

Associations Between Expectancy Violations and International Students' Perceptions of  
Acculturation, Loneliness and Emotional Well-Being

by

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## ABSTRACT

When students move abroad, they imagine what their life abroad would be like. These expectations can differ from reality and could lead to positive or negative expectancy violations. Based on Burgoon's Expectancy Violation Theory, this research seeks to understand how expectancy violations regarding university support, inclusion with U.S. Americans, and friendships with international students are associated with acculturation, loneliness, and well-being. In addition, this study sought to understand how social capital is associated with acculturation, loneliness, and well-being. 136 international students from 25 different colleges and universities in the United States participated in the online survey. Multiple regressions were performed to understand the relationships between the expectancies and social capital as they relate to acculturation, loneliness, and well-being. Findings showed that when international students perceived that their expectations about university support were positively violated, they reported more acculturation, less loneliness, and more well-being. When they perceived that their expectations about inclusion with U.S. American students were positively violated, they reported more acculturation and well-being, and when they reported that their expectations about international students were positively violated, they reported less loneliness and more well-being. No significant relationships emerged between international students' social capital and acculturation, loneliness, or well-being, suggesting that the amount of social capital is not as important as the degree and valence of expectancy violations.

Considering the findings showed that the expectancy violations about university support were significantly related to the acculturation, loneliness, and well-being of

students, universities should not only set students expectations in line with reality, but also support students through their acculturation, loneliness, and well-being. Universities should provide support for students to establish a few meaningful relationships. This could be done through, for example, volunteering opportunities or small-scale events focused on building strong relationships.

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## CHAPTER 1

### INTRODUCTION AND LITERATURE REVIEW

Moving abroad is an incredibly stressful occurrence for anyone who has been through it (Burns, 1991). One popular way people move abroad is through pursuing higher education. Over 1 million international students were registered at colleges in the United States in the 2022/2023 school year (Institute of International Education, 2023c). These students typically leave their community behind to start a life abroad. The move requires them to get to know another culture, education system, and language, among other adjustments. People face many challenges when moving abroad. Indeed, many students have trouble with acculturation and loneliness, and these struggles can affect international students' well-being (e.g., Lysgaard, 1955; Maleku et al., 2022; McLachlan & Justice, 2009). Understanding what relates to these challenges might help in designing programs to reduce the negative impacts. Programs often set expectations about what a study abroad experience will be like. Students may also form expectations based on what they see on entertainment and social media.

It is common for people moving abroad to imagine what their lives and communities would be like living in another country (Song, 2012). The ideas we establish about foreign places were described by Said (1985) as 'imaginative geographies.' Said (1985) explains that based on experiences and portrayals of foreign places, we create an expectation of what the place is like. Imaginative geography is a subjective construct one creates about the world around them, in particular, the world one does not know. It describes the "perceived reality" that people hold of a place or space, which does not necessarily mean that the perception is right or wrong, but is an

expectation of reality for an individual (Said, 1985). These expectations can be established in various ways. For example, Schroeder et al. (2010) described how blogs and other social media resources are an easy way to gather information. Kölbel (2018) explained that all of this content influences and shapes impressions of other people's lives. Even people who have never been abroad created ideas and expectations about life in other countries, which nowadays are also influenced by the social media postings of friends and family (Kölbel, 2018). Kölbel (2018) conducted field research in Nepal where she interviewed 40 students about their upcoming study abroad. Kölbel described how interviewed students had perceptions about the wealth they would accumulate in foreign countries and how that would change their lives. The author explains that the perspectives described were often overly optimistic, as people with the desire to move abroad did not understand the full complexities of challenges they would likely face abroad. For example, one participant addressed how he will make significantly more money abroad, but he might not be entirely aware of how the cost of living in Australia is significantly higher, making financial survival abroad more difficult than expected.

This dissertation is based on the idea that the degree to which a student's study abroad experience violates their expectancies (either negatively or positively) is related to their levels of acculturation, loneliness, and well-being. The role of social capital is also examined to determine if both expectancy violations and the amount of social capital accumulated abroad are associated with these variables.

### **Expectancy Violation Theory**

Expectancy Violation Theory (EVT) describes what happens when people encounter behaviors that differ from their expectancies (Burgoon, 1978). As Burgoon

described, behavior sometimes confirms expectancies, but other times behavior violates expectancies in either positive or negative ways. EVT explains how and why people respond to expectancy violations in certain ways (Burgoon, 1978). While the theory initially focussed on proximity norms or the physical distance between people, it quickly extended to include other aspects of unexpected verbal and non-verbal communication (Burgoon & Hubbard, 2005). Burgoon and Walther (1990) explained that expectations were often perceived as “common sense” but in actuality are “socially normative patterns of behavior applicable to an entire speech community or subgroup [and] person-specific knowledge related to another’s typical communication pattern” (as quoted in Burgoon & Hubbard, 2005, p. 151).

Violations can be positive, negative, or neutral (Burgoon & Jones, 1976). When a positive violation occurs, something unexpected or out of the ordinary occurs, but what occurs is better than what was expected. For example, if you meet a friend for coffee and expect to have to pay for yourself, but then your friend pays for you, that would likely be a positive expectancy violation that would lead you to think about your friend favorably. A neutral violation happens when someone does something surprising, but the unexpected behavior is not better or worse than expected, just different. One example of this might be learning that a friend collected postcards growing up and although this information surprises you, it is not better or worse than any other hobbies you might imagine them having. A negative violation can happen when someone verbally or nonverbally does something worse than expected. Going back to the example of meeting a friend for coffee, imagine if your friend usually offers to pay for your coffee but this

time they don't. Or imagine that they ask you to pay for theirs. Given your past interactions with this friend, those behaviors would be negative expectancy violations.

An unfortunate consequence of holding many positive expectancies is that it allows for a great number of ways in which the expectation can be negatively violated. Park et al. (2021) showed that when people hold a company in high esteem and a negative expectancy violation occurs, the impact on the reputation of the company is much larger in comparison to a negative violation committed by a company that is already held in low esteem. In addition, a negative violation has a larger impact on satisfaction than a positive violation of a similar magnitude (Au & Tse, 2019). This is what Sohn and Lariscy (2015) referred to as the boomerang effect. This effect might in the same way impact the communicative expectancies we hold of people.

According to EVT, when people form expectancies, three key factors are at play, namely: “(a) characteristics of individual communicators, (b) characteristics of the communication between the sender and receiver, and (c) features of the communication context itself” (Burgoon & Hubbard, 2005, p. 151). What this means is that people have different expectancies based on those three factors. For example, you might expect your introverted friend to be shy and quiet at a party, and then be surprised when they start overtly flirting with people (individual characteristic). Your expectations will also be formed based on the relationship you have with someone. You might forgive a new friend for not remembering your birthday, but your life-long friend forgetting your birthday might be a serious negative expectancy violation (characteristics of the communication and relationship between two people). The last part of the expectancies is the context in which the interaction occurs. If your friend starts asking about your

relationship problems in front of your parents, you might feel more violated in comparison to them asking a similar question during a girls' night out. Culture is another aspect of context. So, if your friend comes from a culture where it is normal to not tip a waiter, you might be more accepting of them leaving a small tip in comparison to friends who grew up in a tipping culture.

Individual, relational, and contextual factors influence expectancies (Floyd et al., 2008). Expectancies have both predictive and prescriptive components to them. The predictive part of an expectation is based on what we think *will* happen based on our experiences with a particular person, situation, or culture. For example, you might predict that two of your friends will act very differently during an argument because you know one has a temper and the other is shy. The prescriptive part of expectancies is rooted in what we think *should* happen based on cultural and social norms of appropriateness. So, even though we expect two friends to act differently during an argument, prescriptive norms would dictate that they should not yell or throw things at each other. As we grow up we learn what socially acceptable behavior is (e.g. you look at a person when you are in conversation, you do not yell at your friends). We also learn norms for how we act with strangers versus friends, how to behave during a job interview or in a classroom, and so forth.

### **Culture and Expectation Violations**

Expectations of human behavior are strongly influenced by the culture we are familiar with and the range of customary and preferred behavior expected within that culture (Burgoon & Hubbard, 2005). For example, although it might be an expectation in Japan or Hong Kong to slurp when eating noodles, the same action might be a negative

violation of expectancies in many Western cultures (Youssef et al., 2017). Because we bring expectations based on our cultural norms into interactions with people from other cultures, expectancy violations are common in intercultural interactions (Burgoon & Hubbard, 2005). People also have expectations based on cultural stereotypes or what they observe either in person or on entertainment and social media about that culture. A study by Broome (1990), for example, showed that Greeks expect their interactions with other Greeks to be warmer and more cooperative during conflict compared to their interactions with people from other cultures. Given these expectations, behavior that is somewhat warm and cooperative might be seen as a negative expectancy violation by a Greek person if displayed during a conflict with a fellow Greek, but as a positive expectancy violation if displayed by someone from another culture, like the U.S. or China.

When people are mindful of cultural differences, they might have an awareness of the communication climate, establishing mindfulness that expectancy violations are likely to occur in the interaction (Katz et al., 2001). For example, when communicating with U.S. Americans, some foreigners might expect that the U.S. Americans will communicate with more excitement than is typically accepted by people from their country. Because of this, they may have a greater tolerance for behaviors that would be unacceptable in their own country but are the norm in the country they are visiting.

Although people might be aware that communicative differences occur in cross-cultural interactions, such awareness might not guarantee that people are always comfortable with them. For example, if you are from a culture where proximity norms dictate that the appropriate proximity for an interpersonal interaction is approximately 1 meter (3 feet) distance from each other and you are aware that it is typically 50

centimeters (1.5 feet) for someone from another country, you might be more accepting of the close proximity between you and someone else. Yet, the closeness can still feel uncomfortably close for your liking.

### **Sources of information for international students and stereotypes**

Establishing expectations within the context of intercultural communication is partially based on stereotypes (Hamilton et al., 1990). Unless actively challenged, these stereotypes are unlikely to change (Johnston & Macrae, 1994). Within the context of studying abroad, if students have not been exposed to first-hand experiences with different cultures (e.g. travel to different places, and interactions with foreign nationals), they have reported establishing expectations through the use of media, travel stories, and presentations at school (Pitts, 2009). International broadcasts likely contribute to stereotypical portrayals of people, leading to a generalized understanding of groups of people (e.g. Kidd, 2016; Ross, 2019). Stereotypes often form through media observation (Miller et al., 2018), and with limited or no direct exposure to other cultures, these stereotypes might not be challenged.

The selection and promotion of specific types of foreign media content over others by international broadcasters can contribute to a limited understanding of the culture. For example, Chinese students who did a study abroad in the United States noted that they relied heavily on American TV shows and their English classes to learn about U.S. culture and the way to use the English language (Deibert & Villeneuve, 2005; Rawlings & Sue, 2013). For example, the show “Friends” is so popular in China that they even established a “Friends-themed” cafe in which people can transport themselves to the set of the TV show (Feng, 2016). Students might expect that the show is a relatively

normal depiction of U.S. Americans and their friendships. Although the show might depict some aspects of U.S. culture, it does not accurately reflect the realities students face when they arrive in the United States.

The Chinese students realized that the communication norms they learned through media sources differed from those of the U.S. Americans they encountered and felt ill-prepared to understand the cultural differences (Rawlings & Sue, 2013). The stereotypes established with limited, incomplete, or sometimes false information can lead to wrong perceptions. Although previous examples highlight how content selection and the availability of content in the media markets of specific countries limits information, more passive strategies (e.g. what series do or do not make it to mainstream media in countries) also create specific expectations or stereotypes of a country.

Stereotypes can create seemingly positive or negative expectations. Although positive stereotypes sound beneficial for the people the stereotype pertains to, Czopp et al. (2015) explain, “[Positive stereotypes] are intended and/or perceived to be complementary in their depiction of members of a social group, yet nonetheless rely on a categorization process that inherently limits the ability to individualize the targets of the stereotype” (p. 451). Positive and negative stereotypes might yield different types of expectations that can then be violated either positively or negatively.

### **Positive Stereotypes and EVT**

Positive stereotypes are often encountered without anyone realizing that they are stereotypes. After all, most people are taught that stereotypes are bad to have. Stereotypes can, however, be disguised in what seems to be a compliment. Common positively framed stereotypes include: Asians are good at math and U.S. Americans are friendly.

Although they might sound like compliments, for recipients of the positive stereotypes there might be a negative impact on their self- and group evaluation (Czopp et al., 2015), especially if they do not believe they personally fit the stereotype or what to be judged for their unique characteristics.

The stereotypes we hold of others influence the way we interact with them. For example, Peterson et al. (2016) found that the prejudice of a teacher can impact students' reading and math scores where inaccurate teacher expectations lead to self-fulfilling prophecies. When we perceive people as more positive, we likely interact in ways that allow for positive stereotypes to come to light. This can then in turn become a self-fulfilling prophecy in which people react in ways that make the expectations we hold come true (Merton, 1948). This could merely be because of how we situate ourselves toward others.

International students might have academic, cultural, and career expectations before coming to the United States (Dorsett, 2017). For example, Tasci and Arslan (2019) describe how Mongolian students were excited about the educational resources, career development, and the perceived prestige they were about to receive when studying abroad, indicating that they might buy into the "American Dream" stereotype. For international students particularly, the positive expectations they associate with their upcoming study abroad can function as a mechanism to reduce the anxiety they might experience. Research has shown that managing anxiety can aid in people's cultural adjustment (Gudykunst, 1998). The move across borders can become less scary when the outcome of the move is expected to be positive. In addition, to make the move away from everything students know and trust, an inherent optimism for a better future is demanded.

Universities and colleges perpetuate these expectations of positive experiences by using marketing material that shows culturally diverse groups of people happily posing together, implying that students will establish friendship groups when studying abroad (Miller-Idriss et al., 2019). For example, Miller-Idriss et al. (2019) address that “students jumping, horizon-gazing, and standing with their arms wide open” creates a perception “where college is not only seen as a utilitarian or academic pursuit, but is also—or perhaps mostly—understood as a time of fun, maturation, personal discovery, and self-transformation” (p. 1091). It is challenging for students if these friendships and fun with host students are not established easily or naturally or if cultural ideas about the meaning of friendship differ from what students expect based on their cultural backgrounds (Gareis, 2000; McKenzie & Baldassar, 2017).

### **Negative Stereotypes and EVT**

Negative stereotypes refer to ideas we hold about a group of people that are negatively framed. When people hold negative stereotypes it likely contributes to establishing intergroup anxiety, which is “anxiety stemming from contact with outgroup members. Individuals often experience intergroup anxiety before interacting with people from a different culture” (Stephan & Stephan, 1985, p. 158). This intergroup anxiety likely creates a barrier between the individual who holds the negative stereotypes and the person or group stereotyped. Markus and Sentis (1982) explained that when people hold these negative expectations, they look for confirmation of these negative expectations to confirm their ideas. It is hard for people to change their negative preconceived notions about other individuals or groups. Stephan and Stephan (1985) however, explained that consistent, voluntary interactions might have the ability to reduce intergroup anxiety.

There are many ways through which people can establish these negative stereotypes about the United States, but one notable way through which students establish negative stereotypes is by consuming non-U.S. social media (Shi, 2021). Shi (2021) found that students who consumed more non-U.S. social media, such as Weibo, were more fearful of crime in the United States. This is likely due to the “mean world syndrome” where those who consume more media, in particular related to crime, overestimate how dangerous the world is (Gebner et al., 1980). Students might be more exposed to crime on these social media platforms due to crime and violence naturally receiving more media attention (Hamilton, 2000). The use of social media platforms made it easy to spread misinformation or contribute to establishing distorted ideas of reality about life in the United States (e.g. Feng et al., 2022; Ittefaq et al., 2021). Exposure to negative information about the United States can lead to a negative expectation of what students might encounter when studying abroad,

When international students hold negative expectations towards different aspects of their study abroad before moving to their host country, their expectations can be positively violated. This expectation formation might function as a “better safe than sorry” strategy where the believer takes this position to prepare for the worst with the potential to be positively surprised (Vroling & de Jong, 2010). When individuals have more negative expectations that are positively disconfirmed, it leads to an increase in positive regard in comparison to those who already had positive expectations that were more positively violated (Mitnick et al., 2022). In other words, when people expect the worst a positive, unexpected outcome leads to more satisfaction. For international students, this can mean that if they foster negative expectations about studying abroad

that do not happen, they might be more positive about their overall experience. Negative expectations might, however, not always be positively violated as people might have negative expectations, and find the reality to be much worse.

### **Significant Interactions for International Students**

International students coming to the U.S. have myriad expectations about what their study abroad experience will be like, as well as what the U.S. will be like in general. For this dissertation, the focus is on three categories of expectancy violations that are likely salient to international students due to the important role they play in the student's day-to-day functioning. These three expectations revolve around interactions with the university, host-country students, and other international students.

**University support expectations.** The first entity students interact with, which often starts before they depart from their home country, is the university. Universities go through extensive efforts to recruit international students, which is often a combination including sharing marketing material, using the alumni network, as well as in-person recruitment using university staff familiar with the cultural market (Onk & Joseph, 2017). Universities go through such efforts predominantly due to the financial benefit of having international students, considering the economic impact of international students in the United States was estimated to be \$45 billion in 2018 (Institute for International Education, 2023a). This economic incentive gives universities a reason to present the best possible image of their university to international students (Findlay et al., 2017). One recruitment strategy that Bamberger et al. (2020) uncovered was that Israeli universities recruit international students by creating content that establishes a personal connection with the university staff. Similarly, Bolat and O'Sullivan (2017) highlighted using

student-centered content in social media postings increases social media engagement but cautioned that using international students in social media postings can be seen as “an invasion of their privacy” (p. 759). Bamberger et al. (2020) suggested that this marketing material sets expectations for students moving abroad. Considering universities have an economic incentive to recruit students, a well-curated image of satisfied students is shown. This might set the expectations of students about the support from the university and the establishment of friendships high.

Students typically interact with different people to arrange practical matters related to the preparation for their study abroad. This includes but is not limited to submitting their applications, arranging their student visas, and enrolling in classes. The interactions they have with the international programs staff before leaving likely set the expectation of the interaction they have with the staff upon arrival at the university. Many universities offer a new student orientation program for international students, which generally focuses on culture, cultural interaction experiences, rest and exploration of the area, and roles and responsibilities of students and the international programs (Güvendir, 2018). Students are often motivated to engage in campus events as these events lead to a larger social network (Glass & Gesing, 2018). If students’ expectations about the university’s social support are negatively violated after they arrive, it likely has an impact on their day-to-day experiences.

**Host-country peer expectations.** The second significant group international students communicate with are host-country peers. A significant body of research has focused on understanding the relationship between host and international students to increase and improve the communication between the groups (e.g. Arkoudis et al., 2013;

Hendrickson et al., 2011; Jacobi, 2018; Jon, 2013). Jacobi (2021) examined the self-described benefits domestic students experienced from interacting with international students. Jacobi found that the conversations were thought-provoking, contributed to learning, increased an understanding of self, pleasure of engagement, and a connection with the international students. Although international students noted many of the same themes (e.g. thought-provoking and an opportunity to learn), many labeled the interactions as challenging (Jacobi, 2021). Another study showed that when international students have a host-country friend, they are less likely to be lonely and more likely to evaluate their experience studying abroad favorably (Gareis et al., 2019). Despite the benefits students reap from communicating with students from a different culture, research has shown that meaningful interactions between international students and host-country students are not common. In Gareis et al.'s (2019) study, about a third of international students reported having no friends from the U.S. This problem extends beyond international students studying at U.S. universities. Volet and Ang (1998) lamented that the lack of interaction between host and international students is “one of the most disturbing aspects of the internationalization of higher education in Australia” (p. 5).

Volet and Ang (1998) showed that students, international and host students alike, had stereotypes about each other that prevented some from creating meaningful relationships. It is unclear, however, whether these stereotypes were all created before or through initial interactions. For example, one Australian (host) participant in Volet and Ang's (1998) research expressed “I went to boarding school in Perth with a lot of international students and they all stuck together. They didn't really want to be with us so

we left them alone” (p. 14). These stereotypes might discourage students from making an active effort to attempt to bridge the interaction gap between international and host students. There are, however, other challenges that complicate the natural formation of relationships. For example, Volet and Ang (1998) note that different schedules make it more involving for international and host students to meet up as host students might have work or other social commitments. When the time is established to interact, however, students indicate that students’ ability to communicate in English or understand cultural references was the most challenging in establishing meaningful relationships (Jacobi, 2021). The challenging nature of the relationship between U.S. Americans and international students might explain why Trice (2004) found that international students were not concerned by the lack of interaction.

Nonetheless, international students tend to have expectations about the relationship between themselves and U.S. Americans (Hommadova & Mita, 2016). The Japanese students in Hommadova and Mita’s (2016) research indicated expecting U.S. American students to be friendly but felt the students in reality were distant. Similarly, participants in Pitts’ (2009) research desired and expected to build friendships with the host country natives and maintain those friendships after their study abroad ended. Gareis (2000) found a similar pattern among German students, who had to re-conceptualize their ideas of what friends are in a U.S. American context as friendships were performed differently in Germany. The expectations of what U.S. American friendships should look like as well as the expectations of what a friendship should look like from one’s own cultural perspective likely each influence the evaluation of satisfactory friendships.

**International student peer expectations.** The last group that international students frequently interact with is other international students. This group includes both students from the same country as well as students who are from countries different from the country of heritage but are not from the host country. This group of students in particular is important because international students often feel that they are better understood by each other and have less fear of being misunderstood in their communication (Robinson et al., 2019). This might contribute to international students developing more friendships with people from the same country as them as well as international students from other countries, compared to students from the host country (Hendrickson, 2018).

There are many reasons why international students might connect more easily with other international students. First, many international programs set up orientation programs for international students specifically. This is often done to support students in understanding culturally specific practices, such as starting a bank account or what doctor to see in case of illness. This necessitates international students spending a significant amount of time together. In addition, due to visa regulations, students are typically only allowed to work on-campus (with a few exceptions; USCIS, 2023). This means that students often work during university operating times and are likely to encounter other international students in these roles as well. Lastly, housing is typically difficult to navigate, which leads many international students to seek accommodations with other international students.

When moving abroad, people likely anticipate interactions with U.S. Americans, however, students might not be aware of how big a role international students will likely

play in their day-to-day lives. For example, if you were to move to China as a U.S. citizen, you might not expect to create close friendships with people from Colombia or Germany. It is therefore likely that, upon arrival, people are positively surprised by the international relationships they create. This positive expectancy violation might have a great impact on the overall experience of living abroad.

The extent to which international students' expectations about their communication with these three groups—university support, host country peers, and other international students—are confirmed or violated may influence how well international students adjust while studying abroad. This dissertation examines three facets related to that adjustment process: acculturation, loneliness, and (psychological) well-being as discussed next.

### **Acculturation**

When international students arrive in their host country, some degree of cultural exchange will take place. Students will need to get used to and learn how to function within the new country. Acculturation is a process in which a person adjusts their culture to the culture of a dominant group (Portes et al., 2007). This process of acculturation for international students encompasses learning about the U.S. classroom expectations, understanding simple day-to-day interactions, and adjusting eating habits to conform to the availability of ingredients in the country. One model frequently used to explain this adjustment process is the U-curve cultural adjustment model, which explains that students moving abroad typically first experience an introductory or honeymoon period (Lysgaard, 1955). In this stage, Lysgaard (1955) describes the newness of the country and meeting other people as exciting, but people are not yet establishing interpersonal

relationships. The initial excitement typically does not last, and Lysgaard (1955) explains that the lack of personable relationships leaves people feeling lonely and unhappy. In particular, Lysgaard (1955) stressed that a lack of relationship with U.S. Americans contributed to this experience. As time goes on, people start establishing more meaningful relationships and adjustment starts taking place, making them feel more comfortable and satisfied in the new country and become more integrated into the host country (Lysgaard, 1955).

This process of acculturation differs from one person to the next. Prior research attempted to understand what factors could influence the stressors experienced in the process of acculturation. One key component that impacts the acculturation process is social contact (Ward & Szabó, 2019). There are a multitude of ways in which this social interaction impacts acculturation. For example, Szabó et al. (2020) found that frequent contact with people from their home country and locals was related to more psychological well-being whereas isolation led to poor psychological outcomes as they reported greater frequency of feeling sadness. For some students, it might be easier to engage in positive interactions with those within the host country. For example, students from Northern and Central Europe reported having more positive experiences in the establishment of international friendships than students from East Asia when in the United States (Gareis, 2012). This might, as Gareis (2012) explains, be in part due to English comprehension, but there might also be other factors at play such as the interactions with the host country such as a perceived shared culture.

Research has not yet attempted to understand how expectancy violations regarding support from the university, friendships with peers from the host country, and

friendships with international students are associated with acculturation. This might be particularly important to understand because, as previously discussed, universities and colleges typically make a conscious effort to depict diverse groups of happy students at a university campus. These images can imply to international students that they will find their place at the university and will become part of an integrated friend group that consists of local U.S. American friends, or at least a friend group not consisting of people who are all from the same culture. This leads to the following hypothesis:

H1: The extent to which international students' expectations about (a) university support, (b) U.S. American friendships, and (c) international friendships are positively rather than negatively violated are associated with the degree to which they report experiencing acculturation

## **Loneliness**

When moving abroad, students typically need to start from the ground up by building a new social network as they leave their family and friends behind (Sawir et al., 2008). To aid in the establishment of new relationships, many international programs organize orientation programs and on-campus activities in which international students receive training on culture, cultural interactions, and practical issues regarding the integration process (Güvendir, 2018; Wawera & McCamley, 2019). Because this orientation is typically performed with other students, it also allows students an opportunity to connect to fellow students, typically other internationals. Although students have an opportunity to connect with other students who also left their home country, it typically takes time and investment for relationships to grow close (Hays, 1984). In addition, students sometimes indicate that attending social events can feel

overwhelming or challenging when going alone (Wawera & McCamley, 2019). This likely contributes to international students experiencing a sense of loneliness until their new relationships have developed.

Loneliness among college students is not uncommon, regardless of whether they are studying abroad or not. Research throughout the years shows an increase over time since the 1970s (Buecker et al., 2021). Notably, during the midst of the COVID-19 pandemic when many people were more isolated, loneliness rates among college students increased, leading to only slightly over 10% of college students reporting not feeling lonely (Labrague et al., 2021), and nearly 32% of international students dealt with severe loneliness amid the COVID-19 pandemic (Maleku et al., 2022). Research also indicates that international students might experience more loneliness in college as compared to domestic students (Bilecen et al., 2023). Some students, however, are better equipped to prevent loneliness. Research by Labrague et al. (2021) showed that when students are more resilient, have stronger coping behaviors, and feel stronger social support, they are less likely to report feeling lonely.

The impact of loneliness should not be underestimated. When students report feeling lonely, they also report experiencing more anxiety and depressive symptoms (Maleku et al., 2022; Richardson et al., 2017). Students who feel increased loneliness also face challenges in academic persistence and the desire to remain in college, even though there is no relationship between loneliness and students' GPA (Nicpon et al., 2006). This means that students who are performing well in college but feel lonely consider dropping out of their university, likely leading to the university losing well-performing students. In addition to academic challenges, loneliness has been found to have detrimental health

consequences. A meta-analysis highlighted that research consistently shows that mortality rates are higher for lonely people and lonely people struggle with more health concerns (Holt-Lunstad et al., 2015).

There is a significant body of research on international students' experiences with loneliness, showing relatively consistently that most international students struggle with loneliness (e.g. Girmay & Singh, 2019; Sawir et al., 2008; Wawera & McCamly, 2019). Despite the data showing the challenges of loneliness for international students, it is unlikely that students understand the full extent to which loneliness will pose a challenge in their day-to-day lives before they depart from their home country. If international students expect to receive great support through their university, U.S. American friendships, or friendships with other international students, it is likely that the realities disappoint them. This research therefore seeks to test the prediction that:

H2: The extent to which international students' expectations about (a) university support, (b) U.S. American friendships, and (c) international friendships are positively rather than negatively violated are inversely associated with loneliness.

### **Psychological well-being**

International students move abroad for many reasons. Although students at various educational levels likely have different motivations to move abroad, Chien (2015) found that for post-graduate students "value of overseas study, personal or family related factors, lack of opportunities at home, and financial or promotional reasons were main motivators for study abroad" (p. 724). When motivated by opportunity, students might overlook some of the challenges they are likely to face that could impact their well-being. Previous research on expectations and well-being shows that when people were unable to

reach the life goals they expected to reach, their well-being tended to suffer (Kristoffersen, 2009). Research by McLachlan and Justice (2009) shows that international graduate students face several challenges, some physiological changes such as weather or food, whereas others are more interpersonal, such as loneliness, performance pressure, establishing friends, or challenges that prevent them from seeking help in times of need. These challenges can lead to great distress among students. If students do not expect these challenges and therefore are faced with a more negative violation of their expectations, they likely face similar negative well-being outcomes as outlined in Kristoffersen's (2018) research.

Well-being refers to "the combination of feeling good and functioning effectively" (Huppert, 2009, p. 137). For example, some work on well-being has focused on positive emotional states (Staehr, 1998) whereas other work, including research on flourishing (Diener et al., 2010) has focused on having a positive outlook on life. Both conceptualizations of well-being are related to the overarching construct of psychological well-being. Topp et al. (2015) explain that the WHO-5 Well-Being Index (WHO-5) specifically serves as a standardized measure of mental health by the World Health Organization. Diener et al. (2010) designed the flourishing scale to reflect "having supportive and rewarding relationships, contributing to the happiness of others, and being respected by others" (p. 144). Although motivations for studying abroad can vary based on individual desires and regional differences, students seek international education for career advancement, prestige, transformative experiences, and travel aspirations (King & Sondhi, 2017). This indicates that students are likely to seek well-being and the ability to flourish through studying abroad.

A review of literature on studies examining the relationship between East Asian international students and well-being found that variables such as “length of stay in the host country, English proficiency, attitudes toward seeking help, depression, and acculturation” (Li et al., 2019, p. 309) were most frequently associated with well-being. In addition, students who had higher self-determined motivation reported higher levels of well-being as compared to students who experienced a stronger external push to move abroad (Yang et al., 2018). This might be, as Yang et al. (2018) described because students who experience a strong self-determined motivation tend to conduct more thorough research about their study abroad compared to students who experience a stronger external push. For the former group of students, the expectations they had about what they would face while studying abroad might align more closely with the realities they experienced.

International students have reported the social connections they make to be a critical step in having stability abroad. McLachlan and Justice (2009) noted that creating a surrogate family helped, however, they also noted that a large majority of students found establishing friendships with U.S. Americans to be slow and frustrating, and most resorted to creating international friendships. If someone moves to the United States and expects these relationships will form easily, they likely will be frustrated when they do not.

One way to enhance well-being is through university support. Cho and Yu (2014) found that the support students receive through the university leads to a decrease in their psychological stress. To remain competitive in the international student recruitment market, universities need to persuade prospective students that their university will

provide a satisfying experience (Russell, 2005). The need to remain competitive in international student recruitment might create a mismatch between what universities advertise as support and what students actually experience. If the high expectations universities create during student recruitment are not fulfilled, a negative expectancy violation will occur, leading to disappointment and possibly the type of psychological stress described by Cho and Yu (2014).

Given the research showing the importance of university support and friendship formation for the psychological well-being of international students, combined with expectancy violation theory ideas about the effects expectancy violations, the following hypothesis is advanced::

H3: The extent to which international students' expectations about (a) university support, (b) U.S. American friendships, and (c) international friendships are positively rather than negatively violated are associated with greater perceptions of psychological well-being.

### **Social Capital**

Thus far, this dissertation has centered on the role that expectancy violations are likely to play in relation to acculturation, loneliness, and well-being for international students studying abroad. The key idea here is that it is not necessarily the amount of university support or the quality or quantity of friendships one makes that matters, but rather the extent to which experiences meet or exceed (or fail to meet) a student's expectations about those aspects of their study abroad experience. Aside from expectancy violations, however, the sheer amount of social capital students develop could also be associated with these variables.

Social capital has many definitions, as highlighted by Portela et al (2013), ranging from the “backing of collectively-owned capital” (Bourdieu, 1986, p. 21) to “connections among individuals – social networks and the norms of reciprocity and trustworthiness that arise from them” (Putnam, 2000, p. 19). This dissertation adopts Glass and Gessing's (2018) definition of social capital as “practical and socioemotional resources embedded in social networks” (p. 1275). What this means is that with the establishment of close connections, people experience several benefits. The interpersonal connections that international students have can help them get access to tangible (e.g. food or housing) and intangible resources (e.g. emotional support) (Glass & Gessing, 2018). For example, you might have a friend who helps you get a job, a friend who is available to grab dinner and unwind after a long day, or a friend who can lend a hand when you need to move.

When we consider acculturation into a country, social capital can play a great role in access to cultural information. For example, a friend can help you understand what common foods are (e.g. understanding the cultural significance of Lunchables or bagel bites) or help in understanding culturally rooted verbiage and how to respond when hearing them (e.g. “What’s up?” should not prompt the answer “the sky” but is a greeting that typically is answered by “nothing much”). When international students have host-country friends to go to places together or share a meal with, exposure to the culture at a deeper level could create greater understanding.

Empirical research also hints at the possible use of social capital in the integration process of immigrants, as Liang (1994), for example, showed that the social contact and capital immigrants had access to supported their assimilation. However, it has to be noted that Liang’s (1994) research used neutralization, which they operationalized as the ratio

of culturally similar immigrants in participants' neighborhoods and the proportion of culturally dissimilar people in the workplace. Recent work on immigration has shifted from this "melting pot" metaphor towards a more culturally sensitive approach, recognizing the need to not deny one's culture, but learn how to function in another (e.g. Berray, 2019). Importantly, a study by Guo et al. (2014) showed that Chinese international students studying in Japan experienced less acculturative stress if they perceived themselves as having social capital. The use of social networking sites, in contrast, did impact acculturative stress.

Research has connected having social capital to acculturation and psychological well-being in contexts outside of study-abroad situations as well. For example, research by Hung et al. (2013) shows that Chinese immigrants in Hong Kong experienced a lack of social capital, which results in the experience of psychological discomfort. However, as participants' social capital grew, they felt more acculturated and less psychologically distressed. Similarly, Tutu and Busingye (2020) showed that social capital enabled immigrants to acculturate by helping them learn the language and get accustomed to local clothing styles and food. When migrants are unable to establish social capital, they tend to experience more acculturation stress (Archuleta & Teasley, 2013).

Intervention research focused on the elderly population in Spain shows that interventions targeting an expansion in people's social capital led to participants reporting lower levels of loneliness (Coll-Planas et al., 2017). Although social capital and loneliness research has not been applied in the international student context yet, it is reasonable to expect that when students do not have a wealth of social capital, they might experience greater loneliness. Glass and Gessing (2018) measure social capital using

specific common activities and situations one might want to undertake with others or find support in times of need. For example, “Go to places together.” “Ask for help when I am sick,” or “Celebrate special occasions” (p. 1281-1282) are common experiences. Not having someone to celebrate or get support from is likely associated with loneliness. Indeed, there is considerable literature showing that social capital and loneliness are inversely related across different age groups and various countries (e.g., Bai et al., 2021; Bian & Leung, 2015; Nyqvist et al., 2016).

It is well-documented that people need to connect with other people. A study conducted in China suggests that the social capital people have, as measured by membership in organizations, impacts participants’ well-being, even when controlled for overall health (Yip et al., 2007). When one is a member of an organization, they are likely to develop close connections through association with whom they undertake activities. Further research shows that people engaged in active pursuits and social activities were happier than those participants who did not have more social activities (Rohrer et al., 2018). Mental health interventions for international students aimed at improving students’ social capital were shown to have a positive impact on students’ mental health outcomes (Khosravi et al., 2019).

The three components of acculturation, loneliness, and psychological well-being are likely related to the experiences people have with others and the social capital they develop through those interactions. This leads to a final hypothesis:

H4: The extent to which international students report having social capital is (a) positively related to acculturation, (b) negatively related to loneliness, and (c) positively related to psychological well-being.

## CHAPTER 2

### METHODS

#### **Recruitment**

Prior to recruitment, a target goal was set for the minimum number of participants based on an a priori power analysis. To obtain statistical test power greater than .80 for detecting a moderate effect size of .30 via regression analyses with 5 predictors ( $p < .05$ ), a minimum of 121 participants was needed. International students were recruited in three distinct phases. The study's procedures were approved by the institutional review board (IRB) at Arizona State University.

First, data collection started with flyers at ASU that included a QR code for the survey. In addition, this flyer was posted on the ASU international student Instagram page. The researcher also posted the flyer and link on their personal social media accounts, and it was subsequently shared by their friends and family. During this first phase, insufficient participants were recruited to meet the target sample number. Next, the researcher revised the IRB application by requesting approval to share the flyer and survey link on Reddit pages and Facebook groups tailored to international students, which still did not yield a sufficient sample size. Third, the researcher then decided to attend international student events at the Arizona State University campus to distribute the recruitment flyer in person and ask students to participate. In four days, the researcher attended 10 student events including (but not limited to) a "New Indian Student Welcome," "CPT and OPT Preparation for Chinese Students," and "Afternoon Board Game Night." After this third phase of recruitment was completed, 136 students completed the survey (out of 181 who started the survey).

## Participants

The demographic characteristics of the 136 students who completed the survey are summarized in Table 1. The students were from a variety of countries, with the largest number of students coming from India ( $n = 60$ , 44.1%), China ( $n = 9$ , 6.6%), and Indonesia, South Korea, and Vietnam (each,  $n = 6$ , 4.4%). Students came from 25 different universities and colleges throughout the United States with Arizona State University ( $n = 104$ , 76.5%) the most common university students attended. Of the students, 73 were female (53.7%), 62 were male (45.6%), and 1 participant preferred not to answer (0.7%). The age range of participants was between 18-50 years old ( $M = 24.9$ ,  $SD = 5.32$ ). In line with other survey studies among international students (Thies & Falk, 2023), race was not collected as a variable because the identification of race for international students does not fit the standard U.S. classification of race and is not central to the research questions (Jugert et al., 2022).

Participants had spent between 0 and 264 months in the United States ( $M = 22.34$ ,  $SD = 35.54$ ). When asked about prior travel experiences to the United States, 45 (33.1%) participants indicated having traveled to the United States prior to their study abroad, and 91 (66.9%) participants indicated not having traveled to the United States prior to their study abroad. Among the students who have previously traveled to the United States, participants spent, on average, a combined time of between 1-2 weeks in the United States, based on the average number of weeks reported ( $M = 1.33$  weeks,  $SD = 0.47$ ).

Participants learned about the United States through various channels. The most frequently selected channels were (as ranked from 1 = not at all to 5 = a great deal): the university website ( $M = 3.67$ ,  $SD = 1.18$ ), direct contact with the university ( $M = 2.65$ ,

$SD = 1.121$ ), and family or friends in the United States ( $M = 2.61$ ,  $SD = 1.36$ ). A total of 37 (28.7%,  $M = 0.75$ ,  $SD = 1.63$ ) students in this study reported having family members in the United States.

## **Measures**

Several variables were measured to understand how expectancy violations and social capital associated with international student experiences.

**Positive Expectancy Violations.** Given the lack of work looking at expectancy violations in this context, items were created to measure the degree to which students felt their expectations in a number of areas were violated positively versus negatively, in accordance with the Expectancy Violation Theory (EVT). An exploratory factor analysis using the maximum likelihood method and Oblim extraction was then used to determine the factor structure of these newly developed items. All items measuring the expectancy violations international students experienced (e.g., regarding university support, U.S. Americans, and international students) were included in the analysis and were measured on a 5-point Likert scale coded so that 5 = a lot more than expected, 4 = more than expected, 3 = neither more nor less than expected, 2 = less than expected, and 1 = a lot less than expected. See Table 1 for factor loadings from the pattern matrix and the wording of the items.

All 17 items were initially entered into the factor analysis. However, one item, “When I face challenges, I can seek support from U.S. Americans,” did not load clearly on any factor, and was therefore excluded from the final analysis. After the remaining 16 items were entered, four factors with eigenvalues greater than 1.0 emerged,  $\chi^2(120, n = 134) = 1559.65$ ,  $p < .001$ , KMO = .83: (1) Positive expectancy violations about university

support ( $n = 5$ ), (2) positive expectancy violations about U.S. Americans' behavior ( $n = 2$ ), (3) positive expectancy violations about inclusion with U.S. Americans ( $n = 3$ ) and (4) positive expectancy violations about international students ( $n = 6$ ). These four factors accounted for 76.84% of the variance. Factor loadings from the pattern matrix are shown in Table 1.

Items that loaded together under each factor were averaged to create scales measuring expectancy violations about university support ( $\alpha = 0.85$ ,  $M = 3.63$ ,  $SD = 0.75$ ), U.S. Americans' behavior ( $\alpha = .90$ ,  $M = 3.42$ ,  $SD = 1.04$ ), inclusion with U.S. Americans ( $\alpha = .87$ ,  $M = 2.86$ ,  $SD = 1.18$ ), and international students ( $M = 3.65$ ,  $SD = 1.00$ ). Considering the research specifically focuses on the expectations in the relationship of international students, the inclusion by U.S. Americans is considered as a variable to test the hypothesis. Higher scores represent more positive expectancy violations, whereas lower scores represent more negative expectancy violations.

Table 1

*Factors and factor loadings for Expectancy Violations*

| Factors and Items                                                              | Primary Loading |
|--------------------------------------------------------------------------------|-----------------|
| <b>Factor 1: Positive Expectancy Violations about University Support</b>       |                 |
| The staff at the university invites me to events                               | .58             |
| The staff at the university is friendly                                        | .70             |
| The staff at the university will help me if I face challenges in life          | .83             |
| The staff at the university supports students like me                          | .82             |
| The staff at the university cares if I feel alone                              | .67             |
| <b>Factor 2: Positive Expectancy Violations about U.S. Americans' Behavior</b> |                 |

|                                   |     |
|-----------------------------------|-----|
| U.S. Americans are friendly to me | .73 |
| U.S. Americans are supportive     | .97 |

**Factor 3: Positive Expectancy Violations about Inclusion with U.S. Americans**

|                                                           |      |
|-----------------------------------------------------------|------|
| I have made friends with U.S. Americans                   | .63  |
| I can call on U.S. Americans to do something fun together | 1.00 |
| I am invited to activities by U.S. Americans              | .68  |

**Factor 4: Positive Expectancy Violations about International Students**

|                                                                        |     |
|------------------------------------------------------------------------|-----|
| I have made friends with international students                        | .81 |
| When I face challenges, I can seek support from international students | .91 |
| International students are friendly to me                              | .84 |
| I can call on international students to do something fun together      | .88 |
| I am invited to activities by international students                   | .88 |
| International students are supportive                                  | .88 |

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**Acculturation.** The level of acculturation was measured through the modified “Cultural Adaptation and Adjustment Scale” (CAAS) by Portes et al. (2007). The scale measures four aspects of cultural adjustment, namely, pain, learned helplessness, cultural insensitivity, and positive adaptation. For the purpose of this study, the five strongest loadings for positive adaptation from the original study by Portes et al. (2007), which Portes et al. reported as measuring “adequate functioning, a clear sense of identity and well- being” (p. 12) were included in the survey ( $\alpha = 0.89$ ). The subscale on positive adaptation was selected due to its direct applicability to the research topic. These items included questions such as “I feel adequate functioning in this society,” “I feel like I have a clear identity in this culture,” and “I have deep roots in this country.” Items were

measured on a 5-point Likert scale ranging from 1 = “strongly disagree” to 5 = “strongly agree” and then averaged ( $M = 3.60$ ,  $SD = 0.89$ ). A higher score represents higher degrees of acculturation.

**Perceived loneliness.** Perceived loneliness was measured using Russell et al.’s (1978) UCLA Loneliness scale. This scale, which consists of 20 items measuring self-perceived loneliness, was selected due to its widespread use in social science research, as evidenced by a summary of the literature (Goossens et al., 2014) and a meta-analysis (Pinquart & Sorensen, 2001). Items included statements such as “I have nobody to talk to” and “There is no one I can turn to” and were rated on a scale ranging from 1 = “strongly disagree” to 5 = “strongly agree. In the original measure, scales were rated using a 4-point scale (never, rarely, sometimes, often). This was changed to a Likert-scale so that the intervals would be more equally spaced (i.e., never and always are opposites rather than never and often) and to create a scale that would likely produce more variability by giving participants 5 options instead of 4 and eliminating an extreme option (never). Items were subjected to factor analysis (as described above) to ensure that the items created a unidimensional when answered by a diverse sample of international students using the Likert-type format. In the initial factor analysis, two items produced split factor loadings (“I am unhappy doing so many things alone” and “I cannot tolerate being so alone”) and were removed before conducting the final analysis. Cronbach’s alpha for the remaining 18 items was  $\alpha = 0.97$  with items averaged to create a loneliness measure ( $M = 2.38$ ,  $SD = 0.93$ ). A higher score indicates a higher level of loneliness.

**Psychological well-being.** The psychological well-being of students was measured using two existing scales that conceptualize well-being somewhat differently.

One of these scales (the WHO-5; Staehr, 1998) focuses on emotional well-being as a sign of mental health, whereas the other is geared toward flourishing as an indicator of overall well-being (the Flourishing Scale; Diener et al., 2010). To determine how the items from these two scales group together, an exploratory factor analysis using the maximum likelihood methods with oblim rotation was conducted. This analysis produced two factors with eigenvalues greater than 1.0, with the two factors representing each of the scales,  $\chi^2(78, n = 131) = 1135.60, p < .001, KMO = .90$ . These two factors accounted for 65.66% of the variance. Table 2 presents the factor loadings from the pattern matrix following rotation.

The first scale, the WHO-5 (Staehr, 1998), focuses on people's current level of emotional well-being. Items from the WHO-5 were drawn from the longer WHO-10 (Bech et al., 1996). For the WHO-5, only positive items were included so that the scale focuses on indicators of mental health separate from indicators of depression or anxiety. The widely used WHO-5 includes items such as "Over the past two weeks, I have felt cheerful and in good spirits" and "Over the past two weeks, my daily life has been filled with things that interest me." Endpoints for the items range from 1 = "At no time" and 6 = "All of the time." For this study, items were averaged to create an index of emotional well-being and mental health ( $\alpha = .90, M = 4.08, SD = 1.01$ ), with a higher score indicating better overall well-being.

The second measure used was the Flourishing Scale (Diener et al., 2010). This scale consists of 8 items measuring psychological well-being based on a person's perceived positive sense regarding self-esteem, purpose in life, optimism, and relationships. Items were measured on a 7-point Likert scale ranging from 1 = "Strongly

disagree” to 7 = “Strongly agree” ( $\alpha = .91$ ,  $M = 5.70$ ,  $SD = 0.93$ ). Sample items include: “I actively contribute to the happiness and well-being of others” and “I am optimistic about my future.” Items were averaged to create an index of overall flourishing, with a higher score indicating higher well-being.

Table 2

*Factors and factor loadings for the Well-Being items*

| Item                                                                              | Primary loading |
|-----------------------------------------------------------------------------------|-----------------|
| <b>Factor 1: WHO-5</b>                                                            |                 |
| Over the past 2 weeks, I have felt cheerful and in good spirits                   | -.72            |
| Over the past 2 weeks, I have felt calm and relaxed                               | -.75            |
| Over the past 2 weeks, I have felt active and vigorous                            | -.80            |
| Over the past 2 weeks, I woke up feeling fresh and rested                         | -.90            |
| Over the past 2 weeks, my daily life has been filled with things that interest me | -.68            |
| <b>Factor 2: Flourishing</b>                                                      |                 |
| I lead a purposeful and meaningful life                                           | .76             |
| My social relationships are supportive and rewarding                              | .61             |
| I am engaged and interested in my daily activities                                | .64             |
| I actively contribute to the happiness and well-being of others                   | .77             |
| I am competent and capable in the activities that are important to me             | .75             |
| I am a good person and live a good life                                           | .91             |
| I am optimistic about my future                                                   | .81             |
| People respect me                                                                 | .55             |

**Social Capital.** Social capital was measured using an adapted version of the Glass and Gesing (2018) social capital scale ( $\alpha = 0.97$ ). This scale poses 9 common challenges students might encounter and need support with, which was the reason this scale was selected. The scale was adapted for the context of the study. Some items were reworded for simplicity and focused on the student (e.g., ‘ask for help when I am sick’ rather than ‘assisting each other if someone is sick’). Furthermore, the phrase ‘in the United States’ was included for each of the items to specifically align with the focus of the study. For example, in the section “In the United States, I have people with whom I can...” it features items such as “share meals together,” “borrow from each other,” and “Ask for help when I am sick.”. These items were rated on a Likert scale from 1 = “strongly disagree” to 5 = “strongly agree” and then averaged ( $M = 4.32$ ,  $SD = 0.72$ ). A higher score indicated a higher level of social capital.

## CHAPTER 3

### RESULTS

#### **Data analytical strategy**

The data were analyzed using SPSS v.28.0. All hypotheses were tested using hierarchical regression analyses. Two control variables were entered in the first block: educational level and number of months in the United States. Educational level was chosen as a control variable because a one-way ANOVA showed that participants reported significantly different levels of acculturation based on their educational level,  $F(2, 130) = 3.58, p < 0.05$ , eta squared = .05, with a Tukey-B range test showing that doctoral students reported less acculturation ( $M = 3.24, SD = 0.98$ ) than masters ( $M = 3.67, SD = 0.89$ ) or undergraduate ( $M = 3.78, SD = 0.71$ ) students. Based on these findings, before entering educational level as a control variable in the regression analyses, effect coding was applied as follows: Undergraduate and masters students = 1 and Ph.D. students = -1. Number of months in the United States was significantly correlated with positive expectancy violations about inclusion with U.S. Americans ( $r = .23, p < .001$ ). No other potential control variables were significantly associated with the variables of interest in this study and were therefore not used as control variables. Table 3 contains the correlations among the variables of interest in this study.

Table 3

*Correlations between variables*

|                                                                        | V1     | V2     | V3     | V4    | V5     | V6     | V7    | V8   |
|------------------------------------------------------------------------|--------|--------|--------|-------|--------|--------|-------|------|
| V1: Positive Expectancy Violations about University Support            |        |        |        |       |        |        |       |      |
| V2: Positive Expectancy Violations about U.S. Americans                | .35**  |        |        |       |        |        |       |      |
| V3: Positive Expectancy Violations about Inclusion with U.S. Americans | .28**  | .55**  |        |       |        |        |       |      |
| V4: Positive Expectancy Violations about Fellow International students | .25**  | .11    | .24**  |       |        |        |       |      |
| V5: Acculturation                                                      | .39**  | .25**  | .41**  | .17*  |        |        |       |      |
| V6: Loneliness                                                         | -.32** | -.26** | -.32** | -.28* | -.29** |        |       |      |
| V7: WHO-5 (Well-Being)                                                 | .33**  | .16    | .29**  | .30** | .38**  | -.45** |       |      |
| V8: Flourishing                                                        | .39**  | .11    | .34**  | .29** | .47**  | .51**  | .65** |      |
| V9: Social Capital                                                     | .05    | .39**  | .20*   | .03   | .07    | -.15   | .01   | -.02 |

\* indicates a  $p < .05$ \*\* Indicates a  $p < .01$ 

Two-tailed

It is also noteworthy that the items referencing expectancy violations regarding U.S. Americans are grouped into two factors (see Chapter 2)-- one regarding positive

expectancy violations about U.S. Americans' behavior (i.e., how friendly and supportive they are) and another regarding positive expectancy violations about inclusion with U.S. Americans. For this dissertation, and consistent with the reasoning behind the hypotheses, the measure related to inclusion will be used to test the relevant hypothesis. The measure related to U.S. American behavior will be included as an extra predictor variable.

**Acculturation.** H1 predicted that acculturation is associated with the extent to which expectations about (a) university support, (b) U.S. American friendships (i.e., inclusion), and (c) international students are violated positively rather than negatively. The regression model was significant after the control variables were entered in the first block,  $F(2,129) = 4.30$ ,  $R = .25$ , adjusted  $R^2 = .06$ ,  $p < .05$ . Adding the four expectancy violations variables in the second block significantly improved the model,  $F(4,125) = 9.95$ ,  $R = .57$ , adjusted  $R^2 = .29$ ,  $F_{\text{change}} = 12.04$ ,  $p < .001$ . As shown in Table 4, doctoral students and undergraduate/masters students differed in acculturation, with effect coding reflecting the ANOVA results (see above). The other control variable, months in the U.S., was not significantly associated with acculturation. In terms of H1, partial support was obtained. Specifically, when university support and inclusion with U.S. Americans was higher than expected, students reported more acculturation, supporting H1a and H1b. Expectancy violations regarding international students were not significantly associated with acculturation, thus H1c was not supported. Expectancy violations regarding U.S. Americans's behavior were also not significantly associated with acculturation.

**Loneliness.** H2 predicted that the extent to which international students' expectations about (a) university support, (b) U.S. American friendships (i.e., inclusion), and (c) international students are positively rather than negatively violated would be

inversely associated with loneliness. After the two control variables were entered in the first block, the model was not significant  $F(2,127) = .86$ ,  $R = .12$ ,  $p = .43$ . When the four expectancy variables were entered in block two, the model was statistically significant,  $F(4, 123) = 5.24$ ,  $R = .45$ , adjusted  $R^2 = .17$ ,  $F_{\text{change}} = 7.34$ . Table 4 shows that educational level and number of months in the U.S. were not significantly associated with students' loneliness. In terms of Hypothesis 2, only the expectancy violations about university support (H2a), and international students (H2C) showed the predicted significant negative associations with international students' loneliness. Positive expectancy violations about inclusion with U.S. Americans (H2b) were not significantly related to loneliness. Therefore, Hypothesis 2 was partly supported, with two of the three predictor variables obtaining significance. In addition, positive expectancy violations about U.S. Americans' behavior was also not associated with loneliness.

**Psychological well-being and flourishing.** Hypothesis 3 predicted that the extent to which international students' expectations about their (a) university support, (b) U.S. American friendships (i.e., inclusion), and (c) international students are positively rather than negatively violated are associated with greater perceptions of psychological well-being. As described in the method section, this hypothesis was tested using two measures for psychological well-being.

In the model with the WHO-5 well-being scale as a dependent variable, the model was non-significant after adding the control variables in block model  $F(2, 127) = .94$ ,  $R = .12$ ,  $p = .39$ . Adding the four expectancy variables in block two made the model statistically significant,  $F(4, 123) = 5.53$ ,  $R = .46$ , adjusted  $R^2 = .17$ ,  $F_{\text{change}} = 7.73$ . In the final model, the control variables were not significantly associated with well-being. As

shown in Table 4, the expectancy violations variables implicated in Hypothesis 3 were all significantly associated with well-being as predicted. Specifically, positive expectancy violations about the university support (H3a), inclusion with U.S. Americans (H3b), and international students (H3c) were significantly and positively associated with well-being, in support of Hypothesis 3. Expectancy violations about U.S. Americans' behavior, however, was not significantly associated with well-being as measured by the WHO-5.

The second measure for psychological well-being was the Flourishing Scale. The two control variables were not significantly associated with flourishing after they were entered in Block 1,  $F(2, 125) = 1.45$ ,  $R = .15$ ,  $p = .24$ . Adding the four expectancy variables in the second block significantly improved the model,  $F(4, 121) = 7.52$ ,  $R = .52$ , adjusted  $R^2 = .24$ ,  $F_{\text{change}} = 10.34$ ,  $p < .001$ . As indicated in Table 4, the three expectancy violations implicated in Hypothesis 3 were all significantly associated with flourishing. Therefore, H3 was fully supported when both the WHO-5 and Flourishing were used as dependent measures representative of well-being. Positive expectancy violations about U.S. American behaviors, which was an additional variable, did not obtain significance in the model for flourishing (or for the WHO-5, as noted above).

Table 4

*Predictors in the final regression models*

| Dependent variable | Predictors                  | $\beta$ | $t$     |
|--------------------|-----------------------------|---------|---------|
| Acculturation      | Education level             | .29     | 3.73**  |
|                    | Months in the United States | .06     | .75     |
|                    | University support          | .28     | .3.38** |
|                    | U.S. American Inclusion     | .36     | 3.86**  |

|                |                             |      |          |
|----------------|-----------------------------|------|----------|
| Loneliness     | International students      | .05  | .65      |
|                | U.S. American Behavior      | -.05 | -.49     |
|                | Education level             | -.04 | -.45     |
|                | Months in the United States | -.13 | -1.43    |
|                | University support          | -.25 | -2.77*** |
|                | U.S. American Inclusion     | -.11 | -1.03    |
| WHO-5          | International students      | -.17 | -2.01*   |
|                | U.S. American Behavior      | -.12 | -1.15    |
|                | Education level             | .16  | 1.89     |
|                | Months in the United States | -.02 | -.21     |
|                | University support          | .22  | 2.48**   |
|                | U.S. American Inclusion     | .22  | 2.15*    |
| Flourishing    | International students      | .22  | 2.62**   |
|                | U.S. American Behavior      | -.05 | -.49     |
|                | Education level             | .09  | 1.07     |
|                | Months in the United States | .15  | 1.78     |
|                | University support          | .36  | 4.11***  |
|                | U.S. American Inclusion     | .27  | 2.71***  |
| Social Capital | International students      | .14  | 1.78*    |
|                | U.S. American Behavior      | -.17 | -1.72    |
|                | Education level             | -.11 | -1.10    |
|                | Months in the United States | .07  | .69      |
|                | Acculturation               | .16  | 1.54     |
|                | Loneliness                  | -.17 | -1.62    |
|                | WHO-5                       | .05  | .43      |

| Flourishing | -.18 | -1.39 |
|-------------|------|-------|
|-------------|------|-------|

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*Notes.* \* indicates  $p < .05$ ; \*\* indicates  $p < .01$ ; \*\*\* indicates  $p < .001$ ; p-values for hypothesized associations are one-tailed.

**Social capital.** The last hypothesis, H4, predicted that the extent to which international students' report having social capital is (a) positively related to acculturation, (b) negatively related to loneliness, and (c) positively related to well-being. The regression model was not significant after the control variables were entered in the first block,  $F(2, 124) = .82$ ,  $R = .11$ ,  $p = .44$ . Adding the variables representing acculturation, loneliness, and well-being (the WHO-5 and the Flourishing Scale) in the second block did not significantly improve the model,  $F(4, 120) = 1.33$ ,  $R = .25$ ,  $F_{\text{change}} = 1.58$ ,  $p = .25$ . Therefore, Hypothesis 4 was not supported.

## CHAPTER 4

### DISCUSSION

“Temper your expectations” is a commonly used phrase to tell people to set their expectations lower. For a long time, people intuitively understood the impact of expectations on individuals’ experiences and well-being. Burgoon’s (1978) Expectancy Violations Theory provides a theoretical framework to empirically assess and understand the impact of expectancy violations on people’s behaviors and relationships. My work sought to understand how expectancy violations function within the context of international students studying abroad. Specifically, this study investigated how expectancy violations about university support, inclusion with U.S. Americans, and inclusion with other international students relate to acculturation, loneliness, and well-being. The research also sought to understand how social capital relates to these factors, considering many international students need to establish new social capital in the country they move to. Discussed are the theoretical implications of the current research findings, practical implications of the findings, limitations of the research, and future opportunities.

#### **Theoretical implications**

The results from this study align with predictions from expectancy violations theory. According to the theory, positive expectancy violations are associated with favorable outcomes (Burgoon, 1978, 2015; Floyd et al., 2008). In the current study, when international students received more university support than they expected, they tended to report more acculturation, lower loneliness, and higher well-being. Similarly, when international students had their expectations about inclusion with U.S. Americans

positively violated, they reported experiencing more acculturation and higher well-being. When they had their expectations about other international students positively violated, they tended to report more well-being and less loneliness. Findings for well-being were consistent across both the WHO-5 measure of positive well-being and the flourishing measure. Together, these findings show that positive expectancy violations about university support and inclusion with U.S. Americans and other international students are associated with better outcomes for international students while studying abroad. Given how expectancy violations were measured in this dissertation, the reverse is also true—negative expectancy violations related to university support, inclusion with U.S. Americans, and inclusion with other international students were associated with poorer outcomes. It is also noteworthy that for expectancy violations about U.S. Americans, only the measure of inclusion showed significant associations with the dependent measures. Expectancy violations about U.S. Americans' behavior (i.e., friendliness and supportiveness), whether positive or negative, were not significantly associated with acculturation, loneliness, or well-being.

It is important to note that this study only focused on one component of EVT— the valence (positive or negative) of the expectancy violation. A more complete application of the theory would have included additional variables. Another key variable in EVT is reward value, which is also called rewardingness (Floyd et al., 2008). People who are attractive, high-status, and have likable personalities are considered more rewarding and can get away with violating expectations more than those with lower reward value (Floyd et al., 2008). For this study, the general degree of reward value that international students ascribe to U.S. American students and fellow international students could play a role in

how they respond to expectancy violations. For example, if they see U.S. American students as highly rewarding but their expectations about inclusion with them are negatively violated, they might fight harder to try and make friends with them. Similarly, if they idealize their university as one of the best colleges in the U.S. that they could attend, the high reward value of the university could interact with the valence of the expectancy violation (positive vs. negative) to affect outcomes. EVT predicts that people tolerate negative expectancy violations more if the source of the expectancy violation is highly rewarding. Therefore, if an international student holds the university they are attending in especially high regard, negative expectancy violations may not affect them as much. All of these ideas require testing in future studies to see how the valence of the expectancy violation (positive vs. negative) and the reward value (high vs. low) of the source of the violation work together to predict student experiences.

While the present study looked at expectancy violations, it did not examine the types of expectations students had (e.g. how many friends students expected to make or what they expected to do with the friends). From both a theoretical and practical standpoint, it is important for future research to determine what international students' expectations are. If universities understand what expectations international students have, they can better meet or exceed those expectations. Understanding common expectations can also provide guidelines for the scope of expectancy violations to examine when testing EVT. For example, if there are common expectations about available technology or common stereotypes about the college experience in the U.S., expectancy violations related to technology and the college experience could be important to examine.

Finally, another component within EVT is the behavioral response (Burgoon, 1978). According to EVT, when a rewarding person engages in a positive expectancy violation, the receiver will reciprocate by being positive toward the person who violated their expectations (Floyd et al., 2008). This could be applied to international students' experiences. For example, if an international student interacts with a U.S. American student (who they see as rewarding) and the U.S. American student is especially friendly and invites them to a study group or party, the international student is likely to reciprocate by being friendly back and attending the event. This type of pattern may perpetuate making friends and feeling more comfortable and confident.

Potentially the most interesting finding of this research is that there were many significant associations between expectancy violations and the dependent measures, but social capital, in contrast, was not associated with acculturation, loneliness, or well-being. This is surprising given past research, which has shown that social capital was previously linked to assimilation (Liang, 1994), acculturation (Tutu & Busingye, 2020), psychological (dis-)comfort (Hung et al., 2013), loneliness (Coll-Planas et al., 2017), and acculturative stress (Archuleta & Teasley, 2013). This suggests that it is not the actual relationships we form but the expectancies we have about the relationships that hold greater strength in our day-to-day experiences. This contrast is especially clear when looking at the results for expectancy violations related to inclusion with U.S. Americans versus the results for social capital. The expectancy violations measure captures the extent to which international students' level of social inclusion with U.S. Americans was more or less than what they expected it would be, whereas the social capital measure assessed the degree of social capital international students had accumulated since arriving

for their study abroad program. Given the findings, it was the expectancy violations that mattered, not the level of social capital attained.

### **Practical implications**

These findings have practical implications in that universities should care about the expectations they set for international students. They need to be careful to set expectations in a realistic manner to maximize the probability that student expectations will be met or positively violated rather than negatively violated. They also need to provide adequate resources to be able to meet or exceed expectations. On the other hand, if they set expectations too low, then students might not be attracted to their program. Universities should also consider strategies for helping students meet challenges related to acculturation, loneliness, and psychological well-being given the overall pattern of associations found in this study.

**Expectations regarding university support.** There are some strategies universities can apply that might help them meet or exceed international students' expectations about the social support they will receive. First, realistic expectations should be set. Pre-departure training can help prepare students for the challenges they might face and should provide strategies for how students can overcome these challenges. Pre-departure training has been described in research as a potentially useful tool for those moving abroad to get familiar with the culture they move to (e.g. AlMazrouei & Pech, 2014; Dunlap & Mapp, 2017). For example, AlMazrouei and Pech (2014) describe how expats created awareness of cultural norms in the UAE, helping to reduce potential cultural mishaps such as shaking hands with local women. Dunlap and Mapp (2017) found that students who did pre-departure training for an internship abroad experienced

more growth at the end of their internship as compared to those who did not take the training. More research should be conducted to understand exactly what support international students expect from their university as well as gain insight into how students navigate the support resources provided by the university. For example, focus groups could be established to understand what students expect, and to gather information from the international students on what a pre-departure training should look like. These data could be collected through ‘entrance’ and ‘exit interviews’ with students, which would allow to gain a better sense of their expectations and their lived experiences respectively.

Second, considering the importance of university support on students’ experiences, students should be helped to navigate the support resources available by the university. Without such help, they may be more likely to feel that their expectations about university support have been negatively violated. They may have expected to have resources but then not know how to access them. The survey items related to the support of university staff highly focused on the support and care students expected. International programs at universities typically have 100s if not 1000s of students, with leading institutions such as New York University hosting as many as 24,496 international students (Institute of International Education, 2023b). As university staff working at the international office of a university, it is impossible to personally know and support every student. It is therefore important that the university staff gets sufficient training and resources to deliver personalized experiences without the need to know students personally. Caring for international students can also extend beyond the support of the international programs staff and can include other university staff members. The

connection between these campus resources is important in ensuring that students don't fall between the cracks of the disconnect of different university support resources. In addition, providing more resources for various staff members could help faculty and staff to facilitate tailoring the educational experience to a more international audience. As Kingston and Forland (2007) explained, students are not familiar with educational practices, and faculty members have (false) ideas about students' academic abilities and academic engagement. These researchers also note that there is little to no adjustment in teaching to accommodate the growing diversity of students, which they explain indicates a lack of guidance for faculty members on how to work with diverse students. Proactive training of faculty and staff might aid international programs in increasing the perceived care from the staff at the university, which could help the university meet or exceed initial expectations about university support.

For students, attending university events is important to establish that connection. One challenge students are facing, however, is a potential lack of knowledge about events happening (Flaherty, 2023a), which might limit students' ability to become involved. Flaherty (2023b) further highlights a student voice who explains that many events are not advertised on campus and events are challenging to keep track of. Providing comprehensive resources on all events occurring might improve students' awareness of and attendance at events. Relating this back to expectations, if students had read that there are a lot of activities on campus but then did not hear about activities after arriving, their expectations would likely be negatively violated.

While it is important for universities to provide sufficient support for international students so that their expectations are met or positively violated, it is important to set

expectations correctly. As the expectancy violation theory (Burgoon, 2015) explains, if expectancies are set incredibly high, meeting the expectations is not only challenging, but the reward valence of meeting or exceeding the expectation is low. When expectations are low but are positively violated, the reward valence is high. What this means is that if universities set their expectations about support incredibly high, and they are met or exceeded, students likely feel only a little more positive about the university support, even if the university does its best to support students. However, if the expectations were low and the support exceeded expectations, students feel much more positive about the university's support. Considering universities have great financial gains through international education (Institute of International Education, 2023a), portraying the university as appealing is in the best interest of the university. If the recruitment strategies are disproportionate compared to the support students will actually receive, students likely face negative outcomes. Universities should therefore set realistic expectations about what students will face during their time at the university. This could, for example, include an up-to-date list of on-campus activities with prices of partaking in such activities displayed. Additionally, clearly explains what activities students are allowed to participate in based on their field of study or background.

**Relationships with U.S. Americans and Internationals.** As evident in the data, perceptions of social capital are not significantly related to self-reported loneliness, improved acculturation, and well-being. The valence of the expectancy violations about inclusion by U.S. Americans and the relationship with fellow international students are positively or negatively violated does, however, relate to acculturation, loneliness, and well-being. This is important because building social capital by itself is not related to

these variables, so supporting students solely in establishing social capital may not be as important as making sure that their expectations are met or exceeded.

This means that in order to support students as they face challenges related to acculturation, loneliness, and well-being, expectations should be set correctly. Imagine two international students who have made a couple of friends since arriving in the U.S.. If one of these students expected to have difficulty making friends, having a couple of friends would be a positive expectancy violation. If the other students expected to be popular and have lots of friends, their expectations would be negatively violated if they only had two friends. Again, there is a balancing act here. Universities want prospective students to imagine themselves fitting in and making friends so that they will want to study abroad, but if expectations about their social experience are set too high, it will be difficult to meet or exceed those expectations.

Universities should consider how they portray the international student experience in their outreach and marketing material, as this might give unrealistic expectations. One example in which universities set expectations about relationships students might expect to form is through images on marketing materials. As Ford and Cate (2020) posed, these images are promoted by universities to show racial diversity, and the representation “can be artificially constructed” (p. 1205). Some universities and colleges offer host family stays, which allows students to live with a local family. However, as Rodriguez and Chornet-Roses (2014) revealed, less than a third of students residing in host families described the relationship to be a family experience. Rodriguez and Chornet-Roses (2014) also revealed that students established these expectations in three ways, “their own family experiences, program administrators, and friends who had previously lived

with hosts” (p. 167). Although universities cannot control students’ personal family references in understanding “family,” nor can they influence the way students' friends have experienced host families, they can set truthful expectations of living with a host family. Considering programs typically marketed portraying international students in close relationships with their host families (e.g. sharing meals or activities together), these images should be used with caution. Expectancy setting about the development of the relationships, providing guidelines on how to establish such relationships, and accurately representing student experiences beyond group photos might help students deal with their acculturation, loneliness, and well-being better. Additionally, constructing matching programs that match students with host families that offer similar realities to their expectations can lead to better experiences. However, more research should be conducted on how more realistic expectation setting in these instances contribute to expectancy violations.

**Acculturation.** Acculturation was an important variable as people moving abroad typically have some degree of cultural change they experience. Prior research on this topic showed that time typically creates a U-curve model of adjustment (Lysgaard, 1955) in which people first experience excitement about their move, followed by challenges during the culture shock stage. With sufficient time, those who have moved abroad should start becoming more comfortable. Putting a timeline on this process is complicated, as Sam (2006) explains, the individual motivations for moving, as well as the intention of staying in a place can all affect how motivated or likely people are to acculture. Our study did not find a significant relationship the number of months participants are in the United States and their self-reported acculturation. This may

suggest that acculturation does solely happen over time, but that students might each have a different point of departure regarding how much they feel the acculturated; meaning, some students might feel very acculturated and only acculture slightly, whereas other students might make much greater leaps of acculturation. More research should be conducted on the topic of acculturation to understand how this functions for international students specifically.

Universities need to understand the role they could play in this acculturation process. However, universities should also consider whether acculturation should be a priority to push for students, especially considering facets of acculturation relate to deculturation (disconnect from original culture; Kim, 2017). Although the percentages of students who can stay in the United States vary by major and education level, a significant portion of students do not stay in the United States for long periods beyond their graduation. Corrigan et al. (2022) found that of all international Ph.D. graduates in the United States, 74% stayed in the United States, with engineering students reaching a high of 79% of students staying and non-STEM doctorates reaching a 55% stay rate. When asked, 70% of international STEM Ph.D. students indicate an intent to stay in the United States upon graduating (Zwetsloot et al., 2020), however, this number varies based on major and country of origin, with some fields indicating a desire to stay at a 90%. Esaki-Smith (2022) found that 82% of graduates across levels desire to stay in the United States for a few years, indefinitely, or pursue further education in the United States, and 71% of students indicated they would stay if immigration was easier. Although exact numbers of stay rates are challenging to obtain for bachelor and master students due to a variety of reasons highlighted by Beine et al. (2022), only 12% of

international bachelor graduates were able to find in-state employment on the short-term Optional Practical Training (OPT) permit. It could be likely that students are hesitant to fully acculturate when the opportunity to stay in the country remains uncertain.

Interestingly, prior research found that international student relationships were an important factor for acculturation (Kashima & Loh, 2006). This research also found that acculturation was not related to social ties, reflecting similar results to this study. It might not be in the best interest of universities to spend considerable effort to attempt to support students in the acculturation process, instead, focusing on aspects of loneliness and well-being might take priority.

**Loneliness.** As evident from the data and prior research, loneliness among international students is highly prevalent (e.g. Bilecen et al., 2023; Maleku et al., 2022) and could have negative outcomes for students (e.g. Maleku et al., 2022; Nicpon et al., 2006; Richardson et al., 2017). The data in this research shows the association between the expectancy violation of support from the university and the expectancy violation of international student relationships to be related to the experience of loneliness. The role of the university cannot be underestimated in this process, considering they likely also greatly impact the connections between international students due to the abovementioned involvement in new student orientation. The directionality of this relationship is not possible to determine in this research. In addition, considering students were predominantly recruited through campus events, students represented might have greater involvement in the university community as well as a potentially lower degree of loneliness.

Although social capital in the country is not related to the degree of loneliness students experience, finding some people to engage in activities with likely helps students manage their loneliness. Students might not need a sizable social network, but having a couple of close friends whom they could confide in and connect with might help them feel less lonely. As Thompson et al. (2022) explain, with four close friends, the impact of more close friends diminishes the effect on loneliness. It is therefore important that universities do not increase an effort for students to solely increase their number of friends, but foster closeness in friendships. Smaller, more intimate events in which students can more easily connect on a personal level might provide greater success in attaining this type of relationship. One way in which universities could implement such smaller communities is through mentorship groups as previous research has shown that cross-cultural mentorship can improve the initiation of cross-cultural friendships (Woods et al., 2013).

One way in which universities have historically attempted to strengthen university culture and increase connection with others is through dormitories (Yanni, 2019). Dormitories can function like a smaller, close-knit community that might help in creating these few strong friendships. Students who have roommates show lower levels of loneliness in comparison to those who do not (Henninger et al., 2016). In particular for international students, dormitories can provide an easy segway to entering the university considering navigating housing options in a foreign country can be confusing, complicated, and if done wrong (e.g. not finding housemates, signing unlawful leases, housing scams), it can be expensive. Hudson (2018) describes that many universities have embraced the use of random roommate assignment, although, Hudson does note that

their research shows that discomfort, frustrations, and even friendship breakups are also major risks of randomly assigned dormitory experiences. In particular, Hudson (2018) notes that risks for minority communities could be high. Hudson (2018) notes that dormitories could provide great opportunities to establish these types of relationships if guidance and interpersonal engagement in meaningful ways are provided in the resident communities. For example, dormitories could establish events that connect people living on the same floor or building that stimulates smaller, more intimate relationships between the people living closest to the students.

**Well-being.** The last variable measured was well-being, which was measured through both the Well-Being Index (WHO-5; Staehr, 1998) and the Flourishing Scale (Diener et al., 2010). It is evident from the data that the expectations of support from the university, inclusion from U.S. Americans, and the relationship with international students are all related to both variables.

First, psychological well-being, through the framing of the questions focuses more strongly on the current psychological state of students. Students indicated experiencing more positive psychological well-being as a mean score of approximately “more than half of the time”. It should be noted that the majority of students were recruited through on-campus student events, meaning, students who struggle with their well-being and might socially distance themselves are likely not represented in the research, especially considering Li et al. (2019) found the attitudes toward seeking help to relate to well-being and finding support from the university decreases psychological stress (Russell, 2005). Universities should create open spaces for students to seek support when struggling, in particular, because it is reported that students from different cultural

backgrounds (e.g. Asian students) might struggle more with their mental health (Han et al., 2013; Lu et al., 2014). Yet, these students utilize resources at lower rates (Cheng et al., 2018; Li et al., 2013). Cogan et al. (2023) argue for “culturally sensitive mental health practitioners and awareness of diverse understandings of mental health issues” (p. 1) to better support students facing challenges. On-campus cultural clubs could host workshops to address (psychological) well-being. This creates safe environments where people can connect with culturally similar groups of people facing similar experiences, which might normalize the conversation surrounding well-being.

The second component of well-being examined is students’ ability to flourish. As previously discussed, Diener et al. (2010) defined this as “having supportive and rewarding relationships, contributing to the happiness of others, and being respected by others” (p. 144). Considering international students move abroad with the desire for personal enrichment, among others (King & Sondhi, 2017), this variable is likely central to the overall experience international students have. Diener et al. (2010) describe that this measure was strongly developed with the idea of prosperity in mind and reflects components of self-actualization (e.g. “I am optimistic about my future”), esteem (e.g. “People respect me”), and love and belonging (e.g. “I actively contribute to the happiness and well-being of others”) as highlighted in the higher needs of Maslow’s hierarchy of needs (Maslow, 1943, 1954). Expectations about university support, inclusion of U.S. Americans, and international students were all significantly related to this variable. Universities might be able to implement a few ways to support students to flourish. First, setting expectations right about the students’ study abroad can help students to not overestimate the successes they might face when moving abroad. Second, providing

opportunities in which students can achieve a sense of flourishing. One way in which students could achieve this is through volunteering (Bowman et al., 2010). Volunteering allows students to get connected with the local community and other (international) volunteers (Vannier et al., 2021). In addition, volunteering was linked to increased perceived life purpose, decreased depressive symptoms, and increased physical activity (Salt et al., 2017).

### **Limitations**

Several limitations have to be acknowledged while interpreting the results of this cross-sectional study. First, due to challenges in the early stages of recruitment, a different recruitment strategy was established in which the researcher attended student events on campus. This strategy allowed the researcher to recruit participants more efficiently. This type of participant recruitment, however, has a few limitations to consider. For example, considering that a high proportion of students were recruited at university events, many participants were already active on campus, which could potentially affect their expectancy violations related to university support as well as interaction with other international students. In addition, a larger and more diverse sample would have allowed for an examination of possible differences due to country of origin and university and made these results more generalizable across international students from different places at different universities. Although the sample was somewhat diverse, most international students (over 76%) were attending Arizona State University, and over 44% of participants were from India.

Second, although this research shows relationships among the variables of interest, it does not provide a deeper understanding of the actual expectations students

have when moving abroad. For example, students might not realize that they might establish relationships with other international students as this group of students might not be on top of their minds when moving to another country. Additionally, the expectations they establish might reach far beyond the questions addressed in this research. It would be informative to ask students what expectations they have, given that they likely have many expectations beyond what they expect for university support and social interaction with host-country students and fellow international students. Therefore, more qualitative work is needed to understand exactly what students expect from their study abroad.

Third, the survey study is cross-sectional in nature, which does not allow us to assess causal relationships. Based on expectancy violations theory, when behavior or experiences violate expectations, people evaluate them as either positive or negative expectancy violations, leading to positive or negative outcomes, respectively. However, the results from this study only show associations. It is also plausible that students who have more trouble with acculturation or are lonelier, for example, are more likely to feel that their expectations have been negatively violated. Future research should use longitudinal methods to explore the associations found in this study over time.

### **Future directions**

This research provides important insight into the relationship between expectancy violations and international student experiences. Future research should focus on a few components, both theoretically and practically. First, on a theoretical level, future research should include other components of expectancy violations theory when examining how expectations function in the international student experience. As

discussed earlier in this dissertation, these variables include reward value and behavioral outcomes. For example, if students go to a university they experience as more rewarding or less rewarding (e.g. if a student expects to attend a state school but is able to go to a top ranked university versus a student who hoped to go to a top ranked university but goes to a state school instead), how will that change their response to expectancy violations and the tolerance of such from the university.

Second, longitudinal work could be performed to understand how pre-departure assumptions set the expectations for students and consequently, how the difference from the realities of a study abroad impact various aspects including acculturation, loneliness, and well-being. This will increase understanding about what contributes to establishing the expectations, what exact expectations students have, and how they were violated.

Third, research should be conducted on the expectations faculty and staff have of international students to understand the challenges and opportunities observed in working with international students. For example, university faculty members note that they perceive international students to struggle and underperform academically, where in reality they perform better than their domestic counterparts (Kingston & Forland, 2008). Providing resources for faculty and staff across the university can alleviate some of the stressors of the international student staff to know and support each individual student. Caution should be practiced, however, as multiple entities responsible for students' success might lead to a disconnect in knowing which entity is responsible for which student, allowing some already vulnerable students to go unnoticed between support entities.

Fourth, this research did not differentiate between social capital received from U.S. Americans and other international students. In measuring the social capital scale, students were asked “In the United States, I have people with whom I can...” followed by several common situations students might seek company in (e.g. “share meals together”). This survey did not specify whether they received that social capital from U.S. Americans or other international students. As previous research shows, international students typically have the desire to connect with U.S. Americans, but establishing these relationships can be challenging (e.g., Gareis, 2000; Hommadova & Mita, 2016; Pitts, 2009). Future work could differentiate between measuring social capital with U.S. Americans and measuring social capital with other international students (e.g., “In the United States, I know U.S. Americans with whom I can...” or “In the United States, I know international students with whom I can...”).

Fifth, this study included both undergraduate and graduate students, (i.e., master’s and PhD students). As evident from the data, these students have different experiences at the university, which could be due to maturity and age as well as likely a different end-goal when pursuing their higher education. Future work should aim to exclusively focus on one of these groups of students, or collect a large enough sample so that meaningful comparisons between the two groups can be made. . As the different expectations, may mean that programs might need to be tailored to the educational level of the students in order to best accommodate the needs of each student group.

Finally, this research used self-developed scales to measure the expectancy violations participants experienced. No standardized scales were available for the purpose of this study, which created the necessity to establish new scales. Items were created to

reflect how expectancy violations are conceptualized within EVT. The factor analyses, reliability coefficients, and findings that emerged (suggesting predictive validity) provide preliminary evidence that these new scales have merit, but future research needs to further validate them.

## **Conclusion**

This research examined the relationship between how expectancy violations related to university support, U.S. Americans, and international students are associated with acculturation, loneliness, and well-being. In addition, it sought to understand how students' social capital relates to these variables. The research showed that when expectancies about university support are positively violated, students concurrently report more acculturation, less loneliness, and more well-being in terms of both emotional well-being (the WHO-5) and flourishing. This finding can also be read as showing that negative expectancy violations regarding university support are related to less acculturation, more loneliness, and less well-being. Expectancy violations about inclusion with U.S. Americans and interaction with international students showed similar relationships. When students reported that their expectations about inclusion with U.S. students were positively violated, they tended to also report more acculturation and well-being, and when they reported that their expectations about international students were positively violated, they tended to also report less loneliness and more well-being. No significant relationships were found between international students' social capital and acculturation, loneliness, or well-being, suggesting that the amount of social capital is not as important as the degree and valence of expectancy violations.

The research also confirmed a basic tenet of Burgoon's (1978) expectancy violation theory by showing that positive expectancy violations are associated with favorable outcomes for international students studying abroad, whereas negative expectancy violations are associated with experiencing challenges. Findings also provide insight into how important the expectancies people have as compared to the perceived reality they live in based on their day-to-day experiences related to social capital. In addition to confirming the importance of expectancy violations, this research provided a springboard for suggesting guidelines for international programs in supporting students through their move abroad, to best reduce stressors associated with this experience. More research should be conducted to understand how these suggestions impact student experiences and how universities can set and exceed expectations in ways that help international students flourish.

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APPENDIX A  
IRB EXEMPTION



#### EXEMPTION GRANTED

Joris Van Ouytsel  
CLAS-SS: Human Communication, Hugh Downs School of  
602/543-3476  
joris.vanouytzel@asu.edu

Dear [Joris Van Ouytsel](#):

On 11/30/2023 the ASU IRB reviewed the following protocol:

|                     |                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type of Review:     | Initial Study                                                                                                                                                                                                                                                                                                                                                                          |
| Title:              | Associations between Expectancy Violations and International Students' Perceptions of Acculturation, Loneliness and Emotional Well-Being                                                                                                                                                                                                                                               |
| Investigator:       | <a href="#">Joris Van Ouytsel</a>                                                                                                                                                                                                                                                                                                                                                      |
| IRB ID:             | STUDY00019072                                                                                                                                                                                                                                                                                                                                                                          |
| Funding:            | None                                                                                                                                                                                                                                                                                                                                                                                   |
| Grant Title:        | None                                                                                                                                                                                                                                                                                                                                                                                   |
| Grant ID:           | None                                                                                                                                                                                                                                                                                                                                                                                   |
| Documents Reviewed: | <ul style="list-style-type: none"><li>• Approval recruitment, Category: Other;</li><li>• Consent form 2, Category: Consent Form;</li><li>• Protocol 2, Category: IRB Protocol;</li><li>• Questionnaire 2, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);</li><li>• Recruitment flyer 1, Category: Recruitment Materials;</li></ul> |

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (2)(ii) Tests, surveys, interviews, or observation (low risk) on 11/30/2023.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

APPENDIX B

IRB MODIFICATIONS



EXEMPTION GRANTED

Joris Van Ouytsel  
CLAS-SS: Human Communication, Hugh Downs School of  
602/543-3476  
joris.vanouytzel@asu.edu

Dear [Joris Van Ouytsel](#):

On 1/2/2024 the ASU IRB reviewed the following protocol:

|                     |                                                                                                                                          |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Type of Review:     | Modification / Update                                                                                                                    |
| Title:              | Associations between Expectancy Violations and International Students' Perceptions of Acculturation, Loneliness and Emotional Well-Being |
| Investigator:       | <a href="#">Joris Van Ouytsel</a>                                                                                                        |
| IRB ID:             | STUDY00019072                                                                                                                            |
| Funding:            | None                                                                                                                                     |
| Grant Title:        | None                                                                                                                                     |
| Grant ID:           | None                                                                                                                                     |
| Documents Reviewed: | • Protocol 3, Category: IRB Protocol;                                                                                                    |

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (2)(ii) Tests, surveys, interviews, or observation (low risk) on 1/2/2024.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

If any changes are made to the study, the IRB must be notified at [research.integrity@asu.edu](mailto:research.integrity@asu.edu) to determine if additional reviews/approvals are required. Changes may include but not limited to revisions to data collection, survey and/or interview questions, and vulnerable populations, etc.

Sincerely,

APPENDIX C  
RECRUITMENT FLYER

# INTERNATIONAL STUDENT SURVEY



## STUDY

This study seeks to understand the expectations international students have when moving to the USA and how the study abroad reality impacts experiences



## PARTICIPANTS

You are:

- An international student
- At least 18 years old

## RESEARCH

This survey research is conducted through Arizona State University.



## QR CODE

Scan the QR code to participate. Participation is voluntary. If you have questions about the study contact: Kiki van Essen at [cvanesse@asu.edu](mailto:cvanesse@asu.edu)

APPENDIX D

INFORMED CONSENT

Welcome to the research study!

I am a graduate student in the Hugh Downs School of Human Communication, College of Liberal Arts and Sciences at Arizona State University. I am conducting a research study on expectations of international students before moving abroad and the impact on their study abroad experiences and I am inviting your participation!

The study should take you around 10-15 minutes to complete. Your participation in this study is voluntary. You have the right not to answer any question, and to stop participation at any time. If you choose not to participate or to withdraw from the study at any time, there will be no penalty. You have the right to withdraw at any point during the study, for any reason, and without any prejudice. There are no foreseeable risks or discomforts to your participation.

Please be assured that your responses will be completely confidential. The results of this study may be used in reports, presentations, or publications but your name will not be used.

If you have any questions concerning the research study, please contact the research team at Christina van Essen, e-mail: [cvanesse@asu.edu](mailto:cvanesse@asu.edu) or PI Dr. Joris Van Ouytsel, e-mail: [joris.vanouytsel@asu.edu](mailto:joris.vanouytsel@asu.edu).

If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788. Please let me know if you wish to be part of the study or participate in activities for political wellbeing in the future. By clicking the button below, you acknowledge that your participation in the study is voluntary, you are 18 years of age, and that you are aware that you may choose to terminate your participation in the study at any time and for any reason. Please note that this survey will be best displayed on a laptop or desktop computer. Some features may be less compatible for use on a mobile device.

You can participate if you are:

- An international student
- 18 years or older

By clicking next you consent to the survey and confirm you meet all participation requirements.

APPENDIX E

SURVEY MEASURES

Gender What is your gender

- ☐ Male (1)
- ☐ Female (2)
- ☐ Non-binary / third gender (3)
- ☐ Prefer not to say (4)

Age What is your age?

---



country What country are you from?

▼ Afghanistan (1) ... Zimbabwe (1357)

Country\_Alt If your country was not listed, what country are you from?

---

University\_Name Which U.S. university do you currently attend? (Please write the full university name, e.g. Arizona State University, not ASU)

---

Months\_USA How many months ago did you first move to the United States?

---

Travel\_USA Did you ever travel to the United States prior to your study abroad? If yes, please insert the number of weeks you have spent in the United States of your combined visits.

☐ No (1)

☐ Yes (2) \_\_\_\_\_

Education level I am a(n)...

- ☐ Undergraduate Freshman (first year) (1)
  - ☐ Undergraduate Sophomore (second year) (2)
  - ☐ Undergraduate Junior (third year) (3)
  - ☐ Undergraduate Senior (fourth year) (4)
  - ☐ Masters student (5)
  - ☐ PhD Student (6)
  - ☐ Non-degree seeking student (7)
- 

Family in US How many close family members (parents, siblings, children, or spouse only) do you have in the United States? If you have none, please put 0

---

*Display This Question:*

*If How many close family members (parents, siblings, children, or spouse only) do you have in the Un... =*

What family member What is the relationship to your family member(s)?

☐

Father (1)

☐

Mother (2)

☐

Romantic partner or spouse from outside the United States (3)

☐

Romantic partner or spouse from the United States (4)

☐

Sibling(s) (5)

☐

Uncle (6)

☐

Aunt (7)

☐

Cousin(s) (8)

☐

Grandparent(s) (9)

☐

Other, namely (10) \_\_\_\_\_

-----

Language proficiency What is your English proficiency?

- ☐ Native / Bilingual Proficiency (1)
  - ☐ Full Professional Proficiency (2)
  - ☐ Professional Working Proficiency (3)
  - ☐ Limited Working Proficiency (4)
  - ☐ Elementary Proficiency (5)
  - ☐ No Proficiency (6)
-

Research meth Prior to coming to the United States, what methods did you use to inform yourself about your study abroad? (select all that apply)

|                                                         | None at all<br>(1)    | A little (2)          | A moderate<br>amount (3) | A lot (4)             | A great deal<br>(5)   |
|---------------------------------------------------------|-----------------------|-----------------------|--------------------------|-----------------------|-----------------------|
| An agency<br>(1)                                        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>    | <input type="radio"/> | <input type="radio"/> |
| Direct<br>contact with<br>the<br>university (2)         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>    | <input type="radio"/> | <input type="radio"/> |
| The<br>university<br>website (3)                        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>    | <input type="radio"/> | <input type="radio"/> |
| Online<br>forums (e.g.<br>Reddit,<br>blogs) (4)         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>    | <input type="radio"/> | <input type="radio"/> |
| Social media<br>(e.g.<br>Facebook,<br>Instagram)<br>(5) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>    | <input type="radio"/> | <input type="radio"/> |
| News sources<br>from my own<br>country (6)              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>    | <input type="radio"/> | <input type="radio"/> |
| U.S. news<br>sources (7)                                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>    | <input type="radio"/> | <input type="radio"/> |
| Family or<br>friends in the<br>United States<br>(8)     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>    | <input type="radio"/> | <input type="radio"/> |
| Others,<br>namely... (9)                                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>    | <input type="radio"/> | <input type="radio"/> |

End of Block: Demographic Information

---

**Start of Block: Interaction with international programs (self-developed)**

Q92 The following section will ask you questions about the expectations you had before coming to the United States and how your current experience is. Please think back to the time before you moved to the United States and what expectations you had.

---

Uni\_Exp The staff at the university...

|                                                      | A lot less<br>than<br>expected (1) | Less than<br>expected (2) | Neither<br>more nor<br>less than<br>expected (3) | More than<br>expected (4) | A lot more<br>than<br>expected (5) |
|------------------------------------------------------|------------------------------------|---------------------------|--------------------------------------------------|---------------------------|------------------------------------|
| Invites me to<br>events (1)                          | <input type="radio"/>              | <input type="radio"/>     | <input type="radio"/>                            | <input type="radio"/>     | <input type="radio"/>              |
| Is friendly (2)                                      | <input type="radio"/>              | <input type="radio"/>     | <input type="radio"/>                            | <input type="radio"/>     | <input type="radio"/>              |
| Will help if I<br>face<br>challenges in<br>life (3)  | <input type="radio"/>              | <input type="radio"/>     | <input type="radio"/>                            | <input type="radio"/>     | <input type="radio"/>              |
| Supports<br>international<br>students like<br>me (4) | <input type="radio"/>              | <input type="radio"/>     | <input type="radio"/>                            | <input type="radio"/>     | <input type="radio"/>              |
| Cares if I feel<br>alone (5)                         | <input type="radio"/>              | <input type="radio"/>     | <input type="radio"/>                            | <input type="radio"/>     | <input type="radio"/>              |

---

**End of Block: Interaction with international programs (self-developed)**

Start of Block: Friendship with Americans (self-developed)

Q94 The following section will ask you questions about the expectations you had about **U.S. Americans** before coming to the United States and how your current experience is.

---

FwA\_1 I have made friends with U.S. Americans

- ☐ A lot more than expected (1)
  - ☐ More than expected (2)
  - ☐ Neither more or less than expected (3)
  - ☐ Less than expected (4)
  - ☐ A lot less than expected (5)
-

FwA\_2 When I face challenges, I can seek support from U.S. Americans

- ☐ A lot more than expected (1)
  - ☐ More than expected (2)
  - ☐ Neither more or less than expected (3)
  - ☐ Less than expected (4)
  - ☐ A lot less than expected (5)
- 

FwA\_3 U.S. Americans are friendly to me

- ☐ A lot more than expected (1)
  - ☐ More than expected (2)
  - ☐ Neither more or less than expected (3)
  - ☐ Less than expected (4)
  - ☐ A lot less than expected (5)
-

FwA\_4 I can call on U.S. Americans to do something fun together

- ☐ A lot more than expected (1)
  - ☐ More than expected (2)
  - ☐ Neither more or less than expected (3)
  - ☐ Less than expected (4)
  - ☐ A lot less than expected (5)
- 

FwA\_5 I am invited to activities by U.S. Americans

- ☐ A lot more than expected (1)
  - ☐ More than expected (2)
  - ☐ Neither more or less than expected (3)
  - ☐ Less than expected (4)
  - ☐ A lot less than expected (5)
-

FwA\_6 U.S. Americans are supportive

- ☐ A lot more than expected (1)
- ☐ More than expected (2)
- ☐ Neither more or less than expected (3)
- ☐ Less than expected (4)
- ☐ A lot less than expected (5)

End of Block: Friendship with Americans (self-developed)

---

Start of Block: Friends with International (Self-developed)

Q97 The following section will ask you questions about the expectations you had about **international students** before coming to the United States and how your current experience is.

---

FwI\_1 I have made friends with international students

- ☐ A lot more than expected (1)
  - ☐ More than expected (2)
  - ☐ Neither more or less than expected (3)
  - ☐ Less than expected (4)
  - ☐ A lot less than expected (5)
- 

FwI\_2 When I face challenges, I can seek support from international students

- ☐ A lot more than expected (1)
  - ☐ More than expected (2)
  - ☐ Neither more or less than expected (3)
  - ☐ Less than expected (4)
  - ☐ A lot less than expected (5)
-

FwI\_3 International students are friendly to me

- ☐ A lot more than expected (1)
  - ☐ More than expected (2)
  - ☐ Neither more or less than expected (3)
  - ☐ Less than expected (4)
  - ☐ A lot less than expected (5)
- 

FwI\_4 I can call on international students to do something fun together

- ☐ A lot more than expected (1)
  - ☐ More than expected (2)
  - ☐ Neither more or less than expected (3)
  - ☐ Less than expected (4)
  - ☐ A lot less than expected (5)
-

FwI\_5 I am invited to activities by international students

- ☐ A lot more than expected (1)
  - ☐ More than expected (2)
  - ☐ Neither more or less than expected (3)
  - ☐ Less than expected (4)
  - ☐ A lot less than expected (5)
- 

FwI\_6 International students are supportive

- ☐ A lot more than expected (1)
- ☐ More than expected (2)
- ☐ Neither more or less than expected (3)
- ☐ Less than expected (4)
- ☐ A lot less than expected (5)

**End of Block: Friends with International (Self-developed)**

---

**Start of Block: Acculturation Stress- CULTURAL ADAPTATION AND ADJUSTMENT SCALE (CAAS)**

AccStress\_1 I feel I function well in the United States

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
- 

AccStress\_2 I feel I have a clear identity in the United States

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
-

AccStress\_3 I feel I have a deep connection to the United States

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
- 

AccStress\_4 I feel I have a sense of community with others around me in the United States

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
-

AccStress\_5 I feel I belong in the United States culture

- ☐ Strongly agree (1)
- ☐ Somewhat agree (2)
- ☐ Neither agree nor disagree (3)
- ☐ Somewhat disagree (4)
- ☐ Strongly disagree (5)

**End of Block: Acculturation Stress- CULTURAL ADAPTATION AND ADJUSTMENT SCALE (CAAS)**

---

**Start of Block: Loneliness**

Lonely\_1 I am unhappy doing so many things alone

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
-

Lonely\_2 I have nobody to talk to

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
- 

Lonely\_3 I cannot tolerate being so alone

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
-

Lonely\_4 I lack companionship

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
- 

Lonely\_5 I feel as if nobody really understands me

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
-

Lonely\_6 I find myself waiting for people to call or write

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
- 

Lonely\_7 There is no one I can turn to

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
-

Lonely\_8 I am no longer close to anyone

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
- 

Lonely\_9 My interests and ideas are not shared by those around me

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
-

Lonely\_10 I feel left out

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
- 

Lonely\_11 I feel completely alone

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
-

Lonely\_12 I am unable to reach out and communicate with those around me

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
- 

Lonely\_13 My social relationships are superficial

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
-

Lonely\_14 I feel starved for company

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
- 

Lonely\_15 No one really knows me well

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
-

Lonely\_16 I feel isolated from others

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
- 

Lonely\_17 I am unhappy being so withdrawn

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
-

Lonely\_18 It is difficult for me to make friends

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
- 

Lonely\_19 I feel shut out and excluded by others

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
-

Lonely\_20 People are around me but not with me

- ☐ Strongly agree (1)
- ☐ Somewhat agree (2)
- ☐ Neither agree nor disagree (3)
- ☐ Somewhat disagree (4)
- ☐ Strongly disagree (5)

**End of Block: Loneliness**

---

**Start of Block: Psychological well-being WHO**

WHO Over the past 2 weeks...

|                                                                                  | All of the<br>time (1) | Most of<br>the time<br>(2) | More than<br>half the<br>time (3) | Less than<br>half the<br>time (4) | Some of<br>the time<br>(5) | At no time<br>(6)     |
|----------------------------------------------------------------------------------|------------------------|----------------------------|-----------------------------------|-----------------------------------|----------------------------|-----------------------|
| I have felt<br>cheerful<br>and in<br>good<br>spirits (1)                         | <input type="radio"/>  | <input type="radio"/>      | <input type="radio"/>             | <input type="radio"/>             | <input type="radio"/>      | <input type="radio"/> |
| I have felt<br>calm and<br>relaxed (2)                                           | <input type="radio"/>  | <input type="radio"/>      | <input type="radio"/>             | <input type="radio"/>             | <input type="radio"/>      | <input type="radio"/> |
| I have felt<br>active and<br>vigorous<br>(3)                                     | <input type="radio"/>  | <input type="radio"/>      | <input type="radio"/>             | <input type="radio"/>             | <input type="radio"/>      | <input type="radio"/> |
| I woke up<br>feeling<br>fresh and<br>rested (4)                                  | <input type="radio"/>  | <input type="radio"/>      | <input type="radio"/>             | <input type="radio"/>             | <input type="radio"/>      | <input type="radio"/> |
| My daily<br>life has<br>been filled<br>with things<br>that<br>interest<br>me (5) | <input type="radio"/>  | <input type="radio"/>      | <input type="radio"/>             | <input type="radio"/>             | <input type="radio"/>      | <input type="radio"/> |

End of Block: Psychological well-being WHO

Start of Block: Psychological well-being scale

PsychWell\_1 I lead a purposeful and meaningful life

- ☐ Strongly agree (1)
  - ☐ Agree (2)
  - ☐ Slightly agree (3)
  - ☐ Mixed or neither agree or disagree (4)
  - ☐ Slightly disagree (5)
  - ☐ Disagree (6)
  - ☐ Strongly disagree (7)
- 

PsychWell\_2 My social relationships are supportive and rewarding

- ☐ Strongly agree (1)
  - ☐ Agree (2)
  - ☐ Slightly agree (3)
  - ☐ Mixed or neither agree or disagree (4)
  - ☐ Slightly disagree (5)
  - ☐ Disagree (6)
  - ☐ Strongly disagree (7)
-

PsychWell\_3 I am engaged and interested in my daily activities

- ☐ Strongly agree (1)
  - ☐ Agree (2)
  - ☐ Slightly agree (3)
  - ☐ Mixed or neither agree or disagree (4)
  - ☐ Slightly disagree (5)
  - ☐ Disagree (6)
  - ☐ Strongly disagree (7)
- 

PsychWell\_4 I actively contribute to the happiness and well-being of others

- ☐ Strongly agree (1)
- ☐ Agree (2)
- ☐ Slightly agree (3)
- ☐ Mixed or neither agree or disagree (4)
- ☐ Slightly disagree (5)
- ☐ Disagree (6)
- ☐ Strongly disagree (7)

---

PsychWell\_5 I am competent and capable in the activities that are important to me

- ☐ Strongly agree (1)
  - ☐ Agree (2)
  - ☐ Slightly agree (3)
  - ☐ Mixed or neither agree or disagree (4)
  - ☐ Slightly disagree (5)
  - ☐ Disagree (6)
  - ☐ Strongly disagree (7)
- 

PsychWell\_6 I am a good person and live a good life

- ☐ Strongly agree (1)
- ☐ Agree (2)
- ☐ Slightly agree (3)
- ☐ Mixed or neither agree or disagree (4)
- ☐ Slightly disagree (5)
- ☐ Disagree (6)
- ☐ Strongly disagree (7)

---

PsychWell\_7 I am optimistic about my future

- ☐ Strongly agree (1)
  - ☐ Agree (2)
  - ☐ Slightly agree (3)
  - ☐ Mixed or neither agree or disagree (4)
  - ☐ Slightly disagree (5)
  - ☐ Disagree (6)
  - ☐ Strongly disagree (7)
- 

PsychWell\_8 People respect me

- ☐ Strongly agree (1)
- ☐ Agree (2)
- ☐ Slightly agree (3)
- ☐ Mixed or neither agree or disagree (4)
- ☐ Slightly disagree (5)
- ☐ Disagree (6)
- ☐ Strongly disagree (7)

## End of Block: Psychological well-being scale

### Start of Block: Social Capital

SocCap In the United States, I have people with whom I can...

|                                          | Strongly<br>disagree (1) | Disagree (2)          | Neither<br>agree nor<br>disagree (3) | Agree (4)             | Strongly<br>agree (5) |
|------------------------------------------|--------------------------|-----------------------|--------------------------------------|-----------------------|-----------------------|
| Share meals<br>together (1)              | <input type="radio"/>    | <input type="radio"/> | <input type="radio"/>                | <input type="radio"/> | <input type="radio"/> |
| Celebrate<br>special<br>occasions (2)    | <input type="radio"/>    | <input type="radio"/> | <input type="radio"/>                | <input type="radio"/> | <input type="radio"/> |
| Socialize<br>together (3)                | <input type="radio"/>    | <input type="radio"/> | <input type="radio"/>                | <input type="radio"/> | <input type="radio"/> |
| Go to places<br>together (4)             | <input type="radio"/>    | <input type="radio"/> | <input type="radio"/>                | <input type="radio"/> | <input type="radio"/> |
| Exchange<br>favors (5)                   | <input type="radio"/>    | <input type="radio"/> | <input type="radio"/>                | <input type="radio"/> | <input type="radio"/> |
| Borrow<br>things back<br>and forth (6)   | <input type="radio"/>    | <input type="radio"/> | <input type="radio"/>                | <input type="radio"/> | <input type="radio"/> |
| Ask for help<br>when I am<br>sick (7)    | <input type="radio"/>    | <input type="radio"/> | <input type="radio"/>                | <input type="radio"/> | <input type="radio"/> |
| Exchange<br>useful<br>information<br>(8) | <input type="radio"/>    | <input type="radio"/> | <input type="radio"/>                | <input type="radio"/> | <input type="radio"/> |
| Discuss<br>struggles (9)                 | <input type="radio"/>    | <input type="radio"/> | <input type="radio"/>                | <input type="radio"/> | <input type="radio"/> |

SocCapNumber In a typical week, I have personal communication with about \_\_\_\_\_  
people in the U.S.

\_\_\_\_\_

End of Block: Social Capital

---

Start of Block: Study Abroad Satisfaction (Self-developed)

StudySat\_1 My study abroad is worth it

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
- \_\_\_\_\_

StudySat\_2 My study abroad helps me grow as a person

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
- 

StudySat\_3 My study abroad provides me an opportunity to a more satisfactory career than I could do with education back home

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
-

StudySat\_4 My study abroad helped me get a better understanding of the world

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
- 

StudySat\_5 My study abroad provides me meaningful long-term relationships

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
-

StudySat\_6 My study abroad makes me happy overall

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
- 

StudySat\_7 My study abroad was a good decision

- ☐ Strongly agree (1)
  - ☐ Somewhat agree (2)
  - ☐ Neither agree nor disagree (3)
  - ☐ Somewhat disagree (4)
  - ☐ Strongly disagree (5)
-

StudySat\_8 My study abroad experience makes me recommend studying abroad to friends back home

- ☐ Strongly agree (1)
- ☐ Somewhat agree (2)
- ☐ Neither agree nor disagree (3)
- ☐ Somewhat disagree (4)
- ☐ Strongly disagree (5)

**End of Block: Study Abroad Satisfaction (Self-developed)**

---

APPENDIX F

DEMOGRAPHIC STATISTICS

Table 5

*Demographic Statistics*

| Sample Characteristics                 | <i>n</i> | %     | Range   | M     | SD    |
|----------------------------------------|----------|-------|---------|-------|-------|
| Men                                    | 62       | 45.6% |         |       |       |
| Women                                  | 73       | 53.7% |         |       |       |
| Unspecified                            | 1        | 0.7%  |         |       |       |
| <b>Age</b>                             | 136      |       | 18 - 50 | 24.90 | 5.32  |
| <b>Year in College</b>                 |          |       |         |       |       |
| Freshman                               | 11       | 8.1%  |         |       |       |
| Sophomore                              | 14       | 10.3% |         |       |       |
| Junior                                 | 9        | 6.6%  |         |       |       |
| Senior                                 | 4        | 2.9%  |         |       |       |
| Masters                                | 67       | 49.3% |         |       |       |
| PhD                                    | 29       | 21.3% |         |       |       |
| Non-degree seeking                     | 1        | 0.7%  |         |       |       |
| Months in the U.S.A.                   | 134      |       | 0 - 264 | 22.34 | 35.54 |
| Number of Family Members in the U.S.A. | 134      |       | 0 - 8+  | 0.75  | 1.63  |
| English proficiency                    |          |       |         |       |       |
| Native/Bilingual Proficiency           | 34       | 25%   |         |       |       |
| Full English Proficiency               | 44       | 32.4  |         |       |       |
| Professional Working Proficiency       | 43       | 31.6% |         |       |       |
| Limited Working Proficiency            | 13       | 9.6%  |         |       |       |