurtado and Carter (1997) as an alternative to Tinto's theory of student

departure (1993), the purpose of this quantitative study was to explore the relationship of

institutional and cultural factors to satisfaction with academic advising, sense of belonging to

campus and retention among international undergraduate students in the United States.

Participants included 301 undergraduate international students who completed an online survey

that examined the advising relationship, advisor-advisee activities, country of citizenship,

acculturation, advising satisfaction, sense of belonging, and intent to persist. Measurement tools

utilized included the Academic Advising Inventory (Winston & Sandor, 1984), Stephenson

Multigroup Acculturation Scale (Stephenson, 2000), and Sense of Belonging to Campus

questionnaire (Hurtado & Carter, 1997; Hurtado & Ponjuan, 2005). Findings indicated that the

advising relationship and acculturation were significant predictors of international students'

satisfaction with academic advising, and acculturation and advising satisfaction were important

influences on sense of belonging. Additionally, advisor-advisee activities, advising satisfaction,

and sense of belonging were important variables in predicting intent to persist to graduation. The

results of this study provide direction for higher education administrators and researchers in their

efforts to gain a better understanding of factors leading to international student success.

CHAPTER I: Overview of the Study

International students represent a noteworthy segment of college students in the United States. The number of international students enrolled in the U.S. increased by 32% over 10 years to a record high of 723,277 in 2010 (Institute of International Education, 2011). During the 2010-2011 academic year, this group contributed roughly $20.23 billion to the U.S. economy (NAFSA Association of International Educators, 2010).

In addition to facing many of the same academic challenges as their American counterparts, international college students experience unique challenges such as language difficulties, social and cultural adjustment stressors, financial problems and the demands of adapting to a new educational system (Cadieux & Wehrly, 1986; Charles & Stewart, 1991).   If the stress becomes too great, students are at risk of dropping out prior to the completion of their degrees. With educational budgets tightening, University officials must determine the best use of their financial resources to increase international student success. Academic advising has been shown to be a promising field in which university leadership can invest to help improve student performance and persistence (Beal & Noel, 1980; Braxton & McClendon, 2002; Habley & McClanahan, 2004; Hossler, 1990).

Academic advisors are in a position to help international students succeed. Advising is the most frequently cited student service positively associated with student persistence (Hossler, 1990). Additionally, academic advising is one of the most powerful institutional factors that reduces college student departure and enhances students' acclimation to college (Braxton & Mundy, 2001). High-quality advising, defined by student perception, was associated with lower attrition rates through effects on GPA, satisfaction in the role of a student, the value of a college education for future employment, and intent to leave the university (Metzner, 1989). The

academic advisor serves as an agent between the institution and the international student, helping

the student adjust to academic demands and achieve academic success (Charles & Stewart, 1991).

According to the landmark report, *What Works in Student Retention*, which assessed student

satisfaction and retention across hundreds of higher education institutions, academic advising

was ranked as a leading factor promoting student persistence (Beal & Noel, 1980). Twenty-four

years later, when the study was replicated, the results remained the same (Habley & McClanahan,

2004); academic advisors promote retention.

Satisfaction with advising is important. The National Survey of Student Engagement

(NSSE) (2005) data indicated that students who rate their advising as good or excellent are more

likely to interact with faculty, identify the school's environment as more supportive, and are

more satisfied with their overall college experience (Gordon, Habley, Grites, & Associates,

2008). Additional analysis put forth by Gordon et al. (2008) of the NSSE (2005) data found that,

"the quality of academic advising is the single most powerful predictor of satisfaction with the

campus environment for students at four-year schools" (p. 73), where quality is defined by

student perception.

Despite the continuously increasing number of international students pursuing degrees in

the U.S. and the documented benefits of academic advising, little research has been conducted on

international students' experiences with academic advising. Recognizing the current gap in the

literature, this study seeks to explore variables that contribute to international student *satisfaction

with advising* and ultimately retention.

Background of the Study

International students comprise an important segment of diversity on university

campuses; however, this valuable diversity can make it challenging for international students to

succeed in their new surroundings. Common stressors among international students in the United States include language anxiety, financial problems, educational concerns, and sociocultural difficulties. Ability to speak the language is the predominant concern for international students regarding their educational experience abroad (Cadieux & Wehrly, 1986). A lack of English proficiency will impact students' ability to understand lectures, accomplish course readings, participate in class discussion, and answer questions on an exam. It may also affect them socially and psychologically, having a lasting impact on their self-concept, and behavioral, cognitive, and emotional aspects of adjustment. International students may feel uncomfortable navigating daily life, which can lead to insecure feelings and a diminished self-efficacy (Chen, 1999).

Financial problems are the second most commonly expressed stressor international students face. It is a common misperception that members of this group come from primarily wealthy backgrounds. Many international students worry about having sufficient funds to pay for their education and living expenses, which causes them to take on heavier course loads to accelerate their academic progress (Cadieux & Wehrly, 1986). Academic overload is especially stressful for non-native English speakers who may also be facing academic restrictions placed on them by their home governments, families, or financial sponsors (Charles & Stewart, 1991), leading to greater financial strain.

Adjustment to a new educational system is another challenge for international students. They may be uncomfortable choosing their own courses, taking multiple-choice tests, and being asked to synthesize material instead of recalling memorized facts (Cadieux & Wehrly, 1986). The relatively informal environment of the U.S. college classroom along with required class participation or presentations may be jarring (Chen, 1999).

Furthermore, social and cultural adjustment may impact international students. Students may feel social isolation and alienation, loneliness and homesickness (Chen, 1999). Additionally, students from collectivistic cultures could have a hard time in the individualistic American society (Cadieux & Wehrly, 1986). Social stigma may be attached to help-seeking behaviors so students might not reach out for the help they need, which can negatively impact their persistence (Cadieux & Wehrly, 1986). Acculturative stress (i.e. culture shock) is a common difficulty for these students. It results when individuals face problems because of intercultural contact that cannot be overcome easily by simply assimilating or adjusting (Berry, 2006). Furthermore, international students may experience racial discrimination and prejudice that can derail a healthy acculturation process and negatively impact their psychological well-being (Chen, 1999).

International students regularly encounter unique challenges during their degree programs in the United States and academic advisors are in a position to help them persist and graduate. Advisors can assist international students in achieving a greater connection to campus and greater levels of learning and development. Academic advisors can help international students adjust to a new environment but in doing so they must be careful not to treat international students as a homogenous group. Instead, they must seek to understand ethnic group and individual differences to address each student's unique needs. Cultural sensitivity is an essential component when advising international students (Charles & Stewart, 1991). It involves an attitude of genuine caring and interest about each student and can lead to effective advising (Cadieux & Wehrly, 1986).   International students from the same regions or countries may face similar challenges adjusting to the educational system in the United States. The college experience is interpreted differently by students depending on their *country of origin* and home

culture (Zhao, Kuh, & Carini, 2005). Culturally sensitive advisors take time to understand these different worldviews. They understand that students' values are, in part, made up by their home cultures. However, although learning about cultural trends and students' countries of citizenship can enhance advising quality, advisors must be careful not to make sweeping generalizations about their students based on their home countries. Therefore, in addition to between-group differences, variations within cultural groups can be examined in an attempt to better assist international students.

One of the most important measures of within-group variation is *acculturation* (Zane & Mak, 2003). Acculturation involves multidimensional change in cultural values and behaviors that results from continuous contact between two distinct cultural groups (Berry, 1997, 2003; Stephenson, 2000). Research has suggested there are large group and individual differences in acculturation. The amount of stress experienced and how well individuals psychologically and socioculturally adapt varies. Students' acculturation will vary along two dimensions – how much they maintain their current identity and characteristics and how much they connect to their new surroundings. Understanding students' ethnic group differences and individual acculturation levels allows advisors to assist with each student's unique needs and by doing so, increase students' satisfaction with the academic advising they receive.

In addition to being mindful of students' within- and between-group differences, advisors need to contemplate how they build a relationship with each student and what activities they engage in with their advisees. Advisors should strive to tailor each *relationship* to meet individual students' needs. For example, students' comfort levels vary based on how much direct advice they prefer to receive from an advisor. Additionally, the *advisor-advisee activities* should vary based on the needs of each student. Topics discussed in each session should not

look exactly the same, but instead should be tailored to the individual. To increase advising

satisfaction, advisors need to be thoughtful about the relationships they build with each advisee

as well as the activities carried out in advising sessions.

In an effort to address the gap in literature, this study attempts to understand how

academic advisors can help international students adjust to their new environment. One goal of

this study is to explore how international student country of citizenship, acculturation, advising

relationship, and advisor-advisee activities contribute to the improvement of this population's

satisfaction with advising and academic persistence.

Theoretical Framework

Researchers and administrators have spent countless hours trying to determine why

students persevere or drop out. The discussion below on this prominent topic of student

retention in higher education will provide the theoretical basis for the present study. It will begin

with an overview of Vincent Tinto's (1987) tremendously popular, and consequently often

unquestioned, theory on college student departure. Following this synopsis, critiques of the

theory that are especially important to consider when working with non-

traditional/underrepresented student populations, such as international students, will be reviewed.

One alternative concept, sense of belonging, will be presented as a modification to Tinto's theory

and an explanation will be provided on why and how this psychological construct will be

incorporated into the present study.

Integration. The most widely accepted and frequently cited theory on college student

departure was created by Vincent Tinto (Guiffrida, 2006; Kuh, Kinzie, Buckley, Bridges, &

Hayek, 2006; Tierney, 1992). Tinto derived his theory from Durkheim's (1951) work on

suicide. He compared leaving society to leaving school, finding in both scenarios a lack of a

feeling of belonging (Tinto, 1987). Additionally, Tinto used Van Gennep's (1960) transitional model, and the notion of "breaking away" as a basis for his student departure theory, stating that students must separate from "past communities" and integrate into their new college culture. Tinto described a connection between environment and retention. Students' pre-college attributes are connected to their goals and commitments. Pre-college attributes consist of prior qualifications, individual, and family attributes. Once students have entered college, these attributes help determine their goal commitments and institutional commitments. Furthermore, their pre-college attributes and commitments interact with their academic and social integration (or lack thereof) to make up students' dropout decisions. More specifically, these goals and commitments work together with informal and formal social and academic college experiences. The more a student is academically and socially integrated into the corresponding systems of the school, the less likely they are to drop out (Tinto, 1987).

   Emancipation and empowerment. Frequently, Tinto's integration theory goes unquestioned. It is the dominant theory pertaining to college student retention and is widely applied by university administrators. It is employed to guide program development and intervention strategies. Several years after Tinto published his seminal work on college student retention, an article was written critiquing the individualistic nature of the theory. Tierney (1992) was concerned about applying this theory to students who do not develop within an individualistic culture. He questioned integration theory's labeling of college as a "rite of passage," especially for those students raised to value a more collectivistic outlook (Tierney, 1992). For Tierney, a rite of passage meant moving to a new level within the same culture. Most institutions of higher education in the United States were developed within a Eurocentric framework and Tinto's integration theory emphasizes mainstream U.S. culture; therefore,

international students are not attempting to navigate within their culture. By attending college in

the United States these students are navigating between cultures. Tierney (1992) suggests:

> Rather than think about student participation from a social integrationist perspective, an
>
> alternative model is to conceive of universities as multicultural entities where difference
>
> is highlighted and celebrated. Accordingly, if we want our colleges and universities to be
>
> multicultural we need theoretical models different from those of the social integrationists,
>
> which in turn will call for different assumptions about reality and what must be done to
>
> engage college students. (p. 604)

It is harmful to encourage separation from support systems and cultural traditions, especially

during this new and unfamiliar time because students need the familiarity and support of their

home communities (Tierney, 1992). Tierney (1992) stated practitioners must move "away from

a model of social integration and assimilation and toward a framework of emancipation and

empowerment" (p. 616).

Connection. Tinto's college student departure theory evolved over time due to his own

research and others' suggestions. However, it has been argued that even with the changes, the

theory lacks cultural consideration. Similar to Tierney's critique, Guiffrida (2006) suggested a

change to make the theory more culturally sensitive. He thought the term *integration* should be

replaced with the term *connection*. Integration implies becoming socialized into the dominant

culture while abandoning a former culture. Connection recognizes the need to relate to the new

culture but does not imply a student must break away from a former community. Guiffrida

(2006) suggested:

> The proposed changes allow the theory to recognize how diverse socialization
>
> experiences impact motivation toward academic achievement and persistence, and, as a

result, provide a more comprehensive, multicultural understanding of student

commitment. (p. 467)

According to Guiffrida (2006), this is especially true for students holding cultural norms that are

collectivistic. In cultural identity terminology, the integration framework is suggesting students

should assimilate. This is an outdated, unnecessary request and the concept can be replaced by

models of acculturation (Guiffrida, 2006).

Sense of belonging. In addition to Tierney and Guiffrida, scholars who believed Tinto's

model did not adequately address the racial-ethnic dimension of integration experiences also

suggested modifications. Hurtado and Carter (1997) proposed that greater attention should be

paid to students' subjective sense of integration. They argued that Tinto's integration theory was

primarily focused on behavior. Instead, they recommended examining *sense of belonging*, a

psychological construct that seeks to measure students' feelings of inclusion on campus.

Additionally, they worried that instead of a shared responsibility between the student and the

institution, integration puts the burden entirely on the student to adapt and change while

attempting to plot a course toward success (Cheng, 2004; Hurtado & Carter, 1997; Rendón,

Jalomo, & Nora, 2000). The theory behind sense of belonging suggests that international

students are able to feel part of the campus community without conforming to or adopting the

values of the majority (Bollen & Hoyle, 1990). Researchers have expended upon the early sense

of belonging literature by included a wider range of racial and ethnic groups. African American,

Latino, and Asian Pacific American students report a less strong sense of belonging on campus

than Caucasian students; however, a smooth transition to college has been shown to have a

strong, positive association with a student's sense of belonging (Johnson et al., 2007).

Literature on student retention suggests that contact with a significant person within the school is a critical factor when a student is considering departure (Chickering & Gamson, 1987; Glennen, Farren, & Vowell, 1996). Advisors are in a position to build positive relationships with international students and increase their sense of belonging, and a strong sense of belonging to campus theoretically improves retention. Therefore, in addition to investigating international student satisfaction with advising, the present study will also examine a second outcome variable, sense of belonging to campus. Lastly, because the present study will exchange Tinto's variable of integration with Hurtado and Carter's variable of sense of belonging as a possible factor contributing to student persistence, a third outcome variable, intent to persist, will be evaluated to examine the potential relationship between sense of belonging and retention.

Purpose of the Study

The purpose of this study is to explore institutional and cultural factors that may predict satisfaction with academic advising in undergraduate international students. Additionally, it will investigate an alternative to Tinto's integration model by examining the relationship between sense of belonging and intent to persist in international college students. More specifically, the purpose is to determine if there is a connection between the advising relationship, advisor-advisee activities, country of citizenship, and acculturation on advising satisfaction, sense of belonging, and intent to persist among undergraduate international students.

Research questions. This study will investigate the following research questions:

RQ1.   Are there ethnic group differences by *countries of origin* in *advising satisfaction* among international college students?

RQ2.   Do *advising relationship*, *advisor-advisee activities,* and *acculturation* predict *advising satisfaction* among international college students?

RQ3. Do *advising relationship, advisor-advisee activities, acculturation*, and *advising satisfaction* predict *sense of belonging* among international college students?

RQ4. Do *advising relationship*, *advisor-advisee activities, acculturation, advising satisfaction,* and *sense of belonging* predict *intent to persist to graduation* among international college students?

Importance of the Study

The United States population is becoming more racially and ethnically diverse. According to the Census Bureau, the minority population is projected to approach 50 percent by 2050 (U.S. Census Bureau, 2009). If this projection represents the country's future demographic reality, citizens will be challenged by a society with increasing cultural diversity. Additionally, global interactions are increasing. Globalization creates the need for individuals to develop a new set of skills to be able to successfully navigate across cultures in the emerging global society (Sorrells, 2013; Suárez-Orozco, 2007). To enhance individuals' interactions with one another, it seems reasonable to work at identifying ways in which people can develop a greater openness to racial and cultural diversity. Increasing acceptance and understanding between diverse individuals can lead to a more harmonious society (Suárez-Orozco, 2007).

College students are in a prime position to enhance their cultural competence; the majority of undergraduates are at the age identity formation occurs and time in school provides exposure to new ideas, space for comparison, and experimentation. Thus, school officials can foster identity development that promotes harmony among diverse students. Universities can develop learning environments that promote and value diversity by exposing students to a variety of perspectives that encourage them to examine, challenge, and refine their own beliefs. Students educated in diverse institutions with opportunities to interact with diverse peers will be

better equipped to participate in an increasingly heterogeneous and complex society (Gurin, Dey, Hurtado, & Gurin, 2002). More specifically, diversity in a college setting can lead to enhanced learning and democracy outcomes. Learning outcomes include active thinking and academic skills and intellectual engagement. Democracy outcomes consist of racial and cultural understanding, perspective taking, and citizenship engagement. By increasing these educational outcomes students are more likely to leave college with skills needed to become leaders in a pluralistic democracy (Gurin et al., 2002).

If an important goal of higher education is to assist students in becoming more culturally competent, then fostering the interaction between international and domestic students can help colleges and universities reach this goal. As indicated above, international students are a continuously expanding segment of diversity on university campuses. They bring to the United States a wide variety of perspectives to which domestic students can be exposed. Both domestic and international students can learn from one another and expand their cross-cultural knowledge. Students who attend a school with a diverse population are more likely to enhance their cultural sensitivity and build the skills necessary to work effectively with people from a variety of backgrounds (Zhao et al., 2005). With the growing international student population in the United States, there is a greater need to understand their unique characteristics and find ways to help them adjust and succeed in the American higher education system. Helping international students persist through to graduation has the potential to cause both international and domestic students to address their surroundings with a greater openness to racial and cultural diversity.

To help international students adjust to the social and academic demands of college life, previous research suggests universities may wish to invest in resources that lead to an increase in students' satisfaction with advising and sense of belonging to campus. Students who feel a

psychological connection to their institution are more likely to persist (Hausmann, Schofield, &

Woods, 2007). Additionally, students who are satisfied with advising are more likely to be

retained (Crockett, 1978). "Students receiving effective academic advising tend to feel positive

not only about the process but the institution as well, and this positive attitude can be a strong

contributing factor to student persistence" (Crockett, 1978, p. 30). Furthermore, advisors may be

able to enhance students' sense of belonging by providing critical social support as they

transition and adjust to college life (Hoffman, Richmond, Morrow, & Salomone, 2002; Johnson

et al., 2007).

This study seeks to discover factors that predict undergraduate international student

satisfaction with advising and sense of belonging to the campus community. The present study

will explore how advisors can best assist students by examining institutional and cultural

variables that predict satisfaction with advising. After determining if and how each variable is

connected with advising satisfaction, advisors can examine their performance and may choose to

alter their practice to better align with student needs. If advisors can better understand how

variations in these factors change the advising that students desire, they can tailor their assistance

to maximize satisfaction with advising for each student. Additionally, the direct connection

between advising satisfaction and sense of belonging has never been examined. Thus, the

present study will explore this potential relationship in the hopes of better understanding

variables that contribute to international student adjustment and persistence.

Organization of the Study

The remaining chapters have been organized as follows:

Chapter two provides an in-depth analysis on the academic advising literature, broken up

by advising relationship and advisor-advisee activities. An overview of student country of

citizenship and acculturation literature is also provided. Each of the independent variables

discussed are connected back to the dependent variables of advising satisfaction, sense of

belonging, and ultimately international student retention. Chapter three covers the methodology

used for this study, including the demographics of the students who participated, instruments

used, procedures for data collection, and the research design used to analyze the data. Chapter

four provides the results of the study, including an analysis of the data, along with answers to the

research questions posed. Chapter five is a discussion of the results reported and also includes

the study's limitations as well as implications for researchers and practitioners interested in

improving international student academic advising satisfaction, sense of belonging, and retention.

CHAPTER II: Review of Literature

The following review of literature examines influences on international student advising satisfaction, sense of belonging, and persistence, including the influence of the advising relationship, advisor-advisee activities, acculturation, and country of origin. The prominent literature on each of these four areas will be presented below and their connection to advising satisfaction, sense of belonging, and retention will be examined. The chapter will conclude by proposing specific research questions and corresponding hypotheses that will be examined in an effort to contribute to the collection of advising knowledge where existing research suggests gaps exist.

Academic Advising Relationship

The nature of the relationship between advisor and advisee in a college setting has been a central theme in the academic advising literature over the past four decades. The topic has received a great deal of attention and sparked productive debate among the advising community. Prescriptive, developmental, and academically centered advising will be discussed chronologically and the reason for focusing specifically on these three types of advising will be made clear. Following this historical discussion on types of advising relationships, research pertaining to underrepresented students will be presented. Lastly, an overview of international student academic advising research will bring this section to a close.

Prescriptive and developmental advising. In 1972 two seminal articles were written, one by Crookston and the other by O'Banion, proposing a shift in the theoretical basis from which advisors should work. The historically unquestioned advising relationship found itself under review.   Crookston and O'Banion both argued for the need to transcend the prescriptive relationship, which was traditionally the standard relationship in a college advising setting

(Crookston, 1972; O'Banion, 1972). Prescriptive advising has often been compared to the

medical model. The advisor is analogous to the doctor and the advisee the patient, where the

doctor is the expert, makes a diagnosis, and prescribes a solution. Prescriptive advising is

typically tidy and quick. Once the advice is given the burden is placed on the student to carry

out the action prescribed. Crookston (1972) argued that academic advising should move toward

a developmental relationship where students are understood in a more holistic light. He stated,

"It follows that developmental counseling or advising is concerned not only with a specific

personal or vocational decision but also with facilitating the student's rational processes,

environmental and interpersonal interactions, behavioral awareness, and problem-solving,

decision-making, and evaluation skills" (Crookston, 1972, p. 78).   Crookston applied student

developmental concepts to academic advising for the first time and this connection reformed the

profession.

Around the same time as Crookston, O'Banion (1972) proposed an academic advising

model with similar objectives. He suggested the goal of advising was to assist students in

choosing a program of study that will improve their overall potential and included the following

dimensions: "(1) exploration of life goals, (2) exploration of vocational goals, (3) program

choice, (4) course choice, and (5) scheduling courses" (O'Banion, 1972, p. 10). He made the

connection between vocational goals and life goals, stating that who a person is and desires to be

determines his or her career choice. He believed that through the advising relationship students

could learn about most other services (e.g. financial aid, personal counseling, individual testing)

available on campus and he firmly believed counseling was the heart of academic advising.

O'Banion (1972) suggested college students explore their personal development, values, and

occupational choices with their advisor prior to selecting a specific program of study and tasks

such as class scheduling should be done with no assistance or with a counselor-aid. He was the

first to propose professional advisors, as opposed to faculty members, were best able to assist

students with the exploration process (O'Banion, 1972). When O'Banion (1994) revisited his

model years later, he changed his perspective on who should be doing advising, stating who

advises is not important but rather how well advising is conducted is what matters. Additionally,

he softened his stance against prescriptive advising, stating prescriptive activities formed a

critical foundation for the developmental approach.

Crookston and O'Banion laid the foundation for decades of advising theory discussion

that would follow. Winston and Sandor (1984) sought to develop a systematic, theoretically-

grounded instrument to measure developmental advising that was based on Crookston's work.

They placed prescriptive advising on one end of a continuum and developmental on the other

and asked students about their academic advising preferences. The Academic Advising

Instrument (AAI) was created and the researchers were the first of many to report students prefer

a developmental advising relationship rather than a prescriptive one (Winston & Sandor, 1984).

Ten years later, however, after the creation of the measurement tool and subsequently authoring

a book on developmental advising, Winston addressed the advising community, concerned about

developmental advising's lack of broad acceptance (Winston, Miller, Erder, & Grites, 1984;

Winston & Sandor, 1984; Winston, 1994). He proposed that the popularity of developmental

advising was limited, not because it was a weak theory, but because it had gone unnoticed by

those who hold the power in higher education. Although researchers were confirming its utility,

university leadership failed to notice. Winston (1994) reasoned this was because a university

community is made up of four cultures: collegial, managerial, negotiating, and developmental,

and the latter is often overshadowed by the others, especially during times of economic stress.

"Because the developmental culture is philosophically opposed to the exercise of traditional

formal authority to further its aims and has a distaste for the use of political power to accomplish

its goals, it is usually in the minority on most campuses" (Winston, 1994, p. 115). He concluded

by acknowledging the uncertain utility of developmental advising along with a call for more

research to be conducted. The advising community responded to his request and over the next

two decades developmental advising became the most widely studied theory of advising (Daller,

Creamer, & Creamer, 1997).

At the same time Winston called for more research on developmental advising, Rooney

(1994) was praising the founders for their visionary thinking. Although Crookston and

O'Banion's theories did not explicitly originate from diversity discussions, Rooney points out

their ideas were well ahead of their time as their theories are suitable for working with diverse

populations. He discussed the demographic changes in higher education and the challenge of

providing "advising services to all students in a way that is organized, differentiated, systematic,

and easily accessible" (Rooney, 1994, p. 37) He suggested that Crookston and O'Banion laid the

foundation from which the field should work and moving forward it is necessary to foster

collaboration between academic affairs and student services to meet the wide variety of student

needs.

In addition to Winston and Sandor (1984) reporting students' preference for

developmental advising over prescriptive, other researchers have come to this conclusion as well.

As research in the field developed, more variables were introduced, thereby refining the advising

relationship knowledge and uncovering individual differences. Additionally, Rooney's synthesis

of Crookston's and O'Banion's ideas reinforced the need for exploring the unique needs of each

student.

Several studies have expanded the knowledge available regarding the advisor-advisee relationship. For example, Alexitch (1997) used the AAI with a group of undergraduate students attending a midsized Canadian university. She found that advising satisfaction positively correlated with developmental advising style and that students would prefer a more developmental advising style than they had received. Alexitch also found individual differences in preferred advising style. For example, females preferred a higher level of developmental advising than did males and students with lower grades preferred a higher level of developmental advising than those with higher grades. Additionally, learning-oriented, as opposed to grade-oriented students were more concerned with the style of advising than the content of the session. Alexitch (2002) validated these findings with an additional study conducted several years later with a larger group of participants. In addition, she added a help-seeking variable and found that students who indicated a tendency to request help were more likely to prefer developmental advising.

Similar to Alexitch's findings, Crockett and Crawford (1989) found a preference for developmental advising among the undergraduate students they surveyed. They found individual differences as well. However, a portion of their findings contradicted Alexitch's results. Crockett and Crawford (1989) found students that experienced academic difficulties were more dependent on advisors for decision-making, which is more characteristic of prescriptive than developmental advising. To further complicate findings, Mottarella, Fritzsche, and Cerabino (2004) found no gender differences when it came to advising style preference.

Although studies were confirming students' satisfaction with developmental advising, it did not mean students did not value prescriptive advising (Fielstein, 1994). Researchers were discovering that students valued both. A study conducted at a midsized Midwest university

confirmed that students appreciated developmental advising, as they reported wanting to receive more of it than they had; however, the interest in developmental advising did not decrease the importance placed on prescriptive advising. Students actually reported prescriptive items were of greater importance to them than developmental (Fielstein, Scoles, & Webb, 1992). The researchers hypothesized that although the developmental approach is desired, students value crucial information disseminated by the advisor as well.

As evidenced by the studies outlined above, there are some common trends but also discrepancies in the empirical data regarding the academic advising relationship. This matter will be revisited below when further research is presented on advising style as it relates to specific populations. Prior to reviewing additional studies, an overview of alternative advising relationship theory is warranted.

Academically centered advising. While empirical analysis was advancing the prescriptive versus developmental advising discussion, a new, opposing style was introduced in the literature as an alternative. A pair of university administrators argued that developmental advising was vague, had lost sight of the central mission of higher education, and therefore must be abandoned (Hemwall & Trachte, 1999). They suggested that developmental advising deemphasizes or ignores academic learning and they instead offered the educational concept of praxis as an appropriate way to think about academic advising.

Hemwall and Trachte (1999) were concerned developmental advising moved the focus away from the curriculum and unnecessarily toward student development. Instead they pushed for praxis – the idea that a person can understand and critique the beliefs, practices, norms, and assumptions that provide meaning to his or her world. According to Hemwall and Trachte (1999), "If academic advising can be considered a form of praxis, it can be reconnected with

liberal learning, the core of which includes the proposition that students should acquire a capacity for critical reflection upon the world in which they live" (p. 116). They contended that advising should focus on the main educational mission of the school along with the students' individual experiences only to the extent those experiences inhibit or allow successful learning.

Around the same time, Lowenstein (1999) proposed a similar alternative to developmental advising.   He suggested the field move its focus away from personal growth and toward academic learning. He called this approach academically centered advising and later went on to describe it as a way of advancing the logic of the curriculum (Lowenstein, 2000). Lowenstein explained that above and beyond the institution's rationale for the general education curriculum, students must create their own meaning out of the curriculum they follow. He suggested advisors align themselves with academic affairs as opposed to student services and become curriculum experts. Lowenstein (2005) reasoned that faculty should be the experts of particular courses and advisors should be the experts of the overall curriculum, helping students relate material from one course to others.

In response to the newly proposed academically centered advising orientation, the assertions made within this literature regarding developmental advising, and the growing popularity of developmental advising in general, Grites and Gordon (2000) revisited the fundamental principles of developmental advising. They were worried Hemwall and Trachte (1999) did not fully understand the foundational beliefs behind the theory. Their main concern was the claim that developmental advising had lost sight of the central mission of higher education and was too focused on personal development, to the point of excluding intellectual development. According to the rebuttal, the authors argued the foundation of developmental advising was never separated from academics. Prior to the field shifting from prescriptive to

developmental, the focus of advising was almost exclusively on academics. To emphasize the

difference between prescriptive and developmental, the early theorists emphasized the new,

holistic, personal development component. Vocational and academic decision-making was

mentioned but they focused their discussion on the new addition, attempting to integrate, not

separate, academic goals and personal development. Grites and Gordon (2000) found it ironic

that Hemwall and Trachte (1999) thought advising needed to be reconnected with liberal

learning because, they proposed, it was never disconnected. In summary, they wanted to make

clear that the goal of developmental academic advising is to facilitate student learning in all three

contexts (i.e. educational, career, and personal) identified by Winston and colleagues (1984).

One additional component that supports the argument Grites and Gordon put forth can be seen in

one of the founding articles. O'Banion (1972) does not abandon the curriculum in his

developmental advising discussion, in fact he states, "Academic advising is, of course, intricately

related to curriculum and instruction" (p. 14).

In addition to Grites and Gordon, another theorist wrote a series of articles explaining

how academically centered advising is woven into the developmental advising theory. In

reviewing prescriptive advising, Appleby (2001a) discussed its potential for success, but he also

suggested a major drawback of prescriptive advising is that it does not allow students to develop

a sense of responsibility for making their own academic choices. Within a prescriptive advising

framework students may never move beyond choosing courses simply to satisfy requirements on

a checklist. He goes on to discuss developmental advising as the framework advisors use to help

students understand learning objectives outlined by a department and the school's rationale for

the curriculum requirements. This information helps students formulate specific reasons for

mastering the course materials. Making meaning of the course materials allows students to

develop transferrable skills that can be applied in numerous settings, creating human capital

(Appleby, 2001b). Appleby concluded by reminding readers of an underlying goal of

developmental advising, which he also argued is the purpose of higher education – to not only

help students increase their employability but to become well-rounded human beings (Appleby,

2001c). The author attempted to show how assisting students to create the logic of their

curriculum was a fundamental component of the developmental advising relationship.

The literature synthesis above has attempted to display a healthy debate in the academic

advising community. The contributing authors over the past four decades have helped to refine

and strengthen numerous ideas and retire unverified or outdated philosophies. The authors of

Academic Advising: A Comprehensive Handbook offer their predictions on the direction of the

field with this statement:

> It is reasonable to expect to see major works that build upon the groundwork laid by
>
> Hemwall, Trachte, Lowenstein, and others. At the same time, it is reasonable to expect
>
> that developmental theory will continue to engage and inform practice and research in
>
> academic advising for many years to come. (Gordon et al., 2008, p. 32)

Although, additional theories of advising (e.g. intrusive, student-centered, appreciative) have

emerged, none have come close to garnering the amount of attention developmental advising has

received.

Advising underrepresented students. Most of the academic advising relationship

research above was conducted using primarily white, middle class participants. Eventually

researchers began to test the utility of relationship styles with underrepresented students. Studies

conducted with racially and ethnically diverse participants will be reviewed below, followed by

an overview of advising relationship research and the international student population.

Racially and ethnically diverse students and the advising relationship. As the research

conducted on traditional students started to demonstrate, developmental and prescriptive

advising need not be viewed as an either/or choice. Scholars attempting to understand diverse

groups supported the utility of both. The increasing diversity in the college population made

developmental advising an important theoretical framework because it supported students'

individual differences and lead to overall student satisfaction and retention (Coll, 2008).

However, Brown and Rivas (1994) proposed early developmental theorists were too tough on the

prescriptive style. They offered four reasons why prescriptive advising may be appropriate for

minority students: (1) Students may be from a culture that emphasizes hierarchical patterns of

interaction, making a nondirective approach stressful and confusing for students. (2) A caring

and trusting relationship is important but advisors may need to take the lead in its formation.

This could require direction and prescriptive techniques from the advisor in order to commence.

(3) Socialization experiences may have made minority students mistrust bureaucratic agents (e.g.

advisors) and advisors may need to take the lead early on, using the prescriptive style, to move

the relationship on to more complex interactions, and (4) Expertness may need to be exhibited

before a student is willing to build an ongoing relationship with an advisor. In conclusion, the

authors explained that prescriptive strategies used in the context of developmental advising with

minority students demonstrated care and compassion, which can lead to a greater satisfaction

with advising.

Additional scholars have pushed for the need for students to feel cared for and argued

that developmental advising could be used to achieve this goal. Heisserer and Parette (2002)

suggested prescriptive advising is necessary, but more importantly, students need to feel valued

and cared for by the university and an advisor following a developmental approach can achieve

this objective. The same sentiment was echoed by Drake (2011) who argued that above all, advising should be about the relationship between the advisor and advisee and their rapport should make the student feel cared for and enhance his or her connection to the institution. Furthermore, scholars have proposed that advising grounded in developmental theory is necessary due to the increasing diversity in the student body. They contend that developmental theory allows the flexibility needed to work effectively with diverse students (Jeschke, Johnson, & Williams, 2001).

Researchers have similarly contended that a one-size-fits-all model of advising is not appropriate. A research group reviewed academic advising literature and identified 12 functions of advising that were commonly discussed. They found that ethnicity significantly predicted the importance ratings of 9 of the 12 functions and ethnic minority groups rated the functions differently than white students. They conclude by explaining students value both prescriptive and developmental advising but what matters the most is that students receive good advising on the functions they consider the most important. Seeing that not all students prescribed the same rating, the authors proposed advisors need to be flexible in their approach and tailor their sessions to meet individual needs (Smith & Allen, 2006). One lens cannot be used to view the experiences and skills of all students. Developmental advising allows for unique interactions between student and advisor, tailored to the individual student's needs. Additionally, developmental advising is linked to the educational mission of the university allowing advisors to advance the teaching and learning mission of higher education (Association of American Colleges and Universities, 2006; Campbell & Nutt, 2008).

International students and the advising relationship. The academic advising literature on racially and ethnically diverse groups provides a useful foundation for understanding the

international student population, as many of them will identify with a racial or ethnic minority status upon arriving in the United States. In addition to unique challenges minority students face in predominately white institutions, international students must navigate an additional layer of complexity that is associated with moving to a new country. Advisors can help create a positive environment for students and may be their only consistent connection to the university that can help them make sense of their educational process. Fortunately, international students see academic advising as a very important service (Cadieux & Wehrly, 1986; Charles & Stewart, 1991). Literature has shown that international students appreciate developmental advising strategies and they appreciate advisors who help them apply their learning. Additionally, they value advisors who take the time to become familiar with their culture and academic background and, in general, are knowledgeable about educational systems in other countries (Cadieux & Wehrly, 1986). Advisors working from a developmental framework embrace these tasks and view them as essential to quality advising.

Similar to the literature on domestic student advising, it has become apparent that international students appreciate prescriptive advising interactions as well. This may be especially true for international students because they tend to expect a more formal relationship with their academic advisor. A completely developmental approach may seem too relaxed and informal to them, as they may desire concrete answers and firm direction (Charles & Stewart, 1991). They may seek hierarchical relationships in their new educational system due to discomfort that arises with mutuality, and therefore a prescriptive approach, at least in the beginning, may be well-received (Goto, 1999).

A study comparing international and domestic student educational engagement outlined advising strategies that could be employed to bolster the success of international students. The

National Survey of Student Engagement (NSSE) yielded responses from 2,780 international

students, out of a pool of 71,260 total student responses (Zhao et al., 2005). Researchers found

that international students were more engaged than domestic students in their first year.

International students reported engaging in more student-faculty interaction and educationally

purposeful activities than domestic students.   This gap diminished by their senior year when

there was little difference in student engagement between the two groups. Exceptions included

American students' greater involvement in community services and international students' larger

gains in personal and social development as well as general education progress. Examining

individual differences highlighted the need for advisors to build relationships with their advisees

and to do so they needed to understand and appreciate each student's unique traits, values, and

circumstances. Nevertheless, this study pointed out the similarities in the two groups,

recognizing that international students could benefit from much of the empirically-supported

advising theory developed using primarily domestic participants.

Conflicting results and a lack of research involving the international student population

indicate a need for more research surrounding the advising relationship and its connection to

advising satisfaction and sense of belonging. The type of relationship international students

build with their advisors may impact their persistence, and further investigation is warranted,

with the goal of improving international student advising. The present study will use the popular

Academic Advising Inventory to evaluate international students' perceptions of their advising

relationships.

Advisor-Advisee Activities

In addition to the advising relationship, the advisor-advisee activities have received

attention in higher education literature. Although researchers agree on their importance, advising

activities have received less attention in the literature than the advising relationship. The section below will focus on advisor-advisee activities while also describing overlap between the two variables, as they are inextricably linked. To begin, an overview of advisor-advisee activities will be presented followed by empirical results of advising activities-related research. The activities discussion will conclude by suggesting additional advising topics that should be studied based on the unique characteristics, described above, of international students.

Although O'Banion's articles focused primarily on the advising relationship, it would be hard to discuss the style of advising without touching upon what would be discussed within the context of the developing relationship. He pointed out five dimensions he believed academic advising should include: (1) exploration of life goals, (2) exploration of vocational goals, (3) program choice, (4) course choice, and (5) scheduling courses (O'Banion, 1994).

Other researchers suggested similar topics. The Academic Advising Inventory, mentioned above, included a section examining the advising relationship and another examining the advising activities. The AAI broke the content into five categories: (1) exploring institutional policies, (2) providing information, (3) personal development and interpersonal relationships, (4) registration and class scheduling, and (5) teaching personal skills (Winston & Sandor, 2002).

Not everyone agrees on the activities that should be covered. From the discussion surrounding the advising relationship, it can be gathered that Lowenstein would place great emphasis on discussing coursework and the curriculum and would not find academic advising the appropriate place for students to learn personal skills, focus on personal development or interpersonal relationships (Lowenstein, 1999). Similarly, Braxton & McClendon (2002) focused specifically on course selection in their suggestions for academic advising activities. They argued that advisors should encourage their advisees to consider teaching practices of the

faculty when selecting courses. More specifically, they should seek out faculty who facilitate class discussion, encourage higher order thinking, and have received favorable course evaluations. They proposed that students who reflected upon faculty teaching practices prior to selecting courses were more likely to persist to graduation.

     Activities preferred by students. Studies conducted with the college student population help to clarify what activities may be important for advisors to include in their sessions. The authors of the AAI found that the frequency of advising activities was positively correlated with advising satisfaction (Winston & Sandor, 2002). Similarly, a study that administered the AAI, thereby gathering data on the five activity categories, found that advising satisfaction positively correlated with the frequency for all five types of activities (Alexitch, 1997). Furthermore, this study revealed that the more grade-oriented (as opposed to learning-oriented) students were the more interested they were in the activities of the advising session rather than the advisor-advisee relationship. Additionally, the researcher asked students about their preferred frequencies for the five categories and found that students' preferred frequencies were significantly higher than the actual frequencies of the advising activities. Finally, the same study confirmed that the frequency of activities positively correlated with the amount of time spent with the advisor.

     Another study examining advising activities preference among 388 minority students at five predominately white institutions asked them to indicate whether they were comfortable approaching their academic advisor to discuss six different topics. The activities, from those rated most comfortable to least comfortable, were: (1) to sign my registration or other forms (77%), (2) concerning my academic questions or problems (69%), (3) for career planning (60%), (4) to write my letters of recommendations (54%), (5) for personal counseling (46%), and (6) for decision making (46%) (Burrell & Trombley, 1983).

A third study examined 12 advising functions that operationalized five constructs and asked students to rate their importance and indicate their satisfaction with each. The five constructs were: (1) integration (function examples: advising that helps students connect their academic, career, and life goals; advising that assists students with choosing out-of-class activities, e.g., part-time employment, internships, participation in clubs or organizations, that connect their academic, career, and life goals), (2) referrals (function examples: when students need it, referral to campus resources that address academic problems; when students need it, referral to campus resources that address nonacademic problems), (3) information (function examples: assisting students with understanding how things work at this university – timelines, policies, registration, financial aid, grading, graduation, petitions, and appeals; ability to give students accurate information about degree requirements), (4) individuation (function examples: taking into account students' skills, abilities, and interests in helping them choose courses; knowing the student as an individual), and (5) shared responsibility (functional example: encouraging students to assume responsibility for their education by helping them develop planning, problem-solving, and decision-making skills) (Smith & Allen, 2006). Results indicated that students ranked accurate information as their top priority but even the lowest ranked item was still rated as important. The researchers included an ethnicity variable and found that student ethnicity significantly predicted importance rating of 9 of the 12 functions. In general, Asian American, African American, and students reporting multiple ethnicities most often rated the functions differently than white students, displaying yet again that understanding individual differences in advising is important.

The advising activities suggested by scholars and reported desirable by students cover a wide variety of topics. Theorists and students agree on many items, yet complete consensus is

lacking. Additionally, much of the advising research that examined advising session content did not fully incorporate the activities that literature indicates would be ideal for working with international students. The following section will describe what scholars have indicated are important advising topics that should be addressed with international students. In doing so advisors can facilitate impactful advising sessions, leading to increased student satisfaction and ultimately retention.

      Activities for international students. As indicated in the Background of the Study section above, international students face unique challenges. If advisors would like to improve advising satisfaction and increase international student sense of belonging and retention they must be mindful of their unique needs when interacting with these students. Theorists have recommended that advisors become familiar with international students' cultures and academic backgrounds (Hood & Schieffer, 1984). Others have strengthened the suggestion, arguing that advisors should have a *comprehensive* understanding of their advisees' cultural backgrounds (Sue, Arredondo, & McDavis, 1992; Sue & Sue, 1990). Scholars have recommended that for advisors' work to be appreciated by advisees they must be culturally sensitive, and to do so they must ask questions to learn about the individual (Charles & Stewart, 1991). To further enhance the experience, advisors should not only learn about the advisees' cultural and academic backgrounds, they should also acknowledge potential cultural differences (Cornett-DeVito & Reeves, 1999).

      In an attempt to summarize the literature outlining how to best work with international students, the authors of *Academic Advising: A Comprehensive Handbook* gave specific recommendations. In its chapter entitled "Advising Students of Color and International Students" the authors listed seven strategies for working with these students: (1) advise the whole student,

(2) understand the student's family background, (3) provide mentorship, (4) build trust to make personal meaning, (5) understand identity, (6) develop multicultural competencies, and (7) be in the student's world. Several of the strategies can be evaluated through advising activities questioning.

Several scholars have pointed out the need for advisors to discuss additional, distinctive topics to better understand how to best assist international students. The foundational advising literature provides advisors with a solid base from which to work, however, more research is needed to test the suggestions presented in the theoretical discussion regarding international student needs. For example, like most measurement tools related to academic advising, the Academic Advising Inventory does not directly include questioning about topics that have been suggested to be important for increasing international student advising satisfaction.   The AAI, which is the most widely used instrument to investigate advising (Daller et al., 1997), could benefit from supplemental questions that drill down into the needs of this unique population.

The literature leading up to the present study left the connection between advising activities and advising satisfaction and sense of belonging unclear, especially among the international student population. The present study will use the AAI along with newly developed, theoretically-based questions to examine this connection.

Country of Citizenship

International students from the same regions or countries may face similar challenges adjusting to the educational system in the United States. The college experience is interpreted differently by students depending on their country of origin and home culture (Zhao et al., 2005).

Studies have found similarities based on international student country of origin regarding help-seeking behaviors (Dadfar & Friedlander, 1982; Oliver, Reed, Katz, & Haugh, 1999). One

study surveyed students from 75 countries and found that European and Latin American international students held more positive perceptions toward seeking professional psychological assistance than did African and Asian students (Dadfar & Friedlander, 1982).

Another research group reviewed data from 248 undergraduates at a private, midsized, Midwestern university and also confirmed between-group differences in mental health help-seeking behaviors (Oliver et al., 1999). Furthermore, between-group differences can be seen as international students adjust to a new educational environment. Stress generated by language limitations and interactions with authority figures can be predicted based on country of origin among international students (Charles & Stewart, 1991). For example, students who grew up in a country where their first language was English or are from an individualistic society, similar to the United States, face less of a challenge adjusting to these two factors than students' who are non-native English speakers or from collectivistic societies.

Moreover, sociocultural stressors such as racial discrimination and prejudice are encountered at different rates depending on race, which often correlates with students' home countries (Chen, 1999). Additionally, when international student data was disaggregated by ethnic group, researchers found that certain groups struggled more than others when it came to different topics. For example, Asian international students had the most difficulty when it came to learning a new language and making new friends. European students reported being apart from family and friends was their greatest stressor, and more specifically, southern Europeans indicated they were the most homesick (Fritz, Chin, & DeMarinis, 2008).

Understanding general trends among international students from particular countries can aid advisors in the work they do. Advisors who familiarize themselves with common cultural values, religions, political systems, and customs show international students it is worth their time

to improve their cultural competencies and learn about their backgrounds. As researchers have

indicated, learning about students' backgrounds position advisors to better assist students in

adjusting to a new academic environment (Cadieux & Wehrly, 1986). This understanding will

hopefully lead to international students' increased satisfaction with advising and sense of

belonging to campus.

Acculturation

Although learning about cultural trends and students' countries of citizenship can

enhance advising quality, advisors must be careful not to make broad generalizations about their

students based on their home countries. In addition to between-group differences, variation

within cultural groups should be examined. One of the most important measures of this variation

is acculturation (Zane & Mak, 2003).

Acculturation has been defined as multidimensional change in cultural values and

behaviors that results from continuous contact between two distinct cultural groups (Berry, 1997,

2003; Stephenson, 2000). The orthogonal model of acculturation was developed to modify an

earlier bipolar model that suggested acceptance of one culture must come at the expense of the

other (Oetting & Beauvais, 1991). Instead, it was proposed that a person could embrace both

cultures and doing so was seen as an asset. The orthogonal model is made up of the bipolar

model along two dimensions – the value of maintaining one's identity and characteristics and the

value of maintaining one's relationship with the larger society, and also includes two

components – attitudes and behaviors. Berry (1992) defined four acculturation strategies in the

orthogonal model: assimilation, integration, separation, and marginalization. Assimilation

involves abandoning one's home cultural identity and adopting the new culture. Integration

refers to those individuals who retain their cultural identity while at the same time join the larger

societal framework. Separation occurs when individuals maintain their ethnic identity and

traditions and do not absorb the culture of the dominant society. Finally, marginalization

happens when one loses a cultural and psychological connection with the dominant society and

the traditional culture (Berry, 1997).

Research conducted supports the existence of these four distinct clusters and also found

that the integration group was the largest of the four strategies (Berry, Phinney, Sam, & Vedder,

2006). Acculturation can occur at the group or individual level. Group level changes include

physical, biological, political, economical and cultural, whereas individual changes are

psychological and can lead to behavioral shifts. Behavioral shifts occur when one's values,

attitudes, abilities, and/or motives change due to the acculturation process (Berry, 1992).

Research has suggested there are large group and individual differences in acculturation.

The amount of stress experienced and how well individuals psychologically and socioculturally

adapt varies. In general, those pursuing integration strategies experience the least amount of

stress and adapt better than the other three groups. Furthermore, individuals taking a

marginalization approach have the hardest time, while those assimilating or separating

experience intermediate amounts of stress and adaption (Berry, 2005).

Researchers took Berry's work and applied the findings to academic advising. They

suggested students may experience cultural mistrust, if victimized by acts of prejudice and

racism, as they adjust to a new culture (Schlosser, Talleyrand, Lyons, Kim, & Johnson, 2011). It

is important for advisors to consider students' acculturation strategies. Advisors may need to

play a stronger role in helping marginalized students and those experiencing cultural mistrust as

they navigate the demands of a new educational environment (Schlosser et al., 2011).

Many measurement tools have been developed to evaluate acculturation. They are

typically self-report surveys that assess behaviors and attitudes related to acculturation. Most

often they are designed to examine acculturation in one particular ethnic group, such as Asian

American or Mexican American. Researchers conducted a content analysis of 21 popular

acculturation scales to evaluate the content validity of the inventories (Zane & Mak, 2003).

They found that the majority of the tools used a bipolar model, where acculturation was

measured along only one continuum, pinning the home culture against the dominant culture. The

few that did not use the bipolar approach measured acculturation of the home and the dominant

cultures separately. The researchers identified 10 content categories evaluated in the 21 tools.

The most popular categories measured were language use/preference, daily living habits, social

affiliations, and cultural identity/pride. The article concluded by emphasizing the importance of

communication style, suggesting helping professionals need to be especially aware of this

variable as it tends to change with acculturation. This change may affect important interpersonal

processes between the advisor and the advisee.

One of the few acculturation tools developed to utilize a multidimensional review of

acculturation was the Stephenson Multigroup Acculturation Scale (SMAS). A linear (i.e.

bipolar) model ignores the possibility that individuals may preserve various elements of their

home culture while simultaneously connecting with the dominant society. To move away from

this bipolar model, the SMAS was designed to examine both dimensions independently.

Additionally, the SMAS incorporated questions related to the top four content areas found in the

measurement analysis conducted by Zane and Mak (2003), demonstrating peer consensus, which

strengthens its validity. In addition to language use/preference, daily living habits, social

affiliations, and cultural identity/pride, the SMAS also included questions on cultural traditions and perceived prejudice/discrimination.

The SMAS was not designed for use with one specific cultural group and was instead developed to be used by multiple groups. The author acknowledged that "it is indisputable that diverse groups will have differing experiences rooted in their respective cultures; however, it is also likely that there will be common experiences across acculturating groups" (Stephenson, 2000, p. 78). The present study will use the SMAS to evaluate the acculturation of international students because of its multidimensional design, content validity, and versatility in measuring across ethnic groups.

Summary of Literature Review

An overview of the literature related to the independent variables (i.e. advising relationship, advisor-advisee activities, country of origin, and acculturation) was provided above. The nature of the relationship between advisor and advisee in a college setting has been a central theme in the academic advising literature over the past four decades. The tension between developmental and prescriptive advising has been the primary focus in the advising relationship discourse. Students tend to value developmental advising over prescriptive but research has shown that students find both important (Alextich 1997, 2002; Crockett & Crawford, 1989; Fielstein, Scoles, & Webb, 1992; Brown & Rivas, 1994). Scholars suggest one does not necessarily need to come at the cost of the other, but instead advisors should incorporate both, depending on the subject matter (e.g. academic policies, career planning) and specific student characteristics (e.g. gender, ethnicity, year in school, help-seeking behaviors). More specifically, research has shown that *international* students appreciate both developmental and prescriptive academic advising (Charles & Stewart, 1991; Goto, 1999).

The second independent variable discussed, advisor-advisee activities, has been broken into dimensions such as course selection, exploring life and vocational goals, program choice, personal development and interpersonal relationships, providing information and personal skills (O'Banion, 1994; Winston & Sandor, 2002; Lowenstein, 1999; Braxton & McClendon, 2002). Not all scholars are in agreement on what topics should be covered by advisors and the level of importance placed on each; however, it does appear that the frequency of advising activities in general, positively correlates with students' satisfaction with advising (Alexich, 1997). Additionally, students say they desire a higher frequency of advising activities than they actually receive. Specifically for international students, theorists suggest advisors should facilitate activities that allow them to (1) advise the whole student, (2) understand the student's family background, (3) provide mentorship, (4) build trust to make personal meaning, (5) understand identity, (6) develop multicultural competencies, and (7) be in the student's world (Gordon, Habley, Grites & Associates, 2008).

Country of citizenship was the third independent variable addressed. International students from the same regions or countries may face similar challenges adjusting to the educational system in the United States. The college experience is interpreted differently by students depending on their country of origin and home culture (Zhao et al., 2005). Research has shown trends by country of citizenship in help-seeking behaviors, language difficulties, interactions with authority figures, racial discrimination, development of new friendships, and homesickness (Dadfar & Friedlander, 1982; Oliver et al., 1999; Charles & Stewart, 1991; Chen, 1999; Fritz, Chin, & DeMarinis, 2008).

The final independent variable covered above was acculturation. Whereas country of citizenship compares between-group differences, acculturation examines within-group variance.

The orthogonal model of acculturation is made up of the bipolar model along two dimensions –

the value of maintaining one's identity and characteristics and the value of maintaining one's

relationship with the larger society, and also includes two components – attitudes and behaviors.

This model leads to the four acculturation strategies of assimilation, integration, separation, and

marginalization (Berry, 1992). Research has suggested there are large group and individual

differences in acculturation. Typically, those pursuing integration strategies experience the least

amount of stress and adapt better than the other three groups. Additionally, individuals taking a

marginalization approach have the hardest time, while those assimilating or separating

experience intermediate amounts of stress and adaption (Berry, 2005).

The four primary independent variables: advising relationship, advisor-advisee activities,

country of origin, and acculturation, will be examined to determine if they are predictors of

international students' satisfaction with academic advising, sense of belonging to campus, and

intent to persist to graduation. Satisfaction with academic advising and sense of belonging will

serve as dependent variables, but additionally, they will both act as independent variables in a

corresponding analysis to determine if they predict intent to persist.

Purpose, Research Questions, and Hypotheses

The purpose of this study is to fill a gap in the current literature on international student academic advising by exploring institutional and cultural factors that may predict satisfaction with academic advising, sense of belonging, and intent to persist among undergraduate international students. Additionally, the study will investigate an alternative to Tinto's college student departure theory by examining the relationship between sense of belonging and intent to persist in international college students.

Research questions. The following questions and hypotheses will be addressed in this study:

Research Question 1:

Are there ethnic group differences by *countries of origin* in *advising satisfaction* among international college students?

Hypothesis 1: There will be country of citizenship group differences in advising satisfaction.

Research Question 2:

Do *advising relationship*, *advisor-advisee activities,* and *acculturation* predict *advising satisfaction* among international college students?

Hypothesis 2a: A developmental advising relationship will predict higher levels of advising satisfaction.

Hypothesis 2b: A higher frequency of advisor-advisee activities will predict higher levels of advising satisfaction.

Research Question 3:

Do *advising relationship, advisor-advisee activities, acculturation*, and *advising satisfaction* predict *sense of belonging to campus* among international college students?

Hypothesis 3a: A developmental advising relationship will predict higher levels of sense of belonging.

Hypothesis 3b: A higher frequency of advisor-advisee activities will predict higher levels of sense of belonging.

Hypothesis 3c: Greater satisfaction with academic advising will predict a greater sense of belonging.

Research Question 4:

Do *advising relationship, advisor-advisee activities, acculturation, advising satisfaction,* and *sense of belonging* predict *intent to persist to graduation* among international college students?

Hypothesis 4a: A developmental advising relationship will predict higher levels of intent to persist.

Hypothesis 4b: A higher frequency of advisor-advisee activities will predict higher levels of intent to persist.

Hypothesis 4c: Greater satisfaction with academic advising will predict a greater intent to persist.

Hypothesis 4d: Greater sense of belonging will predict a greater intent to persist.

CHAPTER III: Methodology

This study investigated the influence of the academic advising relationship and activities, acculturation, and country of citizenship on advising satisfaction as well as the influence of advising satisfaction on sense of belonging among U.S. undergraduate international students. Additionally, it explored the relationship between the advising relationship, advisor-advisee activities, acculturation, advising satisfaction, and sense of belonging on intent to persist to graduation among international college students. The following chapter includes information on the participants, survey instruments used, procedures for data collection, and the analytic strategies employed.

Participants

International undergraduate students were recruited from a large, private, West Coast, research university during a one-month period in the fall semester of 2012. A total of 467 students volunteered and participated. Of those participants, 322 completed the survey. An independent-samples t-test was conducted to compare the age of complete and incomplete responses. There was no significant difference found. Additionally, Chi-square tests for independence indicated no significant difference between complete and incomplete responses when it came to gender, entry status (i.e. freshman or transfer), geographic region of country of origin, and parents' annual income. An additional 21 survey responses were omitted because the participants reported being graduate students. A total of 301 undergraduate student survey responses were used in the final data analysis. Participants in the sample ranged in age from 17 to 33 years old ($M = 20.51$ years, $SD = 2.13$). As shown in Table 1, the sample was comprised of 57.5% (n = 173) female students and 42.4% ($n = 128$) male students.

Table 1
Frequency Distribution of Student Participants

	N	Percentage
Gender		
Female	173	57.5
Male	128	42.4
Age		
17-20	166	55.2
21-24	124	41.2
25-28	8	2.6
29-33	3	1.0
Year in School		
Freshman (0-32 units)	61	20.3
Sophomore (33-64 units)	82	27.2
Junior (65-96 units)	78	25.9
Senior (97+ units)	80	26.6
Entry Status		
Freshman	204	67.8
Transfer	93	30.9
Living in U.S.		
< 1 year	61	20.3
1-2 years	74	24.6
2-3 years	59	19.6
3-4 years	55	18.3
4+ years	51	16.9
Studying Current Degree		
< 1 year	75	24.9
1-2 years	80	26.6
2-3 years	68	22.6
3-4 years	56	18.6
4+ years	19	6.3
Cumulative GPA		
1.0-1.99	1	0.3
2.0-2.99	29	9.6
3.0-3.5	91	30.2
3.51-4.0	100	33.2
Do not have one yet	80	26.6

Participants reported 40 countries of citizenship, with the top seven countries, China ($n =$ 92, 30.6%), South Korea ($n = 24$, 8%), Canada ($n = 20$, 6.6%), India ($n = 19$, 6.3%), Hong Kong ($n = 17$, 5.6%), Malaysia ($n = 17$, 5.6%), and Taiwan ($n = 17$, 5.6%), making up 68.3% of the total respondents. The complete country of citizenship frequency distribution of the sample is presented in Table 2. As a point of comparison, the top seven countries of citizenship for the entire undergraduate international student population at the institution were as follows: China (29.1%), South Korea (14.5%), Canada (8.3%), Indonesia (6.2%), India (5.2%), Hong Kong (5.1%), and Taiwan (4%).

Participants' reported time living in the United States ranged from one month to 15 years, with an average of 29.35 months $(SD = 25.55)$. They also reported how long they have been studying for their current degree, which ranged from one month to 13 years, with an average of 22.48 months $(SD = 18.14)$. Students' academic class, entry status (i.e. freshman or transfer), as well as their self-reported GPAs are also presented in Table 1.

When asked about their annual family income, 13 participants (4.3%) indicated a household income of under $25,000, 22 participants (7.3%) indicated between $25,001-$50,000, 64 participants (21.3%) indicated between $50,001-$75,000, 63 participants (20.9%) indicated between $75,001-$100,000, 70 participants (23.6%) indicated between $100,001-$150,000, and 60 participants (19.9%) reported an annual family income of over $150,000. Similarly, participants were also asked to describe their socioeconomic status (SES) of their families. The most frequently reported class was upper middle class ($n = 149$, 49.5%), followed by middle class ($n = 112$, 37.2%). Complete income and SES frequency information is reported in Table 3. Comparing self-reported income and class across cultures should be done with caution, as undergraduates may not have accurate knowledge of their parents' financial situation.

Table 2
Frequency Distribution of Country of Citizenship

	N	Percentage
China	92	30.6
South Korea	24	8.0
Canada	20	6.6
India	19	6.3
Hong Kong	17	5.6
Malaysia	17	5.6
Taiwan	17	5.6
Indonesia	16	5.3
Singapore	14	4.7
Mexico	8	2.7
Japan	7	2.3
Brazil	5	1.7
United Kingdom	5	1.7
Australia	3	1.0
Philippines	3	1.0
Thailand	3	1.0
Turkey	3	1.0
Columbia	2	0.7
Costa Rica	2	0.7
Kazakhstan	2	0.7
Vietnam	2	0.7
Cambodia	1	0.3
Chile	1	0.3
France	1	0.3
Germany	1	0.3
Greece	1	0.3
Hungary	1	0.3
Iraq	1	0.3
Kenya	1	0.3
Kuwait	1	0.3
The Netherlands	1	0.3
New Zealand	1	0.3
Norway	1	0.3
Pakistan	1	0.3
Panama	1	0.3
Portugal	1	0.3
Russia	1	0.3
South Africa	1	0.3
Sri Lanka	1	0.3
Venezuela	1	0.3

Table 3
Frequency Distribution of Student Class and Income

	N	Percentage
Socioeconomic Status		
Working Class	2	0.7
Lower Middle Class	6	2.0
Middle Class	112	37.2
Upper Middle Class	149	49.5
Upper Class	26	8.6
Family Income		
Under $25,000	13	4.3
$25,001-50,000	22	7.3
$50,001-75,000	64	21.3
$75,001-100,000	63	20.9
$100,001-150,000	71	23.6
Over $150,000	60	19.9

As shown in Table 4, students reported a broad range of parental education. The majority of students indicated both their fathers ($n = 223$, 74.1%), and mothers ($n = 190$, 63.1%) had a college degree (or more).

Table 4
Frequency Distribution of Parental Education

	Father		Mother	
Parental Education	*N*	Percentage	*N*	Percentage
Elementary	2	0.7	1	0.3
Junior High	7	2.3	5	1.7
High School	28	9.3	50	16.6
Some College	32	10.6	47	15.6
Bachelor's	120	39.9	126	41.9
Master's	69	22.9	47	15.6
Advanced Degree (such as M.D., J.D., Ph.D.)	34	11.3	17	5.6
Do Not Know	5	1.7	6	2.0

The most frequently cited primary school of study was Business/Accounting ($n = 111$, 36.9%), followed by Letters, Arts, & Sciences ($n = 85$, 28.2%) and Engineering ($n = 60$, 19.9%). The breakdown of school (i.e. college) of study of the sample is presented in Table 5 below. The

most common primary school of study for the entire undergraduate international student

population at the institution was Business/Accounting (39.3%), followed by Letters, Arts, &

Sciences (29.3%) and Engineering (15.4%).

Table 5
Frequency Distribution of Primary School of Study

	N	Percentage
Primary School of Study		
Letters, Arts, & Sciences	85	28.2
Business	81	26.9
Engineering	60	19.9
Accounting	30	10.0
Communication/Journalism	19	6.3
Architecture	7	2.3
Theatre	5	1.7
Public Policy	4	1.3
Cinematic Arts	3	1.0
Fine Arts	2	0.7
Music	2	0.7
Medicine	1	0.3
Other	2	0.7

Instruments

Prior to receiving the survey, all participants were provided with a consent form and were

notified that all responses would remain confidential (Appendix A). The survey was divided into

five sections: 1) demographic and background information (Appendix B), 2) Academic Advising

Inventory, including supplemental questions (Appendices C and D), 3) Stephenson Multigroup

Acculturation Scale (Appendix E), 4) Sense of Belonging to Campus (Appendix F), and 5) Intent

to Persist (Appendix G). Information on the specific instruments used for each of the sections is

described below.

Academic Advising Inventory. The Academic Advising Inventory (AAI) was designed

to measure three aspects of college student advising: 1) the advising relationship along the

developmental-prescriptive continuum, 2) the activities during an advising session and their

frequency, and 3) advising satisfaction. Aspects one and two were used to measure the

corresponding independent variables in the present study and aspect three, advising satisfaction,

was identified as a dependent variable in Research Questions 1 and 2 and an independent

variable in Research Questions 3 and 4. The AAI was developed by Winston and Sandor (1984)

(see Appendix C) and is provided to researchers by Student Development Associates, Inc.

through the National Academic Advising Association.

The 57-item inventory has four parts. Part one examines how students perceive their

advising relationship, which is represented by two behavioral styles and attitudes – prescriptive

and developmental. The second section explores the advisor-advisee activities. Part three seeks

to measure students' satisfaction with advising and the fourth part is a demographic

questionnaire. This study will use parts one and two as written. Part three will be used in its

entirety and will also include supplemental advising satisfaction questions. Several items from

part four, the demographic section, will be extracted and used at the beginning of the survey

along with additional demographic questions. Finally, supplemental questions will be added at

the end of the AAI and will be described below.

AAI part one: Advising relationship. Part one, which examines the nature of the

advising relationship, contains questions that are designed to assess the extent students report

receiving prescriptive or developmentally based advising in their current situations. The section

contains 14 items and within each item students are given a pair of advisor behaviors, one

prescriptive in nature and the other developmental. They are asked to choose which they prefer.

Each behavior is rated using a four-point Likert-type scale for a total of an eight-point scale for

each item. For example, "My advisor suggests what I should major in" has a response range of

A, B, C, and D with A representing "very true" and D representing "slightly true."   The

corresponding statement "My advisor suggests steps I can take to help me decide on a major" has

a response range of E, F, G, and H with E defined as "slightly true and H as "very true."

Students must choose one letter between A and H to indicate their preference and the strength of

that preference for one of the two statements.

Part one contains three subscales: Personalizing Education, Academic Decision Making,

and Selecting Courses. Personalizing Education (PE) contains eight items and addresses both

academic and personal interests and concerns of the student such as career planning,

extracurricular activities, goal setting, identification of campus resources, and personal interests.

The PE subscale scoring range is 8-64, where scores of 33-64 indicate "developmental advising"

and scores of 8-32 represent "prescriptive advising." The second subscale, Academic Decision-

Making (ADM), is made up of four items that address monitoring academic progress and

gathering information and assessing the student's abilities and interests related to academic

subjects. Scores ranging from 17-32 indicate "developmental advising" while scores from 4-16

represent "prescriptive advising." Selecting Courses (SC) is the third sub scale. There are two

questions. The first asks about specific course needs and the second addresses planning an

appropriate schedule. A high score (9-16) represents "developmental advising" and a low score

(2-8) is indicative of "prescriptive advising."

AAI part two: Advisor-advisee activities. Part two of the AAI addresses advising

activities over the past year. It contains 30 items that start with the sentence, "How frequently

have you and your advisor spent time…" Participants are asked to respond using a six-point

Likert-type scale where A=None, B=1 time, C=2 times, D=3 times, E=4 times, and F=5 or more

times. Section two contains five subscales: Personal Development and Interpersonal

Relationships (12 items), Exploring Institutional Policies (5 items), Registration and Class

Scheduling (4 items), Teaching Personal Skills (3 items), and Academic Majors and Courses (6

items).

AAI part three: Satisfaction with advising. The third part of the AAI assesses students'

satisfaction with advising. It consists of five questions with a four-point Likert-type scale rating.

Potential responses include Strongly Disagree (A), Disagree (B), Agree (C), and Strongly Agree

(D). For the present study, the scale will be changed from a four-point to a six-point rating scale

to match the format of questions 7-17 in the supplemental advising section described below.

AAI reliability and validity. Reliability and validity of the AAI have been examined.

Internal consistency for part one (i.e. developmental-prescriptive scale) was determined using

scores from 476 participants where the coefficient alpha was .78 (Winston & Sandor, 2002).

Subscale coefficients were .66 for Academic Decision-Making, and .81 for Personalizing

Education. The coefficient alpha for the Selecting Courses subscale was quite low, as the scale

only contained two items, so the subscale was not used in the present study. Part two was not

designed to have psychometrically unitary scales. In part three, the five satisfaction questions

were designed to measure different aspects of advising satisfaction. Their intercorrelations were

reported and ranged from .37-.67. Additionally, the more developmental the students perceived

the advising relationship to be, the higher the level of overall satisfaction (item 45) they reported.

In the current study, Cronbach alpha coefficients for the Academic Decision-Making and the

Personalizing Education subscales of Part one (i.e. advising relationship) were both .72. The

coefficient alpha was .91 for the advising satisfaction scale.

Validity support came from two sources. One was the comparison of responses of

students in a relatively intensive, developmentally based advising program to students who

received advising through the standard advising office. The study found statistically significant differences on the Developmental-Prescriptive Advising Scale and the Personalizing Education Scale but not on the other scales. The other validity source is an examination of the correlational relationships between the advising subscales and the activity scales. Except for the subscale dealing with selecting courses, the advising subscales correlated moderately (range .16 to .60, median .35) with the activity scales (Winston & Sandor, 2002). The AAI was chosen for this study because it was developed specifically for the undergraduate student population, is the most widely used advising inventory, and is theoretically-based. Additionally, the AAI received a positive review in the Mental Measurements Yearbook. The reviewer explains that the AAI provides a useful core for evaluating academic advising programs across institutions and the AAI authors "have made an excellent start" (Brown, 1989, p. 1).

AAI: Supplemental international student questions. The authors of the AAI mention an optional fifth part of the survey that allows researchers to develop their own questions related to academic advising to add at the end of the instrument (Winston & Sandor, 2002). A fifth section of the AAI was developed for the present study and included supplemental questions related to advisor-advisee activities and satisfaction with advising (Appendix D). Advisor-advisee activities items were developed to include questions written specifically for international students as well as questions developed to complement part two items and provide a more holistic overview of advising activities. Like most measurement tools related to academic advising, the AAI does not directly include questions about topics that have been suggested to be important for increasing *international* student advising satisfaction. This study included supplemental, advisor-advisee activity items assessing the following: whether or not the pair discussed the student's home country, family, cultural differences, and the advisor's advising

philosophy. More generally, students were asked about the type and frequency of contact they have with their advisors. Finally, students were asked supplemental advising satisfaction-related questions.

Stephenson Multigroup Acculturation Scale. The Stephenson Multigroup Acculturation Scale (SMAS) is a 32-item survey that measures behavioral and attitudinal aspects of acculturation/enculturation and can be applied across ethnic groups (Stephenson, 2000). Inherent in the SMAS is the belief that acculturation is a multidimensional process and results in one of four modes: assimilation, integration, separation, and marginalization. The measurement tool consists of two subscales, Dominant Society Identification (15 items) and Ethnic Society Identification (17 items) and both subscales address the topics of language, interaction, media, and food. Participants respond using a 4-point, Likert-type scale where 1=true, 2=partly true, 3=partly false, and 4=false.

Several studies were conducted to test the reliability and validity of the SMAS. Internal consistency was .86 for the entire scale (Stephenson, 2000). Coefficient aphas for the two subscales were .97 for Ethnic Society Identification (ESI) and .90 for Dominant Society Identification (DSI). In the current study, Cronbach alpha coefficient for the ESI subscale was .84 and it was .82 for the DSI subscale. The SMAS was validated on participants from the following groups: African Americans, African descendants, Asian Americans, European Americans, and Hispanic Americans. In terms of construct validity, the Dominant Society Identification tended to increase from first-generation to third-generation individuals while Ethnic Society Identification was found to decrease with each successive generation. Convergent-discriminant validity testing indicated high correlations with similar constructs (i.e. the Acculturation Rating Scale for Mexican Americans-II and the Bidimensional Acculturation

Scale for Hispanics) and little to no correlation with dissimilar constructs (i.e. when the ethnic

identification subscale on the SMAS was matched with the dominant identification scale on

another measurement tool and vice versa). Additionally, the SMAS incorporated questions

related to the top four content areas found in the broad acculturation measurement analysis

review conducted by Zane and Mak (2003), demonstrating peer consensus, which strengthens its

validity. The present study used the SMAS to evaluate the acculturation of international students

because of its multidimensional design, good psychometric properties, and versatility in

measuring across ethnic groups.

       Sense of Belonging to Campus. Sense of belonging is a psychological construct that

seeks to measure students' feelings of inclusion on campus (Hurtado & Carter, 1997). The

instrument was developed based on Bollen and Hoyle's (1990) dimension of "perceived

cohesion" as an alternative to Tinto's (1987) widely accepted concept of "integration." The

authors propose that sense of belonging to campus is a more acceptable construct to encourage

among college students than integration, especially for racially and ethnically underrepresented

populations. It originally contained three items that were measured using an 11-point, Likert-

type scale, where 0=strongly disagree and 10=strongly agree. The internal reliability was .94.

The instrument was later updated to include two more items, for a total of five, and was found to

have an alpha coefficient of .88 (Hurtado & Ponjuan, 2005). The scale was developed for use

with Latino college students but was later validated for use among diverse groups, where the

internal validity was reported as .90 (Johnson et al., 2007). In the current study, Cronbach's

alpha coefficient was .95. The Sense of Belonging scale was selected because of its promising

future as a more culturally sensitive tool that could be used instead of the "integration" construct.

Intent to Persist. Students' intent to persist and earn a degree from their current institution was measured using five questions (see Appendix G). After constructing causal models of persistence, researchers found that intent to persist among university students has the largest total effect on actual persistence in comparison with variables such as academic integration, social integration, grade point average, institutional commitment, and financial attitudes (Cabrera, Nora, & Castaneda, 1993). A six-point Likert-type scale was used where potential responses included Strongly Disagree, Disagree, Somewhat Disagree, Somewhat Agree, Agree, and Strongly Agree. The alpha coefficient for the present study was .73.

Procedure

All undergraduate international students at the institution were contacted via email by the principle investigator. A description of the survey, a link to the survey, and a notice on confidentiality were included in the email. All participants completed the survey online using Qualtrics, an internet survey platform. To maintain confidentiality of the participants, only the primary investigator for the study was granted access to the data. All identifying information from the survey was kept in a separate location from survey responses. On average, the survey took participants 20 minutes to complete. As an incentive for completing the questionnaire, students were given the opportunity to enter a drawing for one of three gift certificates to the school's bookstore or Amazon.com.

Data Analysis

For the data analysis, advising relationship, advisor-advisee activities, acculturation, country of citizenship, satisfaction with advising, and sense of belonging were used as independent variables. Satisfaction with advising and sense of belonging were also used as dependent variables, depending on the research question, along with intent to persist. Advising

relationship, advisor-advisee activities and advising satisfaction levels were measured using students' scores from the Academic Advising Inventory (AAI). Acculturation was measured using the Stephenson Multigroup Acculturation Scale (SMAS), sense of belonging was measured using the Sense of Belonging to Campus instrument, and intent to persist was measured using scores from a questionnaire developed for the present study. To examine the hypothesis for research question one, an independent-samples t-test was used. To examine the hypotheses in research questions two, three, and four, simultaneous multiple regression analyses were conducted.

CHAPTER IV: Results

The following chapter provides an overview of the results of the study, including preliminary analyses, analyses of the research questions, as well as post-hoc analyses. Prior to analysis, the independent and dependent variables were examined for accuracy of data entry, missing values, fit between their distributions, and the assumptions of multivariate analysis. Mean substitution was used if participants were missing one item on a scale. Their mean score for the other items was calculated and included. If participants were missing two or more responses on a scale, their scores were dropped on the relevant analysis. All variables had 3.3% or less missing data.

Results of the evaluation of assumptions led to transformation of several variables to reduce skewness, reduce the number of outliers, and improve the normality, linearity, and homoscedasticity of residuals. The advising relationship subscale of Academic Decision-Making, the acculturation subscales of Ethnic Society Identification and Dominant Society Identification, satisfaction with academic advising, and sense of belonging distributions differed moderately from normal and had negative skewness; therefore, the variables were reflected and then square root transformations were performed. The advisor-advisee activities distribution had positive skewness so square root transformation was performed. No transformation was necessary for the advising relationship subscale of Personalizing Education and the intent to persist distribution.

Preliminary Analyses

Correlations. Pearson product correlation analyses were conducted to examine the relationships between demographic variables (e.g. gender, age, student entry status: freshman or transfer, time living in the U.S. and time studying current degree program) along with advising relationship, advisor-advisee activities, satisfaction with academic advising, acculturation, sense

of belonging, and intent to persist. The means, standard deviations and correlation are

summarized in Table 6.

Age of the student was positively correlated with time living in the U.S. ($r = .27, p = .00$)

and time studying the current degree program ($r = .44, p = .00$). In addition to age, time living in

the U.S. was positively associated with time studying the current degree program ($r = .63, p$

$= .00$) and intent to persist to graduation ($r = .17, p = .00$). Time in the current degree program

was negatively correlated with a developmental advising relationship on the Personalizing

Education subscale ($r = -.13, p = .03$), and it was positively associated with sense of belonging (r

$= .13, p = .03$) and intent to persist ($r = .14, p = .02$). The students' parental income was

positively correlated with acculturation to U.S. society ($r = .20, p = .00$).

A stronger developmental advising relationship, as opposed to a prescriptive advising

relationship, on the Personalizing Education subscale was positively correlated with the

frequency of advisor-advisee activities ($r = .31, p = .00$), satisfaction with the academic advising

($r = .29, p = .00$), the Dominant Society Identification subscale of the acculturation inventory (r

$= .14, p = .02$), and sense of belonging ($r = .14, p = .02$). Moreover, a stronger developmental

advising relationship, as opposed to a prescriptive advising relationship, on the Academic

Decision-Making subscale was positively correlated with satisfaction with academic advising (r

$= .38, p = .00$), the Dominant Society Identification subscale of the acculturation inventory (r

$= .12, p = .03$), sense of belonging ($r = .22, p = .00$), and intent to persist ($r = .20, p = .00$).

The frequency of advisor-advisee activities was positively associated with satisfaction

with academic advising ($r = .16, p = .01$) and negatively associated with intent to persist ($r = -.21$,

$p = .00$). Satisfaction with academic advising was positively correlated with the Ethnic Society

Identification subscale ($r = .18, p = .00$) and the Dominant Society Identification subscale of the

Table 6

Means, Standard Deviations, and Pearson Product Correlations for Measured Variables

Variables	M	SD	2	3	4	5	6	7	8	9	10	11	12	13
1. Gender			.08	.13*	-.04	-.01	-.10	-.06	-.05	-.15*	-.11	.00	-.05	-.05
2. Age	20.51	2.13	--	.27**	.27**	.44**	-.04	-.09	.06	.06	.00	-.04	.08	.09
3. Entry				--	.20**	.30**	-.04	-.06	-.01	-.05	.03	-.10	.02	.00
4. Mo in US	29.35	25.55			--	.63**	-.05	-.02	-.11	.08	.10	.01	.08	.17**
5. Mo in DP	22.48	18.14				--	-.13*	.03	-.11	.05	.10	.02	.13*	.14*
AAI														
DPA														
6. PE	36.91	9.72					--	.06	.31**	.29**	.02	.14*	.14*	-.02
7. ADM	21.08	5.57						--	.10	.38**	.11	.12*	.22**	.20**
8. Activities	28.94	23.85							--	.16**	-.06	.11	.08	-.21**
9. Satisfact	22.60	4.88								--	.18**	.24**	.33**	.38**
SMAS														
10. ESI	53.95	8.23									--	-.03	.15**	.17**
11. DSI	44.26	7.50										--	.47**	.25**
12. Belonging	7.52	2.02											--	.50**
13. Persist	5.09	.86												--

Notes. 1. Gender (1=Female, 2=Male); 2. Age; 3. Entry=Started at current institution as freshman or transfer student (1=Freshman, 2=Transfer); 4. Mo in US=Months living in United States; 5. Mo in DP=Months studying current degree program; AAI (Academic Advising Inventory); DPA (Developmental-Prescriptive Advising); 6. PE=Personalizing Education; 7. ADM=Academic Decision-Making; 8. Activities =Advisor-Advisee Activities; 9. Satisfact=Satisfaction with Advising; SMAS (Stephenson Multigroup Acculturation Scale); 10. ESI=Ethnic Society Identification; 11. DSI=Dominant Society Identification; 12. Belonging=Sense of Belonging; 13. Persist=Intent to Persist
*p<0.05. **p<0.01.

acculturation inventory ($r = .24$, $p = .00$), sense of belonging ($r = .33$, $p = .00$), and intent to

persist ($r = .38$, $p = .00$). Furthermore, Ethic Society Identification and Dominant Society

Identification were both positively correlated with sense of belonging ($r = .15$, $p = .01$), ($r = .47$,

$p = .00$) and intent to persist ($r = .17$, $p = .00$), ($r = .25$, $p = .00$); however, there was no

relationship found between these two acculturation subscales. And finally, sense of belonging

was positively associated with intent to persist ($r = .50$, $p = .00$).

Analysis of Research Questions

Research Question 1: Are there ethnic group differences by countries of origin in advising

satisfaction among international college students?

Participants' countries of origin were extremely heterogeneous (see Table 2) and because

of this diversity the only group large enough for analysis was China. Therefore, an independent-

samples t-test was conducted to compare the advising satisfaction scores for Chinese students

and all other ethnic groups. There was no significant difference in scores for Chinese ($M = 22.47$,

$SD = 4.77$) and all other students ($M = 22.68$, $SD = 4.94$; $t(296) = -.35$, $p = .73$, two-tailed). The

magnitude of the differences in the means (mean difference = .21, 95% CI: -1.42 to .99) was

very small (eta squared = .0004).

Research Question 2: Do advising relationship, advisor-advisee activities, and acculturation

predict advising satisfaction among international college students?

To determine to what extent the independent variables of advising relationship, advisor-

advisee activities, and acculturation were predictors of advising satisfaction, simultaneous

multiple regression was performed using two relationship subscales of Personalizing Education

and Academic Decision-Making, as well as two acculturation subscales of Ethnic Society

Identification and Dominant Society Identification along with one scale score of advisor-advisee

activity frequency. The criterion variable used was satisfaction with academic advising.

Results revealed overall significance for the prediction model (F (5, 280) = 21.88, p

< .000) with 28% of the variance being explained. A summary of the regression model (see

Table 7) indicates that four of the five variables significantly contributed to the model. The

advising relationship subscale of Academic Decision-Making was the best predictor, followed by

the Personalizing Education subscale and then the acculturation subscales of Ethnic Society

Identification and Dominant Society Identification. Frequency of advisor-advisee activities was

found to be non-significant. The results suggest that students who report a more developmental

advising relationship, as opposed to a prescriptive advising relationship, also report higher levels

of advising satisfaction. Additionally, students who report higher scores on the Ethnic and/or

Dominant Society Identification subscales also report higher levels of advising satisfaction.

Table 7
Summary of Simultaneous Regression Analysis of Advising Relationship,
Advisor-Advisee Activities, and Acculturation on Satisfaction with Advising

Variables	R^2	F	B	SE	β	p
Advising Satisfaction	.281	21.875				.000
Advising Relationship						
Personalizing Education			.022	.005	.243	.000
Academic Decisions			.357	.055	.339	.000
Activities			.031	.022	.078	.154
Acculturation						
Ethnic Society			.110	.042	.133	.010
Dominant Society			.113	.047	.123	.017

Research Question 3: Do advising relationship, advisor-advisee activities, acculturation, and advising satisfaction predict sense of belonging among international college students?

To determine to what extent the independent variables of advising relationship, advisor-advisee activities, acculturation, and advising satisfaction were predictors of sense of belonging, simultaneous multiple regression was performed using two relationship subscales of Personalizing Education and Academic Decision-Making, as well as two acculturation subscales of Ethnic Society Identification and Dominant Society Identification along with one scale score of advisor-advisee activity frequency and another for advising satisfaction. The criterion variable used was sense of belonging.

Results revealed overall significance for the prediction model (F (6, 279) = 17.56, p < .000) with 27% of the variance being explained. A summary of the regression model (see Table 8) indicates that three of the six variables significantly contributed to the model. The acculturation subscale of Dominant Society Identification was found to be the most significant predictor of sense of belonging, followed by satisfaction with academic advising and then Ethnic Society Identification. No significant relationships were found for either of the advising relationship subscales or advisor-advisee activity frequency. Therefore, the type of advising relationship (i.e. developmental or prescriptive) and the frequency of contact between the advisor and the advisee do not contribute to students' sense of belonging; however, those who reported higher scores on Domestic Society Identification, Ethnic Society Identification, and satisfaction with their academic advising experience tended to report a higher sense of belonging to campus.

Table 8

*Summary of Simultaneous Regression Analysis of Advising Relationship, Advisor-
Advisee Activities, Acculturation, and Advising Satisfaction on Sense of Belonging*

Variables	R^2	F	B	SE	β	p
Sense of Belonging	.274	17.555				.000
Advising Relationship						
Personalizing Education			.002	.003	.045	.421
Academic Decisions			.047	.036	.074	.188
Activities			-.007	.013	-.028	.611
Acculturation						
Ethnic Society			.059	.026	.118	.024
Dominant Society			.230	.029	.418	.000
Advising Satisfaction			.094	.036	.156	.010

Research Question 4: Do advising relationship, advisor-advisee activities, acculturation,

advising satisfaction and sense of belonging predict intent to persist to graduation among

international college students?

    To determine to what extent the independent variables of advising relationship, advisor-

advisee activities, acculturation, advising satisfaction, and sense of belonging were predictors of

intent to persist to graduation, simultaneous multiple regression was performed using two

relationship subscales of Personalizing Education and Academic Decision-Making, as well as

two acculturation subscales of Ethnic Society Identification and Dominant Society Identification

along with one scale score of advisor-advisee activity frequency, one for advising satisfaction,

and one for sense of belonging. The criterion variable used was intent to persist.

    Results revealed overall significance for the prediction model (F (7, 278) = 25.42, p

< .000) with 39% of the variance being explained. A summary of the regression model (see

Table 9) indicates that three of the seven variables significantly contributed to the model. Sense

of belonging, advising satisfaction, and advisor-advisee activities were significant predictors of

intent to persist. These results suggested that international students who reported a sense of belonging to campus and satisfaction with their academic advising experiences tended to have a higher intent to persist to graduation; however, students who reported more frequent advisor-advisee activities tended to have a lower intent to persist. All advising relationship and acculturation subscales were found to be non-significant.

Table 9

Summary of Simultaneous Regression Analysis of Advising Relationship, Advisor-Advisee Activities, Acculturation, Advising Satisfaction, and Sense of Belonging on Intent to Persist

Variables	R^2	F	B	SE	β	p
Intent to Persist	.390	25.421				.000
Advising Relationship						
Personalizing Education			-.009	.005	-.098	.059
Academic Decisions			.030	.053	.029	.571
Activities			-.108	.020	-.275	.000
Acculturation						
Ethnic Society			.026	.039	.033	.497
Dominant Society			.012	.048	.014	.794
Advising Satisfaction			.300	.055	.307	.000
Sense of Belonging			.683	.089	.421	.000

Post-Hoc Analysis

Due to the richness of the data and the desire to empirically examine theoretical concepts presented in the academic advising literature, post-hoc analysis was also conducted to examine potential relationships between supplemental survey questions and students' satisfaction with advising.

Post-Hoc Question: Is there a relationship between the supplemental international-oriented advising questions and satisfaction with advising among international college students?

The authors of the Academic Advising Inventory (AAI) mentioned an optional fifth section of the survey allowing researchers to develop their own questions related to academic advising to add at the end of the instrument (Winston & Sandor, 2002). Furthermore, several scholars have pointed out the need for advisors to discuss additional, distinctive topics to better understand how to best assist international students. Like most measurement tools related to academic advising, the AAI does not directly include questions about topics that have been suggested to be important for increasing *international* student advising satisfaction. Therefore, new items were written for the present study (Appendix D); advisor-advisee activities items were developed to include questions written purposely for this unique population. Specifically for international students, theorists suggest advisors should facilitate activities that allow them to (1) advise the whole student, (2) understand the student's family background, (3) provide mentorship, (4) build trust to make personal meaning, (5) understand identity, (6) develop multicultural competencies, and (7) be in the student's world (Gordon, Habley, Grites & Associates, 2008). The present study included supplemental, advisor-advisee activity items that addressed topics such as: whether or not the pair discussed the student's home country, family, cultural differences, and the advisor's advising philosophy.

Pearson product correlation analyses were conducted to examine the relationships between the additional questions and students' satisfaction with advising. All items were significantly correlated with advising satisfaction. The strongest correlation was between advisor preparation and advising satisfaction ($r = .58$, $p = .00$); students who felt their advisors came prepared for their meetings tended to be more satisfied with the advising they received. Additionally, there was a positive association between advising satisfaction and students who indicated their advisors understood them when they talked ($r = .55$, $p = .00$). Furthermore,

students who indicated their advisors were familiar with their cultural background reported

higher levels of advising satisfaction than students who indicated a lower level of familiarity (r

$= .40$, $p = .00$). Supplemental international student advising questions and their associations with

advising satisfaction are displayed in Table 10.

Table 10
Pearson Product Correlations for Supplemental International Student Advising Questions and
Advising Satisfaction

	Advising Satisfaction
My academic advisor is familiar with my cultural background.	.40**
My academic advisor asks about my home country.	.27**
My academic advisor asks about my family.	.13*
My academic advisor understands me when we talk.	.55**
My academic advisor and I discuss cultural similarities and/or differences between the U.S. and my home culture.	.18**
My academic advisor shares his or her advising philosophy with me.	.17**
My academic advisor comes prepared for our meetings.	.58**
My academic advisor treats me unfavorably because of my international status.	-.27**

*Note: *p<0.05. **p<0.01.*

CHAPTER V: Discussion

The purpose of this study was to explore institutional and cultural factors that may predict satisfaction with academic advising among undergraduate international students in the United States. More specifically, a principal goal was to examine the association of the advising relationship, advisor-advisee activities, acculturation, and country of citizenship with advising satisfaction among international college students. Additionally, this study investigated an alternative to Tinto's integration model by examining the relationship between advising satisfaction, sense of belonging, and intent to persist in international college students. Finally, the study explored the relationship between the advising relationship, advisor-advisee activities, acculturation, advising satisfaction, and sense of belonging on intent to persist to graduate among undergraduate international students.

The results of this study suggest advising relationship and acculturation can be used as important variables to understand international students' satisfaction with academic advising. Acculturation and advising satisfaction can be used in an attempt to understand sense of belonging, and furthermore, advisor-advisee activities, advising satisfaction, and sense of belonging can be used as noteworthy variables in understanding students' intent to persist to graduation. The following chapter provides a summary and discussion of the findings, organized by independent variables, followed by limitations of the study. Directions for future research and implications for practice will also be discussed.

Summary and Discussion of Main Findings

Relationships between Advising Satisfaction, Sense of Belonging, and Intent to Persist. The present study explored whether advising satisfaction predicted sense of belonging and intent to persist among international undergraduate students. It was hypothesized that a

greater satisfaction with academic advising would predict a greater sense of belonging to campus

and a greater intent to persist to graduation. Both hypotheses were supported; those who

reported being more satisfied with academic advising reported a greater sense of belonging and a

greater intent to persist. These findings continue to validate research that suggests advisors may

be able to enhance students' sense of belonging by providing critical social support as they

transition and adjust to college life (Hoffman, Richmond, Morrow, & Salomone, 2002; Johnson

et al., 2007). Students receiving effective academic advising tend to feel positive not only about

the process but the institution as well (Crockett, 1978). Advisors are in a position to build

positive relationships with international students and increase their sense of belonging.

Additionally, the results of this study reiterate the importance of academic advising for

retention. Previous studies along with the present one have found that academic advising is a

promising field in which university leadership can invest to help improve student performance

and persistence (Beal & Noel, 1980; Braxton & McClendon, 2002; Habley & McClanahan,

2004; Hossler, 1990). Advising is the most frequently cited student service in terms of a positive

association with student persistence (Hossler, 1990). Students who are satisfied with advising

are more likely to be retained (Crockett, 1978). The present study aligned with previous work

that suggested academic advising is one of the most powerful institutional factors that reduce

college student departure and enhance students' acclimation to college (Braxton & Mundy,

2001). Similarly, Metzner (1989) revealed that high-quality advising, where quality is defined by

student perception (analogous with the present study), negatively influenced attrition. The

similarities between this study and previous research continue. Analysis put forth by Gordon et

al. (2008) of the NSSE (2005) data found that, "the quality of academic advising is the single

most powerful predictor of satisfaction with the campus environment for students at four-year

schools" (p. 73), Furthermore, academic advising was ranked as a leading factor promoting student persistence when student satisfaction and retention were studied across hundreds of higher education institutions (Beal & Noel, 1980; Habley & McClanahan, 2004). Academic advising promotes retention and advisors are in a position to help international students succeed. They serve as agents between the institution and international students, helping them adjust to academic demands and achieve academic success (Charles & Stewart, 1991).

In addition to satisfaction with advising, this study sought to examine whether sense of belonging predicted intent to persist among international college students. The hypothesis that a greater sense of belonging will predict a greater intent to persist was supported. These results continue to support the work of Hurtado and Carter (1997) and Johnson and her colleagues (2007). The present study examined their alternative to Tinto's integration theory. Integration theory stated that the more a student is academically and socially integrated into the corresponding systems of the school, the less likely they are to drop out (Tinto, 1987). Instead, Hurtado and Carter (1997) proposed that greater attention should be paid to students' subjective sense of integration (i.e. sense of belonging) as opposed to the primarily behavior-focused integration.

As suggested by Hurtado and Carter (1997) and later by Johnson et al. (2007), sense of belonging is a more culturally sensitive predictor of retention than integration, and the present study reiterates their findings that sense of belong predicts persistence. Additionally, results of this study support the work of Hausmann et al. (2007) who suggested students who feel a psychological connection to their institution are more likely to persist. By promoting sense of belonging, the expectation is that international students are able to feel part of the campus

community without feeling pressured to conform to or adopt the values of the majority (Bollen & Hoyle, 1990), and this will lead to greater persistence to graduation.

Relationship between Acculturation and the Dependent Variables. The present study sought to investigate whether acculturation predicted advising satisfaction, sense of belonging, and intent to persist. As little to no research has been conducted on the relationship between acculturation and these outcome variables, no hypotheses were developed and exploratory analyses were conducted. It was found that acculturation predicted advising satisfaction and sense of belonging but not intent to persist among international college students. More specifically, higher Ethnic Society Identification and Dominant Society Identification both contributed to greater satisfaction with academic advising. Dominant Society Identification, but not Ethnic Society Identification, was positively associated with sense of belonging. Berry (1992) defined four acculturation strategies in the orthogonal model: assimilation, integration, separation, and marginalization. Integration refers to those individuals who retain their cultural identity while at the same time join the larger societal framework, and assimilation involves abandoning one's home cultural identity and adopting the new culture. To describe the results of the present study using Berry's terminology, those students who were more integrated tended to report a greater satisfaction with advising. Furthermore, students who reported being more assimilated tended to experience a greater sense of belonging to campus. It is important for advisors to consider students' acculturation strategies. Advisors may need to play a stronger role in helping marginalized students as they navigate the demands of a new educational environment (Schlosser et al., 2011). The results of the present study reiterate the important role acculturation plays in international student adjustment.

Relationship between Advising Relationship and the Dependent Variables.

Additionally, this study sought to explore if advising relationship was a predictor of advising satisfaction, sense of belonging, and intent to persist among international college students. More specifically, it was hypothesized that a developmental advising relationship would predict higher levels of advising satisfaction, sense of belonging, and intent to persist. The results demonstrated higher developmental (versus prescriptive) advising relationship scores predicted higher advising satisfaction scores on both advising relationship subscales (i.e. Personalizing Education and Academic Decision-Making). However, a developmental advising relationship was not a statistically significant predictor of sense of belonging or intent to persist. These findings continue to validate research by Alexitch (1997; 2002) and Winston and Sandor (2002) who found that a developmental advising relationship positively correlated with advising satisfaction. Additionally, Coll (2008) found that developmental advising led to overall student satisfaction.

Although the present study examined students' recollection of *actual experiences* with their academic advisors, several previous studies reported on students' *preference* for developmental advising and how their preference related to advising satisfaction. Alexitch (1997) found that students reported preferring a more developmental advising style than they had received. Also supporting the present study, Cadieux and Wehrly (1986) found that international students in particular, reported appreciating developmental advising strategies.

It is important for students to feel valued and cared for by the university, and advisors following a developmental approach can achieve this objective (Drake, 2011; Heisserer & Parette, 2002). Scholars suggest that advising grounded in developmental theory is necessary

due to the increasing diversity in the student body. Developmental theory allows the flexibility

needed to work effectively with diverse students (Jeschke et al., 2001).

The results of this study did not support previous findings regarding advising relationship

and sense of belonging and retention. Drake (2011) discussed developmental advising leading to

a stronger connection to the institution among college students. The results of the present study

did not find a relationship between developmental advising and sense of belonging to campus.

Additionally, Coll (2008) found that developmental advising led to student retention but this

finding was not supported by the present study.

Relationship between Advisor-Advisee Activities and the Dependent Variables. In

addition to examining if acculturation and the advising relationship predicted the three outcome

variables, this study sought to examine if advisor-advisee activities predicted satisfaction with

advising, sense of belonging, and intent to persist among international college students. It was

hypothesized that a higher frequency of advisor-advisee activities would predict higher levels of

advising satisfaction, sense of belonging, and intent to persist. Advisor-advisee activities were

not related to advising satisfaction or sense of belonging. Additionally, advisor-advisee activities

and intent to persist were not positively correlated; however, surprisingly, a significant, negative

association was found. Students who reported more frequent advisor-advisee activities tended to

have a lower intent to persist. The results of this study were inconsistent with previous findings.

For example, Winston and Sandor (2002) found that frequency of activities positively correlated

with advising satisfaction. Moreover, another study that administered the AAI found that

advising satisfaction positively correlated with the frequency for all five activities subgroups

(Alexitch, 1997). Furthermore, the researcher asked students about their preferred frequencies

and found that students' preferred frequencies were significantly higher than the actual

frequencies of the advising activities. Additionally, Braxton and McClendon (2002) claimed that students who reflect upon faculty teaching practices, one specific advisor-advisee activity, prior to selecting courses were more likely to persist to graduation, whereas the present study did not find a connection between advising activities and retention.

Grouping all of the advising activities into one frequency count may have led to inconsistent findings. In the present study, students who reported unusually high frequencies tended to do so on items such as "discussing probation and dismissal policies" and "discussing financial aid." Therefore, the hypotheses may have been supported if only positive, proactive activity (e.g. career direction, discussing extracurricular possibilities, getting to know one another) items were taken into consideration. The students who reported an extremely high frequency of advisor-advisee activities may have interacted with their advisors because they were struggling, which likely made them less satisfied with their overall college experience, and therefore less likely to report satisfaction with advising, a sense of belonging to campus, and an intent to persist.

Limitations

Limitations of the present study must be taken into consideration and include matters of design, validity, and generalizability. To begin, this study sought to examine ethnic group differences by countries of origin in advising satisfaction among international college students. It was hypothesized that home country group differences would be found; however, participants' countries of origin were extremely heterogeneous and because of this diversity the only group large enough for analysis was China. The hypothesis was not supported, as there was no significant difference in scores for Chinese compared to all other students. Previous research has shown trends by country of citizenship in help-seeking behaviors, language difficulties,

interactions with authority figures, racial discrimination, development of new friendships, and homesickness (Dadfar & Friedlander, 1982; Oliver et al., 1999; Charles & Stewart, 1991; Chen, 1999; Fritz, Chin, & DeMarinis, 2008). Nevertheless, the relationship between country of origin and advising satisfaction had not previously been studied. Although no significant difference between country of origin and advising satisfaction was found in the present study, the results do not make a strong statement due to the disproportionate group sizes. Ideally, there would have been several groups of roughly equal size that could have been compared. The heterogeneity of the undergraduate international student population at the institution in the present study is evident, especially compared to the graduate student population at the same university. Combining all of the students into one group to compare with Chinese students was an imperfect method. Because of the extreme variation between countries of origin in the combined group, it is not surprising that the findings were insignificant.

A second limitation of the study is the use of self-reported data. The results of the survey relied upon participants' recollection of past experiences, where errors in recall are entirely possible. Additionally, self-reported data is a participant's perception of his/herself and experiences and may differ from reality. Self-reported data also brings with it the inherent risk of social desirability bias. Despite the assurance of confidentiality, participants may have felt uncomfortable providing honest responses to particular questions.

Third, there is a potential self-selection bias. Participants who completed the survey volunteered after receiving a request via email. Students who chose to participate may not have been a representative sample of the population. For example, international students' comfort level with the English language varies greatly. As the survey was in English, students who were

more confident in their English language abilities may have been more likely to complete the survey.

Finally, generalizing results of the present study should be approached with caution. Participants came from one private institution on the West Coast in a highly diverse urban context. It may not be appropriate to generalize results to institutions of a different size, geographic location, Carnegie Classification, or student characteristic distribution. Furthermore, although the range in participant country of origin was impressive, several of the countries were represented by as little as one student, thus, attempting to make generalized statements about populations from those particular countries would be inappropriate.

Directions for Future Research

The moderate amount of variance accounted for in the analyses suggests that additional factors may be influencing international college students' satisfaction with advising, sense of belonging, and intent to persist. Further research could bring more clarity to understanding international students' adjustment and persistence. The field could benefit from additional research that differs in methodology, design, and approach.

To begin, qualitative research could provide a depth that a quantitative methodology could not. Interviews and focus groups with international students would allow for a subset of students to provide more detail about their experiences. Furthermore, quantitative and/or qualitative analysis of the advisors' perceptions would enhance researchers' understanding of the U.S. international student population. Capturing the advisor perspective, alongside the student view, would lead to a richer understanding of the advising process for international students. Also, where possible, student record data (e.g. GPA, number of advising sessions) could be obtained so the reliance on self-reported information would be reduced.

While the present study provided a cross-sectional analysis, a longitudinal study could provide a deeper assessment of international student college experiences. Participants could be tracked across years, potential advisor changes, and observed until graduation. Where attrition occurred, follow up surveys could be conducted to better understand factors leading to departure.

As many of the suggestions for how to best assist international students are derived from theory, further research should be conducted to test their validity. As a starting point, the present study turned theoretical statements into survey questions that were all significantly correlated with advising satisfaction. This area of study is in its infancy and needs further empirical attention. Furthermore, additional variables should be examined (e.g. attitudes toward help-seeking behavior, self-efficacy) in relation to the variables in the present study in an attempt to lead to more definitive results. Finally, a broader range of participants should be included so greater confidence can be placed in the generalizability of the results.

Implications for Practice

The results of this study provide important implications for university administrators and researchers in their efforts to gain a better understanding of the U.S. undergraduate international student population. To begin, advising matters. Literature on student retention suggests that contact with a significant person within the school is a critical factor when a student is considering departure (Chickering & Gamson, 1987; Glennen, Farren, & Vowell, 1996). Students' perception of their relationship with an advisor is well documented as a factor in successful retention efforts (Coll, 2008), and the present study confirms these findings. According to Light (2001), "Good advising may be the single most underestimated characteristic of a successful college experience" (p. 81). Additionally, there is a connection between satisfaction with advising, sense of belonging, and retention. This was the first study to examine

the relationship between the three variables. Quality advising predicts a sense of belonging and sense of belonging predicts intent to persist to graduation.

Advisors serve as agents between the institution and international students, helping them adjust to academic demands and achieve academic success (Charles & Stewart, 1991). To help international students acclimate and learn the language of U.S. higher education, advisors can act as institutional agents, where they have the capacity and commitment to transfer directly or negotiate the transmission of institutional resources and opportunities (Stanton-Salazar, 1997). Institutional agents can operate through both developmental and prescriptive relationship behaviors to teach students how to build social capital and decode the system. Academic advisors must take time to build a network of relationships across their institution and understand resources available to students. Beyond interpersonal skill development, advisors who serve as institutional agents need a firm understanding of institutional policies. The more they understand about their institution's resources and procedures, the more they will be able to provide clear, succinct guidance to international students. Ultimately, university officials must determine the best use of their financial resources to increase international student success. The results of the present study, combined with previous research, suggest investment into academic advising resources would be a rewarding endeavor.

In addition to confirming the general importance of academic advising, the results of this study demonstrated, more specifically, that higher developmental advising relationship scores predicted higher advising satisfaction scores. Although these findings were consistent with many previous studies, it has become apparent that international students appreciate prescriptive advising interactions as well (Brown & Rivas, 1994; Heisserer & Parette, 2002; Smith & Allen, 2006). This may be especially true for international students because they tend to expect a more

formal relationship with their academic advisor. A completely developmental approach may

seem too relaxed and informal to them, as they may desire concrete answers and firm direction

(Charles & Stewart, 1991). They may seek hierarchical relationships in their new educational

system due to discomfort that arises with mutuality, and therefore a prescriptive approach, at

least in the beginning, may be well received (Goto, 1999). Although developmental advising

predicted satisfaction with advising, that does not necessarily mean prescriptive advising does

not also predict advising satisfaction. When prescriptive and developmental are presented on a

continuum, as seen in the present study and many others that came before it, developmental

advising is the better predictor of higher levels of advising satisfaction; however, research has

indicated this view is too simplistic to accurately represent important details that are

overshadowed by pinning the relationship styles against each other. College students, and

particularly international college students, have indicated a preference for both, and therefore, a

more nuanced approach should be developed to study advising relationships. Perhaps

developmental and prescriptive advising should not be situated together on the same continuum,

but instead, be measured independently of one another in attempt to understand situational and

individual characteristic differences when it comes to how each style relates to advising

satisfaction.

The results of the present study suggest another implication for academic advising

practice. In addition to rethinking the framework of an effective advising relationship, the data

suggests individual differences should be taken into account when determining what advisor-

advisee activities would be the most useful during an advising session (Smith & Allen, 2006).

Advisor-advisee activities that directly or indirectly address a student's acculturation are

important because acculturation is an essential variable to consider when addressing the unique

differences among international students. Acculturation is one of the most significant elements of adaptation for ethnic minorities in a given society (Zane & Mak, 2003), and the results of the present study continue to validate the importance of acculturation in understanding international student experiences. Advisors should be mindful of how international students identify with their home country and U.S. cultures. Generally speaking, students who identify strongly with both their home culture and the culture of their new environment experience the least amount of stress and adapt better than those who show low levels of identification with one our both cultures (Berry, 2005). Individuals taking a marginalization approach (i.e. low identification with both home country and U.S. cultures) have the hardest time adapting and may need additional support from their advisors. For example, they may need to see their advisors more frequently and may benefit from advisor referrals to campus resources for added support. Furthermore, researchers suggest helping professionals need to be especially aware of variables such as communication style (e.g. emphasis on verbal versus non-verbal cues), as it tends to change with acculturation. This change may affect important interpersonal processes between the advisor and the advisee (Zane & Mak, 2003).

Additionally, to increase advising satisfaction, the advisor must recognize the unique needs of each student. The results of the international student-specific supplemental question analyses further support the importance of engaging in activities that theorists hypothesized were beneficial for this population. All of the supplemental advising activities evaluated were positive correlated with advising satisfaction. As researchers have indicated and the results of the present study reiterate, learning about students' backgrounds position advisors to better assist students in adjusting to a new academic environment (Winston et al., 1984).

To illuminate the importance of these empirically-supported advising behaviors, institutions may wish to consider educating advisors on the theoretical concept of intercultural praxis, a subject recognized in the academic discipline of intercultural communication. Intercultural praxis is the process of critical, reflective thinking and acting that enables individuals to navigate the complex and challenging intercultural spaces inhabited interpersonally, communally, and globally (Sorrells, 2013). According to Sorrells (2013), "The purpose of engaging in intercultural praxis is to raise our awareness, increase our critical analysis, and develop our socially responsible action in regard to our intercultural interactions" (p. 16). By studying intercultural communication, advisors may develop a mindset that can be useful in the context of any advising relationship style and encourages the use of international student-specific advisor-advisee activities. Engaging in intercultural praxis may also assist advisors with keeping acculturation in the forefront of their minds while working with international students, and by doing so, may lead to greater satisfaction with advising among international students. Advisors may want to consider something as simple as hanging a world map in their offices and, as an icebreaker, asking new students to indicate where they consider home. This can be used as an opener to an early exchange between the pair, allowing the advisor to express an interest in the student's background. Additionally, with the changing demographic of both international and domestic students in the U.S., advisors must reflect upon how this transformation in the student body might affect their work. For example, an Asian American domestic student's identity development and adjustment concerns may be very different than an Asian international student's identity development trajectory and concerns. There will be considerable variance within each of theses groups as well. Training programs (e.g. new advisor orientation,

continuing professional development, advising-related master's degrees) should modify their curriculum to account for the changing demographics of advisees.

Taking the concept of intercultural praxis a step further, advisors could work to facilitate domestic-international student interaction, guided by intercultural praxis philosophy, to foster the growth of cross-cultural knowledge among both international and domestic students. For example, advisors could consider this objective while structuring new student orientation, group advising sessions and/or freshman seminar courses. Students should be encouraged to engage in dialogue and learn from one another, with the goal of expanding their cross-cultural competencies, and advisors are in a position to promote this process.

Conclusion

The purpose of this study was to explore institutional and cultural factors that may predict satisfaction with academic advising, sense of belonging to campus, and intent to persist to graduation among undergraduate international students. The results revealed the advising relationship and acculturation were significant predictors of international students' satisfaction with academic advising. In addition, acculturation and advising satisfaction were important influences on sense of belonging. Moreover, advisor-advisee activities, advising satisfaction, and sense of belonging can be used as important variables in predicting intent to persist to graduation. No significant differences were found between countries of origin and advising satisfaction. Results of exploratory analysis found that theoretically-based supplemental advising questions specifically tailored toward international student desires were positively correlated with advising satisfaction.

As indicated in the introduction, international students are a continuously expanding segment of diversity on university campuses and students who attend a school with a diverse

population are more likely to enhance their cultural sensitivity and build the skills necessary to work effectively with people from a variety of backgrounds (Zhao, Kuh, & Carini, 2005). Additionally, students educated in diverse institutions with opportunities to interact with diverse peers will be better equipped to participate in an increasingly heterogeneous and complex society (Gurin, Dey, Hurtado, & Gurin, 2002). Finding ways to help international students succeed will not only benefit the international student population, but has the potential of benefiting domestic students and U.S. society as a whole.

In conclusion, the advising relationship, advisor-advisee activities, and acculturation can have a significant positive impact on international college students' advising satisfaction, sense of belonging, and persistence. With this new knowledge, researchers can continue to investigate the nature of institutional and cultural variables to advance the understanding of factors that lead to U.S. undergraduate international student success.

References

Alexitch, L. R. (1997). Students' educational orientation and preferences for advising from

    university professors. *Journal of College Student Development*, *38*(4), 333–343.

Alexitch, L. R. (2002). The role of help-seeking attitudes and tendencies in students' preferences

    for academic advising. *Journal of College Student Development*, *43*(1), 5–19.

Appleby, D. (2001a). The teaching-advising connection: Part III. *The Mentor*, *3*(1). Retrieved

    from http://www.psu.edu/dus/mentor

Appleby, D. (2001b). The teaching-advising connection: Part IV. *The Mentor*, *3*(2). Retrieved

    from http://www.psu.edu/dus/mentor

Appleby, D. (2001c). The teaching-advising connection: Part V. *The Mentor*, *3*(2). Retrieved

    from http://www.psu.edu/dus/mentor

Association of American Colleges and Universities. (2006). *College learning for the new global

    century*. Washington, D.C.: Association of American Colleges and Universities.

Beal, P. E., & Noel, L. (1980). *What works in student retention*. Iowa City, IA: American

    College Testing Program.

Berry, J. W. (1992). Acculturation and adaptation in a new society. *International Migration*, *30*,

    69–85.

Berry, J. W. (1997). Immigration, acculturation, and adaptation. *Applied Psychology*, *46*(1), 5–34.

Berry, J. W. (2003). Conceptual approaches to acculturation. In K. M. Chun, P. B. Organista, &

    G. Marin (Eds.), *Acculturation: Advances in theory, measurement, and applied research*

    (pp. 17–37). Washington, D.C.: American Psychological Association.

Berry, J. W. (2005). Acculturation: Living successfully in two cultures. *International Journal of

    Intercultural Relations*, *29*(6), 697–712.

Berry, J. W. (2006). Acculturative stress. *Handbook of Multicultural Perspectives on Stress and Coping*, 287–298.

Berry, J. W., Phinney, J. S., Sam, D. L., & Vedder, P. (2006). Immigrant youth: Acculturation, identity, and adaptation. *Applied Psychology*, *55*(3), 303–332.

Bollen, K. A., & Hoyle, R. H. (1990). Perceived cohesion: A conceptual and empirical examination. *Social Forces*, *69*(2), 479–504. doi:10.1093/sf/69.2.479

Braxton, J. M., & McClendon, S. A. (2002). The fostering of social integration and retention through institutional practice. *Journal of College Student Retention: Research, Theory & Practice*, *3*(1), 57–71.

Braxton, J. M., & Mundy, M. E. (2001). Powerful institutional levers to reduce college student departure. *Journal of College Student Retention: Research, Theory and Practice*, *3*(1), 91–118. doi:10.2190/M127-V05B-5E5J-F9LQ

Brown, R. D. (1989). [Review of the test Academic Advising Inventory]. In *The tenth mental measurements yearbook*. Retrieved from http://buros.unl.edu/buros/

Brown, T., & Rivas, M. (1994). The prescriptive relationship in academic advising as an appropriate developmental intervention with multicultural populations. *NACADA Journal*, *14*(2), 108–111.

Burrell, L. F., & Trombley, T. B. (1983). Academic advising with minority students on predominantly white campuses. *Journal of College Student Personnel*, *24*(2), 121–126.

Cabrera, A. F., Nora, A., & Castaneda, M. B. (1993). College persistence: Structural equations modeling test of an integrated model of student retention. *The Journal of Higher Education*, *64*(2), 123–139. doi:10.2307/2960026

Cadieux, R. A. J., & Wehrly, B. (1986). Advising and counseling the international student. *New Directions for Student Services*, *36*(1), 51–63.

Campbell, S. M., & Nutt, C. L. (2008). Academic advising in the new global century: Supporting student engagement and learning outcomes achievement. *PEER Review, 10*(1), 4–7.

Charles, H., & Stewart, M. A. (1991). Academic advising of international students. *Journal of Multicultural Counseling and Development*, *19*(4), 173–181. doi:10.1002/j.2161-1912.1991.tb00554.x

Chen, C. P. (1999). Common stressors among international college students: Research and counseling implications. *Journal of College Counseling*, *2*(1), 49–65.

Cheng, D. (2004). Students' sense of campus community: What it means, and what to do about it. *Journal of Student Affairs Research and Practice*, *41*(2). doi:10.2202/1949-6605.1331

Chickering, A. W., & Gamson, Z. F. (1987). Seven principles for good practice in undergraduate education. *AAHE Bulletin*, *39*(7), 3–7.

Coll, J. E. (2008). A study of academic advising satisfaction and its relationship to student worldviews. *Journal of College Student Retention: Research, Theory and Practice*, *10*(3), 391–404. doi:10.2190/CS.10.3.g

Cornett-DeVito, M. M., & Reeves, K. J. (1999). Preparing students for success in a multicultural world: Faculty advisement in intercultural communication. *NACADA Journal*, *19*(1), 35–44.

Crockett, D. S. (1978). Academic advising: A cornerstone of student retention. In L. Noel (Ed.), *Reducing the Dropout Rate* (Vol. 3). San Francisco, CA: Jossey-Bass.

Crockett, J. B., & Crawford, R. L. (1989). The relationship between Myers-Briggs Type

Indicator (MBTI) Scale scores and advising style preferences of college freshmen.

Journal of College Student Development, *30*(2), 154–161.

Crookston, B. B. (1972). A developmental view of academic advising as teaching. *Journal of*

College Student Personnel, *13*, 12–17.

Dadfar, S., & Friedlander, M. L. (1982). Differential attitudes of international students toward

seeking professional psychological help. *Journal of Counseling Psychology*, *29*(3), 335–

338. doi:10.1037/0022-0167.29.3.335

Daller, M. L., Creamer, E. G., & Creamer, D. G. (1997). Advising styles observable in practice:

Counselor, scheduler, and teacher. *NACADA Journal*, *17*(2), 31–38.

Drake, J. K. (2011). The role of academic advising in student retention and persistence. *About*

Campus, *16*(3), 8–12. doi:10.1002/abc.20062

Durkheim, E. (1951). *Suicide: A study in sociology*. (J. A. Spaulding & G. Simpson, Trans.).

New York, NY: The Free Press.

Fielstein, L. L. (1994). Developmental versus prescriptive advising: Must it be one or the other?

NACADA Journal, *14*(2), 76–79.

Fielstein, L. L., Scoles, M. T., & Webb, K. J. (1992). Differences in traditional and

nontraditional students' preferences for advising services and perceptions of services

received. *NACADA Journal*, *12*(2), 5–12.

Fritz, M. V., Chin, D., & DeMarinis, V. (2008). Stressors, anxiety, acculturation and adjustment

among international and North American students. *International Journal of Intercultural*

Relations, *32*(3), 244–259. doi:10.1016/j.ijintrel.2008.01.001

Glennen, R. E., Farren, P. J., & Vowell, F. N. (1996). How advising and retention of students improves fiscal stability. *NACADA Journal*, *16*(1), 38–41.

Gordon, V. N., Habley, W. R., Grites, T. J., & Associates. (2008). *Academic advising: A comprehensive handbook*. San Francisco, CA: Jossey-Bass.

Goto, S. (1999). Asian Americans and developmental relationships. In A. J. Murrell, F. J. Crosby, & R. J. Ely (Eds.), *Mentoring dilemmas: Developmental relationships within multicultural organizations* (pp. 46–62). Mahway, NJ: Lawrence Erlbaum.

Grites, T., & Gordon, V. N. (2000). Developmental academic advising revisited. *NACADA Journal*, *20*(1), 12–15.

Guiffrida, D. A. (2006). Toward a cultural advancement of Tinto's theory. *Review of Higher Education: Journal of the Association for the Study of Higher Education*, *29*(4), 451–472.

Gurin, P., Dey, E. L., Hurtado, S., & Gurin, G. (2002). Diversity and higher education: Theory and impact on educational outcomes. *Harvard Educational Review*, *72*(3), 330–367.

Habley, W. R., & McClanahan, R. (2004). *What works in student retention*. Iowa City, IA: American College Testing Service.

Hausmann, L. R. M., Schofield, J. W., & Woods, R. L. (2007). Sense of belonging as a predictor of intentions to persist among african american and white first-year college students. *Research in Higher Education*, *48*(7), 803–839. doi:10.1007/s11162-007-9052-9

Heisserer, D. L., & Parette, P. (2002). Advising at-risk students in college and university settings. *College Student Journal*, *36*, 69–83.

Hemwall, M. K., & Trachte, K. C. (1999). Learning at the core: Toward a new understanding of academic advising. *NACADA Journal*, *19*(1), 5–11.

Hoffman, M., Richmond, J., Morrow, J., & Salomone, K. (2002). Investigating "sense of belonging" in first-year college students. *Journal of College Student Retention: Research, Theory & Practice*, *4*(3), 227–256.

Hood, M. A., & Schieffer, K. J. (Eds.). (1984). *Professional integration: A guide for students from the developing world*. Washington, D.C.: National Association for Foreign Student Affairs.

Hossler, D. (Ed.). (1990). *The strategic management of college enrollments*. San Francisco, CA: Jossey-Bass. Retrieved from http://www.eric.ed.gov/ERICWebPortal/detail?accno=ED326147

Hurtado, S., & Carter, D. E. (1997). Effects of college transition and perceptions of the campus racial climate on latino college students' sense of belonging. *Sociology of Education*, *70*(4), 324–345. doi:10.2307/2673270

Hurtado, S., & Ponjuan, L. (2005). Latino educational outcomes and the campus climate. *Journal of Hispanic Higher Education*, *4*(3), 235–251. doi:10.1177/1538192705276548

Institute of International Education. (2011). Open doors: Report on international educational exchange. Retrieved from http://www.iie.org/Research-and-Publications/Open-Doors/Data

Jeschke, M. P., Johnson, K. E., & Williams, J. R. (2001). A comparison of intrusive and prescriptive advising of psychology majors at an urban comprehensive university. *NACADA Journal*, *21*(1 & 2), 46–58.

Johnson, D. R., Soldner, M., Leonard, J. B., Alvarez, P., Inkelas, K. K., Rowan-Kenyon, H., & Longerbeam, S. (2007). Examining sense of belonging among first-year undergraduates

from different racial/ethnic groups. *Journal of College Student Development*, *48*(5), 525–542. doi:10.1353/csd.2007.0054

Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., & Hayek, J. C. (2006). *What matters to student success: A review of the literature*. Washington, D.C.: National Postsecondary Education Cooperative.

Light, R. J. (2001). *Making the most of college: Students speak their minds*. Cambridge, MA: Harvard University Press.

Lowenstein, M. (1999). An alternative to the developmental theory of advising. *The Mentor*, *1*(4). Retrieved from http://www.psu.edu/dus/mentor

Lowenstein, M. (2000). Academic advising and the "logic" of the curriculum. *The Mentor*, *2*(2). Retrieved from http://www.psu.edu/dus/mentor

Lowenstein, M. (2005). If advising is teaching, what do advisors teach? *NACADA Journal*, *25*(2), 65–73.

Metzner, B. S. (1989). Perceived quality of academic advising: The effect on freshman attrition. *American Educational Research Journal*, *26*(3), 422–442.

Mottarella, K. E., Fritzsche, B. A., & Cerabino, K. C. (2004). What do students want in advising? A policy capturing study. *NACADA Journal*, *24*(1), 48–61.

NAFSA Association of International Educators. (2010). The economic benefits of international education to the United States for the 2009-2010 academic year: A statistical analysis. Retrieved from http://www.nafsa.org/_/File/_/eis2010/usa.pdf

O'Banion, T. (1972). An academic advising model. *Junior College Journal*, *42*, 66–69.

O'Banion, T. (1994). Retrospect and prospect. *NACADA Journal*, *14*(2), 117–119.

Oetting, E. R., & Beauvais, F. (1991). Orthogonal cultural identification theory: The cultural

    identification of minority adolescents. *International Journal of the Addictions*, *25*, 655–

    685.

Oliver, J. M., Reed, C. K. S., Katz, B. M., & Haugh, J. A. (1999). Students' self-reports of help-

    seeking: the impact of psychological problems, stress, and demographic variables on

    utilization of formal and informal support. *Social Behavior and Personality: An

    International Journal*, *27*(2), 109–128. doi:10.2224/sbp.1999.27.2.109

Rendón, L. I., Jalomo, R. E., & Nora, A. (2000). Theoretical considerations in the study of

    minority student retention in higher education. In John M. Braxton (Ed.), *Reworking the

    student departure puzzle* (pp. 127–156). Nashville, TN: Vanderbilt University Press.

Rooney, M. (1994). Back to the future: Crookston and O'Banion revisited. *NACADA Journal*,

    14(2), 35–38.

Schlosser, L. Z., Talleyrand, R. M., Lyons, H. Z., Kim, B. S. K., & Johnson, W. B. (2011).

    Multicultural issues in graduate advising relationships. *Journal of Career Development*,

    38(1), 19–43. doi:10.1177/0894845309359285

Smith, C., & Allen, J. (2006). Essential functions of academic advising: What students want and

    get. *NACADA Journal*, *26*(1), 56–66.

Sorrells, K. (2013). *Intercultural communication: Globalization and social justice*. Thousand

    Oaks, CA: SAGE Publications.

Stanton-Salazar, R. D. (1997). A social capital framework for understanding the socialization of

    racial minority youth. *Harvard Educational Review*, *67*(1), 1–40.

Stephenson, M. (2000). Development and validation of the Stephenson Multigroup Acculturation

    Scale (SMAS). *Psychological Assessment*, *12*(1), 77.

Suárez-Orozco, M. (2007). *Learning in the global era: International perspectives on globalization and education*. Berkeley, CA: University of California Press.

Sue, D. W., Arredondo, P., & McDavis, R. J. (1992). Multicultural counseling competencies and standards: A call to the profession. *Journal of Counseling and Development*, *70*(4), 477–486.

Sue, D. W., & Sue, D. (1990). *Counseling the culturally different: Theory and practice* (2nd ed.). Oxford, England: John Wiley & Sons.

Tierney, W. (1992). An anthropological analysis of student participation in college. *Journal of Higher Education*, *63*(6), 603–18.

Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student attrition.* (1st ed.). Chicago, IL: University of Chicago Press.

U.S. Census Bureau. (2009). National population projections. Retrieved March 11, 2012, from http://www.census.gov/population/www/pop-profile/natproj.html

Van Gennep, A. (1960). *The rites of passage*. Chicago, IL: University of Chicago Press.

Winston, R. B. (1994). Developmental academic advising reconsidered: Chimera or unrealized potentiality. *NACADA Journal*, *14*(2), 112–116.

Winston, R. B., Miller, T. R., Erder, S. C., & Grites, T. G. (1984). *Developmental academic advising*. San Francisco, CA: Jossey-Bass.

Winston, R. B., & Sandor, J. A. (1984). Developmental academic advising: What do students want? *NACADA Journal*, *4*(1), 5–13.

Winston, R. B., & Sandor, J. A. (2002). *Evaluating academic advising: Manual for the Academic Advising Inventory.* Athens, GA: Student Development Associates, Inc.

Zane, N., & Mak, W. (2003). Major approaches to the measurement of acculturation among

ethnic minority populations: A content analysis and an alternative empirical strategy. In

K. M. Chun, P. B. Organista, & G. Marin (Eds.), *Acculturation: Advances in theory,*

measurement, and applied research (pp. 39–60). Washington, D.C.: American

Psychological Association.

Zhao, C. M., Kuh, G. D., & Carini, R. M. (2005). A comparison of international student and

American student engagement in effective educational practices. *Journal of Higher*

Education, 209–231.

Appendix A
Information Sheet for Non-Medical Research

You are asked to participate in a research study conducted by Lisa Mataczynski, M.A., and Ruth H. Chung, Ph.D., from the Rossier School of Education at the University of Southern California. The results will contribute to the completion of Lisa Mataczynski's doctoral dissertation. You were selected as a possible participant in this study because you are an international undergraduate student. Your participation is voluntary.

PURPOSE OF THE STUDY
The purpose of this study is to explore factors that predict satisfaction with academic advising and to examine the relationship between advising satisfaction, sense of belonging, and retention among international college students. More specifically, the purpose is to investigate if there is a relationship between the advising relationship, advisor-advisee activities, country of citizenship, and acculturation on advising satisfaction among international college students. Additionally, this study sought to explore the relationship between advising satisfaction and sense of belonging among international college students.

You should read the information below, and ask questions about anything you do not understand, before deciding whether or not to participate.

Completion of this questionnaire will constitute consent to participate in this research project.

PROCEDURES
You are asked to complete the following online questionnaire that will take about twenty minutes to complete. If you are unable to complete the questionnaire in one setting, you may save your progress and return to the website at a later time.

POTENTIAL RISKS AND DISCOMFORTS
There are minimal to no potential negative effects from participating in this study. However, you can choose not to answer specific questions or to end your participation without penalty.

POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY
Results of this study may assist in the expansion of knowledge regarding the relationship between the advising relationship, advisor-advisee activities, country of citizenship, and acculturation on advising satisfaction, as well as the relationship between advising satisfaction and sense of belonging among international college students.

PAYMENT/COMPENSATION FOR PARTICIPATION
By participating in this survey, you are eligible to enter a raffle to win a $50 Amazon.com gift certificate or one of two $25 university bookstore gift certificates. In order to participate in the raffle, you will need to provide your name and e-mail address at the end of the survey, which will be stored separately from your survey responses. You will be notified at the e-mail address you provide us, if you are chosen as a raffle winner.

CONFIDENTIALITY
Information obtained in the survey will only be reported in an aggregated form without any potentially identifiable descriptions connected to individuals. Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law.

When the results of the research are published or discussed in conferences, no information will be included that would reveal your identity. Your responses to the online survey will be downloaded directly by Lisa Mataczynski, M.A. Only members of the research team will have access to the data associated with this study. The data will be stored in the investigator's office in a locked file cabinet and password protected computer. The data will be stored for three years after the study has been completed and then destroyed.

PARTICIPATION AND WITHDRAWAL
This survey is completely voluntary, and you may choose to terminate this survey at any time. If you volunteer to participate in this study, you may withdraw at any time without consequence. You may also refuse to answer any questions that you do not want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

If you have any questions or concerns about the research, please feel free to contact Ruth Chung, Ph.D. at rchung@usc.edu, Lisa Mataczynski, M.A. at mataczyn@usc.edu, or call or visit (213) 740-9323, at the Rossier School of Education, USC, WPH 802, Los Angeles, CA 90089-4038.

RIGHTS OF RESEARCH PARTICIPANTS
You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have any questions about your rights as a study participant or you would like to speak with someone independent of the research team to obtain answers to questions about the research, or in the event the research staff can not be reached, please contact the University Park IRB, Office of the Vice Provost for Research Advancement, Stonier Hall, Room 224a, Los Angeles, CA 90089-1146, (213) 821-5272 or upirb@usc.edu.

Appendix B
Demographic Information

Please provide the following information:

1. Gender: ___Male ___Female

2. Age: ___

3. In what region is your home country located?
   ___Africa   ___Asia   ___Australia/Pacific Islands
   ___Caribbean   ___Central America   ___Europe
   ___North America   ___South America

4. Did you enter [university name] as a freshman or a transfer student?
   ___Freshman   ___Transfer

5. How many units (credits) have you completed at [university name]?
   ___0-16   ___17-32   ___33-48   ___49-64   ___65-80
   ___81-96   ___97-112   ___113-128   ___more than 128

6. Your year in school:
       (add the number of units you have completed at [school name] + any transfer/AP
       units appearing on your [school name] transcript)
   ___Freshman (0-32 units)   ___Sophomore (33-64 units)
   ___Junior (65-96 units)   ___Senior (97+ units)
   ___Other: _____

7. How long ago did you begin studying your current degree in the United States?
   ___Months

8. How long have you lived in the United States?
   ___Months

9. What college are you in?
   ___Letters, Arts, & Sciences   ___Accounting   ___Architecture
   ___Communication/Journalism   ___Business   ___Cinematic Arts
   ___Dentistry   ___Engineering   ___Fine Arts
   ___Occupational Therapy   ___Gerontology   ___Medicine
   ___Music   ___Public Policy   ___Theatre

10. What is your major of study? _____

11. What is your cumulative GPA at [university name]?
    ___Below 1.0   ___1.0 – 1.99   ___2.0 – 2.99
    ___3.0 – 3.5   ___3.51 – 4.0   ___Do not have one yet

12. What is the name of your country of citizenship? _____

13. How many years of education does your father have?
    Note: Please complete this information based on the person who was most involved in parenting you as a father whether it be your biological father, stepfather, grandfather, or some other significant father figure.
    ___Elementary   ___Bachelor's
    ___Jr high   ___Master's
    ___High school   ___Advanced degree (Such as M.D., J.D., Ph.D.)
    ___Some college   ___Do not know

14. How many years of education does your mother have?
    Note: Please complete this information based on the person who was most involved in parenting you as a mother whether it be your biological mother, stepmother, grandmother, or some other significant mother figure.
    ___Elementary   ___Bachelor's
    ___Jr high   ___Master's
    ___High school   ___Advanced degree (Such as M.D., J.D., Ph.D.)
    ___Some college   ___Do not know

15. How would you describe the socioeconomic class background of your family?
    ____Working class   ____Middle class   ____Upper middle class
    ____Lower middle class   ____Upper class

16. What is your best estimate of your parents' total income last year?
    ____less than $25,000
    ____$25,001-50,000
    ____$50,001-75,000
    ____$75,001-100,000
    ____$100,001-150,000
    ____Over $150,000

17. Please select your two strongest barriers to academic success:
    ___Work constraints   ___Culture shock   ___Family issues
    ___Language difficulties   ___Financial issues   ___Military
    ___Academic struggles   ___Lack of support network
    ___Racism/Discrimination   ___Other opportunities outside of school
    ___Physical health concerns ___Mental health concerns

Appendix C
Academic Advising Inventory
Winston and Sandor (1984)

PART I

       Part I of this Inventory concerns how you and your advisor approach academic advising. Even if you have had more than one advisor or have been in more than one type of advising situation this year, please respond to the statements in terms of your **current situation.**

       There are 14 pairs of statements in Part I. You must make two decisions about each pair in order to respond: (1) decide which one of the two statements most accurately describes the academic advising you received this year, and then (2) decide how accurate or true that statement is (from *very true* to *slightly true*).

       Mark your answers to all questions in the *Inventory* on the separate optical scan answer sheet provided. Use a number 2 pencil. If you need to change an answer, erase it completely and then mark the desired response.

EXAMPLE

80. My advisor plans my schedule.   **OR**   My advisor and I plan my schedule together.

A-------------B-------------C-------------D   E-------------F-------------G-------------H
very   slightly   slightly   very
true   true   true   true

RESPONSE ON ANSWER SHEET: **A B C D E F G H I J**
80 ⓪ ① ② ③ ④ ● ⑥ ⑦ ⑧ ⑨

EXPLANATION: *In this example, the student has chosen the statement on the right as more descriptive of his or her academic advising this year, and determined that the statement is toward the slightly true end (response F).*

----

1. My advisor is interested in helping me learn how to find out about courses and programs for myself.   **OR**   My advisor tells me what I need to know about academic courses and programs.

A-------------B-------------C-------------D   E-------------F-------------G-------------H
very   slightly   slightly   very
true   true   true   true

                           OR

2. My advisor tells me what would be the best schedule for me.   My advisor suggests important considerations in planning a schedule and then gives me responsibility for the final decision.

A-------------B-------------C-------------D   E-------------F-------------G-------------H
very   slightly   slightly   very
true   true   **OR**   true   true

3. My advisor and I talk about vocational opportunities in conjunction with advising.   My advisor and I do not talk about vocational opportunities in conjunction with advising.

A-------------B-------------C-------------D   E-------------F-------------G-------------H
very   slightly   slightly   very
true   true   true   true

4. My advisor shows an interest in my outside-of-class activities and sometimes suggests activities.

A-------------B-------------C-------------D
very   slightly
true   true

OR

My advisor does not know what I do outside of class.

E-------------F-------------G-------------H
slightly   very
true   true

5. My advisor assists me in identifying realistic academic goals based on what I know about myself, as well as about my test scores and grades.

A-------------B-------------C-------------D
very   slightly
true   true

OR

My advisor identifies realistic academic goals for me based on my test scores and grades.

E-------------F-------------G-------------H
slightly   very
true   true

6. My advisor registers me for my classes.

A-------------B-------------C-------------D
very   slightly
true   true

OR

My advisor teaches me how to register myself for classes.

E-------------F-------------G-------------H
slightly   very
true   true

7. When I'm faced with difficult decisions my advisor tells me my alternatives and which one is the best choice.

A-------------B-------------C-------------D
very   slightly
true   true

OR

When I'm faced with difficult decisions, my advisor assists me in identifying alternatives and in considering the consequences of choosing each alternative.

E-------------F-------------G-------------H
slightly   very
true   true

8. My advisor does not know who to contact about other-than-academic problems.

A-------------B-------------C-------------D
very   slightly
true   true

OR

My advisor knows who to contact about other-than-academic problems.

E-------------F-------------G-------------H
slightly   very
true   true

9. My advisor gives me tips on managing my time better or on studying more effectively when I seem to need them.

A-------------B-------------C-------------D
very   slightly
true   true

OR

My advisor does not spend time giving me tips on managing my time better or on studying more effectively.

E-------------F-------------G-------------H
slightly   very
true   true

10. My advisor tells me what I must do in order to be advised.

A-------------B-------------C-------------D
very   slightly
true   true

OR

My advisor and I discuss our expectations of advising and of each other.

E-------------F-------------G-------------H
slightly   very
true   true

11. My advisor suggests what I should major in.

A-------------B-------------C-------------D
very   slightly
true   true

OR

My advisor suggests steps I can take to help me decide on a major.

E-------------F-------------G-------------H
slightly   very
true   true

12. My advisor uses test scores and grades to let him or her know what courses are most appropriate for me to take.

A-------------B-------------C-------------D
very   slightly
true   true

OR

My advisor and I use information, such as test scores, grades, interests, and abilities, to determine what courses are most appropriate for me to take.

E-------------F-------------G-------------H
slightly   very
true   true

13. My advisor talks with me about my other-than-academic interests and plans.

OR

My advisor does not talk with me about interests and plans other than academic ones.

A-------------B-------------C-------------D
very   slightly
true   true

E-------------F-------------G-------------H
slightly   very
true   true

14. My advisor keeps me informed of my academic progress by examining my files and grades *only*.

OR

My advisor keeps informed of my academic progress by examining my files and grades and by talking to me about my classes.

A-------------B-------------C-------------D
very   slightly
true   true

E-------------F-------------G-------------H
slightly   very
true   true

PART II

Directions-Consider the following activities that often take place during academic advising. During **this academic year**, how many times have you been involved in each activity? Use the code below to respond to questions 15-44 on the separate answer sheet.

A=None (0 times)   C=2 times   E=4 times
B=1 time   D=3 times   F=5 or more times

How frequently have you and your advisor spent time…

15. Discussing college policies

16. Signing registration forms

17. Dropping and/or adding course(s)

18. Discussing personal values

19. Discussing possible majors/academic con-centrations

20. Discussing important social or political issues

21. Discussing content of courses

22. Selecting courses for the next term

23. Planning a class schedule for the next term

24. Discussing transfer credit and policies

25. Discussing advanced placement or exempting courses

26. Discussing career alternatives

27. Discussing probation and dismissal policies

28. Discussing financial aid

29. Identifying other campus offices that can provide assistance

30. Discussing study skills or study tips

31. Discussing degree or major/academic concentration requirements

32. Discussing personal concerns or problems

33. Discussing studies abroad or other special academic programs

34. Discussing internship or cooperative education opportunities

35. Talking about or setting personal goals

36. Evaluating academic progress

37. Getting to know each other

38. Discussing extracurricular activities

39. Discussing job placement opportunities

40. Discussing the purposes of a college education

41. Declaring or changing a major/academic concentration

42. Discussing time management

43. Talking about experiences in different classes

44. Talking about what you are doing besides taking classes

PART III

Considering the academic advising you have participated in at this college this year, respond to the following five statements using the code below.

1 = Strongly Disagree   **2 = Disagree**   **3 = Somewhat Disagree**
4 = Somewhat Agree   **5 = Agree**   **6 = Strongly Agree**

45. I am satisfied in general with the academic advising I have received.
46. I have received accurate information about courses, programs, and requirements through academic advising.
47. Sufficient prior notice has been provided about deadlines related to institutional polices and procedures.
48. Advising has been available when I needed it.
49. Sufficient time has been available during advising sessions.

Appendix D
Supplemental Advising Questions

1. Which of the following best describes the majority of the academic advising you have received over the past 12 months?
   Select only one.
   (a) Advised individually by assigned advisor
   (b) Advised individually by any available advisor
   (c) Advised individually by a faculty member
   (d) Advised with a group of students
   (e) Advised by a peer (student) advisor
   (f) Advised in conjunction with a course in which I was enrolled
   (g) Advised in a manner other than the alternatives described above Explain:
   (h) No advising received

2. I have had ___ one-on-one meetings (in person or video conference) with my advisor over the past 12 months.

3. Approximately how much time was generally spent in each advising session?
   (a) less than 15 minutes   (c) 31-45 minutes   (e) more than 1 hour
   (b) 15-30 minutes   (d) 46-60 minutes   (f) not applicable

4. I have had contact via phone or email with my advisor ___ times over the past 12 months.
   (*not including mass emails your advisor sends to all of his/her students*)

5. I have attended ____ group advising sessions over the past 12 months.

6. I would rate **my** overall effort as an **advisee** as (*select only one*):
   (a) Poor   (b) Acceptable   (c) Good   (d) Excellent

1 = Strongly Disagree   2 = Disagree   3 = Somewhat Disagree
4 = Somewhat Agree   5 = Agree   6 = Strongly Agree

7. My academic advisor is familiar with my cultural background.

8. My academic advisor asks about my home country.

9. My academic advisor asks about my family.

10. My academic advisor understands me when we talk.

11. My academic advisor and I discuss cultural similarities and/or differences between the U.S. and my home culture.

12. My academic advisor shares his or her advising philosophy with me.

13. My academic advisor comes prepared for our meeting(s).

14. I am comfortable sharing information about myself with my academic advisor.

15. My academic advisor treats me unfavorably because of my international status.

16. I would recommend my academic advisor to other students.

17. Academic advisors provide a useful service.

18. Please elaborate on any of your answers above and/or provide your overall impression of the academic advising you have received:

Appendix E
Stephenson Multigroup Acculturation Scale
Stephenson (2000)

Below are a number of statements that evaluate changes that occur when people interact with others of different cultures or ethnic groups. For questions that refer to "COUNTRY OF ORIGIN" or "NATIVE COUNTRY," please refer to the country from which your family originally came. For questions referring to "NATIVE LANGUAGE," please refer to the language spoken where your family originally came.

Write the answer that best matches your response to each statement
False   Partly false   Partly true   True

1. I understand English, but I'm not fluent in English.
2. I am informed about current affairs in the United States.
3. I speak my native language with my friends and acquaintances from my country of origin.
4. I have never learned to speak the language of my native country.
5. I feel totally comfortable with (Anglo) American people.
6. I eat traditional foods from my native culture.
7. I have many (Anglo) American acquaintances.
8. I feel comfortable speaking my native language.
9. I am informed about current affairs in my native country.
10. I know how to read and write in my native language.
11. I feel at home in the United States.
12. I attend social functions with people from my native country.
13. I feel accepted by (Anglo) Americans.
14. I speak my native language at home.
15. I regularly read magazines of my ethnic group.
16. I know how to speak my native language.
17. I know how to prepare (Anglo) American foods.
18. I am familiar with the history of my native country.
19. I regularly read an American newspaper.
20. I like to listen to music of my ethnic group.
21. I like to speak my native language.
22. I feel comfortable speaking English.
23. I speak English at home.
24. I speak my native language with my spouse or partner.
25. When I pray, I use my native language.
26. I attend social functions with (Anglo) American people.
27. I think in my native language.
28. I stay in close contact with family members and relatives in my native country.
29. I am familiar with important people in American history.
30. I think in English.
31. I speak English with my spouse or partner.
32. I like to eat American foods.

Appendix F
Sense of Belonging to Campus
Hurtado and Carter (1997) & Hurtado and Ponjuan (2005)

Instructions: Use the scale below to answer the following questions. Please indicate the number that best represents your view on each item.

Strongly disagree   **Strongly agree**
  0   **1**   **2**   **3**   **4**   **5**   **6**   **7**   **8**   **9**   **10**

1. I see myself as a part of the university community.
   0   1   2   3   4   5   6   7   8   9   10

2. I feel that I am a member of the university community.
   0   1   2   3   4   5   6   7   8   9   10

3. I feel a sense of belonging to the university community.
   0   1   2   3   4   5   6   7   8   9   10

4. I am enthusiastic about this university.
   0   1   2   3   4   5   6   7   8   9   10

5. If asked, I would recommend this university to others.
   0   1   2   3   4   5   6   7   8   9   10

Appendix G
Intent to Persist

1 = Strongly Disagree   2 = Disagree   3 = Somewhat Disagree
4 = Somewhat Agree   5 = Agree   6 = Strongly Agree

1. I will continue to take courses at [university name] until I earn a degree.

2. I have thoughts about leaving [university name] prior to earning my degree.

3. I intend to earn a degree from [university name].

4. Sometimes I think about dropping out.

5. It is likely that I will re-enroll at [university name] next semester. (If you are graduating after this semester, leave blank)